

Package ‘simplevis’

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Type Package

Title Simple Visualisation with 'ggplot2' and 'leaflet' Wrappers

Version 2.0.0

Description Support effortless high quality 'ggplot2' and 'leaflet' visualisations for reports or interactive 'shiny' apps through wrapping functions.

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URL <https://statisticsnz.github.io/simplevis/>,
<https://github.com/statisticsnz/simplevis/>

BugReports <https://github.com/statisticsNZ/simplevis/issues/>

Encoding UTF-8

LazyData true

Depends R (>= 3.5.0)

Imports dplyr, DT, forcats, ggplot2, htmltools, leaflet, leafpop,
leaflet.extras, janitor, jsonlite, lubridate, magrittr,
methods, plotly, readr, rgdal, rmarkdown, rlang, scales, sf,
shiny, shinycssloaders, stars, stats, stringr, tibble, tidyr
(>= 1.0.0), viridis

Suggests knitr

RoxygenNote 6.1.1

VignetteBuilder knitr

NeedsCompilation no

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a4_height_mm	<i>A4 useable height.</i>
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Description

The height of useable space within an a4 sheet.

Usage

a4_height_mm

Format

An object of class numeric of length 1.

Value

A numeric value.

a4_width_mm	<i>A4 useable width.</i>
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Description

The width of useable space within an a4 sheet.

Usage

```
a4_width_mm
```

Format

An object of class `numeric` of length 1.

Value

A numeric value.

add_tip	<i>Add a quick tooltip text column to data.</i>
---------	---

Description

Add a column of tooltip text which is automatically created based on column names and values.

Usage

```
add_tip(data, vars_vctr, comma = FALSE)
```

Arguments

<code>data</code>	A tibble or dataframe. Required input.
<code>vars_vctr</code>	A vector of quoted variables to include in the tooltip. Required input.
<code>comma</code>	TRUE or FALSE of whether to convert numeric values to character values with comma separators.

Value

A vector of labels.

Examples

```
library(dplyr)

plot_data <- slice_sample(ggplot2::diamonds, prop = 0.05) %>%
  add_tip(vars_vctr = c("carat", "price"), comma = TRUE)

plot <- ggplot_scatter(data = plot_data, x_var = carat, y_var = price,
                      tip_var = tip_text,
                      title = "Diamond price by carat",
                      x_title = "Carat",
                      y_title = "Price ($US thousands)")

plotly::ggplotly(plot, tooltip = "text")
```

```
example_sf_nz_livestock
```

Example sf object of New Zealand livestock.

Description

Example sf object of New Zealand livestock.

Usage

```
example_sf_nz_livestock
```

Format

An sf object.

Examples

```
example_sf_nz_livestock
```

```
example_sf_nz_river_wq
```

Example sf object of New Zealand river water quality trends.

Description

Example sf object of New Zealand river water quality trends.

Usage

```
example_sf_nz_river_wq
```

Format

An sf object.

Examples

```
example_sf_nz_river_wq
```

```
example_stars_nz_drp
```

Example stars object of New Zealand modelled river water DRP concentrations.

Description

Example stars object of New Zealand modelled river water dissolved reactive phosphorus concentrations.

Usage

```
example_stars_nz_drp
```

Format

An stars object.

Examples

```
example_stars_nz_drp
```

```
example_stars_nz_no3n
```

Example stars object of New Zealand modelled river water NO3N concentrations.

Description

Example stars object of New Zealand modelled river water nitrate concentrations.

Usage

```
example_stars_nz_no3n
```

Format

An stars object.

Examples

```
example_stars_nz_no3n
```

ggplot_box

*Boxplot ggplot.***Description**

Boxplot ggplot that is not coloured and not faceted.

Usage

```
ggplot_box(data, x_var, y_var = NULL, group_var = NULL,
  stat = "boxplot", x_labels = waiver(), x_pretty_n = 6,
  y_zero = TRUE, y_zero_line = TRUE, y_trans = "identity",
  y_labels = waiver(), y_pretty_n = 5, pal = NULL, width = 0.5,
  title = "[Title]", subtitle = NULL, x_title = "[X title]",
  y_title = "[Y title]", caption = NULL, font_family = "Helvetica",
  font_size_title = NULL, font_size_body = NULL, wrap_title = 70,
  wrap_subtitle = 80, wrap_x_title = 50, wrap_y_title = 50,
  wrap_caption = 80, isMobile = FALSE)
```

Arguments

data	A tibble or dataframe. Required input.
x_var	Unquoted variable to be on the x axis. Required input.
y_var	Unquoted numeric variable to be on the y axis. Defaults to NULL. Required if stat equals "boxplot".
group_var	Unquoted variable to be the grouping variable Defaults to NULL. Only applicable if stat equals "boxplot".
stat	String of "boxplot" or "identity". Defaults to "boxplot". If identity is selected, data provided must be grouped by the x_var with ymin, lower, middle, upper, ymax variables. Note "identity" does not provide outliers.
x_labels	Argument to adjust the format of the x scale labels.
x_pretty_n	The desired number of intervals on the x axis, as calculated by the pretty algorithm. Defaults to 6. Only applicable to a x variable that is categorical or date.
y_zero	TRUE or FALSE of whether the minimum of the y scale is zero. Defaults to TRUE.
y_zero_line	TRUE or FALSE whether to add a zero line in for when values are above and below zero. Defaults to TRUE.
y_trans	TRUEransformation of y-axis scale (e.g. "signed_sqrt"). Defaults to "identity", which has no transformation.
y_labels	Argument to adjust the format of the y scale labels.
y_pretty_n	The desired number of intervals on the y axis, as calculated by the pretty algorithm. Defaults to 5.

<code>pal</code>	Character vector of hex codes. Defaults to NULL, which selects the Stats NZ palette.
<code>width</code>	Width of the box. Defaults to 0.5.
<code>title</code>	Title string. Defaults to "[Title]".
<code>subtitle</code>	Subtitle string. Defaults to "[Subtitle]".
<code>x_title</code>	X axis title string. Defaults to "[X title]".
<code>y_title</code>	Y axis title string. Defaults to "[Y title]".
<code>caption</code>	Caption title string. Defaults to NULL.
<code>font_family</code>	Font family to use. Defaults to "Helvetica".
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_x_title</code>	Number of characters to wrap the x title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_y_title</code>	Number of characters to wrap the y title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the <code>mobileDetect</code> function, then use <code>isMobile = input\$isMobile</code> .

Value

A ggplot object.

Examples

```
library(dplyr)

plot_data <- iris %>%
  tibble::as_tibble() %>%
  mutate(Species = stringr::str_to_sentence(Species))

plot <- ggplot_box(data = plot_data, x_var = Species, y_var = Petal.Length,
                  title = "Iris petal length by species",
                  x_title = "Species",
                  y_title = "Petal length (cm)")

plot

plotly::ggplotly(plot)
```

```

plot_data <- iris %>%
  group_by(Species) %>%
  summarise(boxplot_stats = list(rlang::set_names(boxplot.stats(Petal.Length)$stats,
c('ymin', 'lower', 'middle', 'upper', 'ymax')))) %>%
  tidyr::unnest_wider(boxplot_stats)

ggplot_box(data = plot_data, x_var = Species, y_var = Petal.Length, stat = "identity")

```

ggplot_box_facet *Boxplot ggplot that is faceted.*

Description

Boxplot ggplot that is faceted, but not coloured.

Usage

```

ggplot_box_facet(data, x_var, y_var = NULL, facet_var,
  group_var = NULL, stat = "boxplot", x_labels = waiver(),
  x_pretty_n = 5, y_zero = TRUE, y_zero_line = TRUE,
  y_trans = "identity", y_labels = waiver(), y_pretty_n = 5,
  facet_scales = "fixed", facet_nrow = NULL, pal = NULL,
  width = 0.5, title = "[Title]", subtitle = NULL,
  x_title = "[X title]", y_title = "[Y title]", caption = NULL,
  font_family = "Helvetica", font_size_title = NULL,
  font_size_body = NULL, wrap_title = 70, wrap_subtitle = 80,
  wrap_x_title = 50, wrap_y_title = 50, wrap_caption = 80,
  isMobile = FALSE)

```

Arguments

<code>data</code>	An tibble or dataframe. Required input.
<code>x_var</code>	Unquoted variable to be on the x axis. Required input.
<code>y_var</code>	Unquoted numeric variable to be on the y axis. Defaults to NULL. Required if stat equals "boxplot".
<code>facet_var</code>	Unquoted categorical variable to facet the data by. Required input.
<code>group_var</code>	Unquoted variable to be the grouping variable Defaults to NULL. Only applicable if stat equals "boxplot".
<code>stat</code>	String of "boxplot" or "identity". Defaults to "boxplot". If identity is selected, data provided must be grouped by the <code>x_var</code> and <code>facet_var</code> with <code>ymin</code> , <code>lower</code> , <code>middle</code> , <code>upper</code> , <code>ymax</code> variables. Note "identity" does not provide outliers.
<code>x_labels</code>	Argument to adjust the format of the x scale labels.
<code>x_pretty_n</code>	The desired number of intervals on the x axis, as calculated by the pretty algorithm. Defaults to 5. Only applicable to a x variable that is categorical or date.

<code>y_zero</code>	TRUE or FALSE of whether the minimum of the y scale is zero. Defaults to TRUE.
<code>y_zero_line</code>	TRUE or FALSE whether to add a zero line in for when values are above and below zero. Defaults to TRUE.
<code>y_trans</code>	TRUE transformation of y-axis scale (e.g. "signed_sqrt"). Defaults to "identity", which has no transformation.
<code>y_labels</code>	Argument to adjust the format of the y scale labels.
<code>y_pretty_n</code>	The desired number of intervals on the y axis, as calculated by the pretty algorithm. Defaults to 5.
<code>facet_scales</code>	Whether <code>facet_scales</code> should be "fixed" across facets, "free" in both directions, or free in just one direction (i.e. "free_x" or "free_y"). Defaults to "fixed".
<code>facet_nrow</code>	The number of rows of faceted plots. Defaults to NULL, which generally chooses 2 rows. Not applicable to where <code>isMobile</code> is TRUE.
<code>pal</code>	Character vector of hex codes. Defaults to NULL, which selects the Stats NZ palette.
<code>width</code>	Width of the box. Defaults to 0.5.
<code>title</code>	Title string. Defaults to "[Title]".
<code>subtitle</code>	Subtitle string. Defaults to "[Subtitle]".
<code>x_title</code>	X axis title string. Defaults to "[X title]".
<code>y_title</code>	Y axis title string. Defaults to "[Y title]".
<code>caption</code>	Caption title string. Defaults to NULL.
<code>font_family</code>	Font family to use. Defaults to "Helvetica".
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_x_title</code>	Number of characters to wrap the x title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_y_title</code>	Number of characters to wrap the y title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the <code>mobileDetect</code> function, then use <code>isMobile = input\$isMobile</code> .

Value

A `ggplot` object.

Examples

```
library(dplyr)

plot_data <- ggplot2::diamonds %>%
  mutate(price_thousands = (price / 1000)) %>%
  slice_sample(prop = 0.05)

plot <- ggplot_box_facet(data = plot_data, x_var = cut, y_var = price_thousands, facet_var = color,
  facet_nrow = 4)

plot

plotly::ggplotly(plot)
```

ggplot_hbar	<i>Horizontal bar ggplot.</i>
-------------	-------------------------------

Description

Horizontal bar ggplot that is not coloured and not faceted.

Usage

```
ggplot_hbar(data, x_var, y_var, tip_var = NULL, x_labels = waiver(),
  x_zero = TRUE, x_zero_line = TRUE, x_trans = "identity",
  x_pretty_n = 6, y_rev = FALSE, y_labels = waiver(), pal = NULL,
  width = 0.75, na_grey = FALSE, title = "[Title]",
  subtitle = NULL, x_title = "[X title]", y_title = "[Y title]",
  caption = NULL, font_family = "Helvetica", font_size_title = NULL,
  font_size_body = NULL, wrap_title = 70, wrap_subtitle = 80,
  wrap_x_title = 50, wrap_y_title = 50, wrap_caption = 80,
  isMobile = FALSE)
```

Arguments

<code>data</code>	A tibble or dataframe. Required input.
<code>x_var</code>	Unquoted numeric variable to be on the x axis. Required input.
<code>y_var</code>	Unquoted categorical variable to be on the y axis. Required input.
<code>tip_var</code>	Unquoted variable to be used as a customised tooltip in combination with <code>plotly::ggplotly(plot)</code> . Defaults to <code>NULL</code> .
<code>x_labels</code>	Argument to adjust the format of the x scale labels.
<code>x_zero</code>	<code>TRUE</code> or <code>FALSE</code> whether the minimum of the x scale is zero. Defaults to <code>TRUE</code> .
<code>x_zero_line</code>	<code>TRUE</code> or <code>FALSE</code> whether to add a zero line in for when values are above and below zero. Defaults to <code>TRUE</code> .
<code>x_trans</code>	A string specifying a transformation for the x axis scale. Defaults to "identity".

<code>x_pretty_n</code>	The desired number of intervals on the x axis, as calculated by the pretty algorithm. Defaults to 6. Not applicable where <code>isMobile</code> equals TRUE.
<code>y_rev</code>	TRUE or FALSE of whether bar order from top to bottom is reversed from default. Defaults to FALSE.
<code>y_labels</code>	Argument to adjust the format of the y scale labels.
<code>pal</code>	Character vector of hex codes. Defaults to NULL, which selects the Stats NZ palette.
<code>width</code>	Width of bars. Defaults to 0.75.
<code>na_grey</code>	TRUE or FALSE of whether to provide wide grey bars for NA <code>y_var</code> values. Defaults to FALSE.
<code>title</code>	Title string. Defaults to [Title].
<code>subtitle</code>	Subtitle string. Defaults to [Subtitle].
<code>x_title</code>	X axis title string. Defaults to [X title].
<code>y_title</code>	Y axis title string. Defaults to [Y title].
<code>caption</code>	Caption title string. Defaults to NULL.
<code>font_family</code>	Font family to use. Defaults to "Helvetica".
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_x_title</code>	Number of characters to wrap the x title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_y_title</code>	Number of characters to wrap the y title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the <code>mobileDetect</code> function, then use <code>isMobile = input\$isMobile</code> .

Value

A ggplot object.

Examples

```
library(dplyr)

plot_data <- ggplot2::diamonds %>%
  mutate(cut = stringr::str_to_sentence(cut)) %>%
  group_by(cut) %>%
  summarise(average_price = mean(price)) %>%
```

```

mutate(average_price_thousands = round(average_price / 1000, 1))

plot <- ggplot_hbar(data = plot_data, x_var = average_price_thousands, y_var = cut,
  title = "Average diamond price by cut",
  x_title = "Average price ($US thousands)",
  y_title = "Cut")

plot

plotly::ggplotly(plot)

```

ggplot_hbar_col *Horizontal bar ggplot that is coloured.*

Description

Horizontal bar ggplot that is coloured, but not faceted.

Usage

```

ggplot_hbar_col(data, x_var, y_var, col_var, tip_var = NULL,
  x_labels = waiver(), x_zero = TRUE, x_zero_line = TRUE,
  x_trans = "identity", x_pretty_n = 6, y_rev = FALSE,
  y_labels = waiver(), col_rev = FALSE, col_drop = FALSE,
  position = "stack", pal = NULL, legend_ncol = 3, width = 0.75,
  title = "[Title]", subtitle = NULL, x_title = "[X title]",
  y_title = "[Y title]", col_title = "", caption = NULL,
  legend_labels = NULL, font_family = "Helvetica",
  font_size_title = NULL, font_size_body = NULL, wrap_title = 70,
  wrap_subtitle = 80, wrap_x_title = 50, wrap_y_title = 50,
  wrap_col_title = 25, wrap_caption = 80, isMobile = FALSE)

```

Arguments

data	A tibble or dataframe. Required input.
x_var	Unquoted numeric variable to be on the x axis. Required input.
y_var	Unquoted categorical variable to be on the y axis. Required input.
col_var	Unquoted categorical variable to colour the bars. Required input.
tip_var	Unquoted variable to be used as a customised tooltip in combination with plotly::ggplotly(plot). Defaults to NULL.
x_labels	Argument to adjust the format of the x scale labels.
x_zero	TRUE or FALSE whether the minimum of the x scale is zero. Defaults to TRUE.
x_zero_line	TRUE or FALSE whether to add a zero line in for when values are above and below zero. Defaults to TRUE.
x_trans	A string specifying a transformation for the x axis scale. Defaults to "identity".

<code>x_pretty_n</code>	The desired number of intervals on the x axis, as calculated by the pretty algorithm. Defaults to 6. Not applicable where <code>isMobile</code> equals TRUE.
<code>y_rev</code>	TRUE or FALSE of whether bar order from top to bottom is reversed from default. Defaults to FALSE.
<code>y_labels</code>	Argument to adjust the format of the y scale labels.
<code>col_rev</code>	TRUE or FALSE of whether bar fill order from left to right is reversed from default. Defaults to FALSE.
<code>col_drop</code>	TRUE or FALSE of whether to drop unused levels from the legend. Defaults to FALSE.
<code>position</code>	Whether bars are positioned by "stack" or "dodge". Defaults to "stack".
<code>pal</code>	Character vector of hex codes. Defaults to NULL, which selects the Stats NZ palette.
<code>legend_ncol</code>	The number of columns in the legend.
<code>width</code>	Width of bars. Defaults to 0.75.
<code>title</code>	Title string. Defaults to [Title].
<code>subtitle</code>	Subtitle string. Defaults to [Subtitle].
<code>x_title</code>	X axis title string. Defaults to [X title].
<code>y_title</code>	Y axis title string. Defaults to [Y title].
<code>col_title</code>	Colour title string for the legend. Defaults to NULL.
<code>caption</code>	Caption title string. Defaults to NULL.
<code>legend_labels</code>	A vector of manual legend label values. Defaults to NULL, which results in automatic labels.
<code>font_family</code>	Font family to use. Defaults to "Helvetica".
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_x_title</code>	Number of characters to wrap the x title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_y_title</code>	Number of characters to wrap the y title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_col_title</code>	Number of characters to wrap the colour title to. Defaults to 25. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the <code>mobileDetect</code> function, then use <code>isMobile = input\$sisMobile</code> .

Value

A ggplot object.

Examples

```
library(dplyr)

plot_data <- ggplot2::diamonds %>%
  mutate(cut = stringr::str_to_sentence(cut)) %>%
  group_by(cut, clarity) %>%
  summarise(average_price = mean(price)) %>%
  mutate(average_price_thousands = round(average_price / 1000, 1)) %>%
  ungroup()

plot <- ggplot_hbar_col(data = plot_data,
  x_var = average_price_thousands,
  y_var = cut,
  col_var = clarity,
  legend_ncol = 4,
  title = "Average diamond price by cut and clarity",
  x_title = "Average price ($US thousands)",
  y_title = "Cut")

plot

plotly::ggplotly(plot)
```

`ggplot_hbar_col_facet` *Horizontal bar ggplot that is coloured and faceted.*

Description

Horizontal bar ggplot that is coloured and faceted.

Usage

```
ggplot_hbar_col_facet(data, x_var, y_var, col_var, facet_var,
  tip_var = NULL, x_labels = waiver(), x_zero = TRUE,
  x_zero_line = TRUE, x_trans = "identity", x_pretty_n = 5,
  y_rev = FALSE, y_labels = waiver(), col_rev = FALSE,
  col_drop = FALSE, position = "stack", facet_scales = "fixed",
  facet_nrow = NULL, pal = NULL, legend_ncol = 3, width = 0.75,
  title = "[Title]", subtitle = NULL, x_title = "[X title]",
  y_title = "[Y title]", col_title = "", caption = NULL,
  legend_labels = NULL, font_family = "Helvetica",
  font_size_title = NULL, font_size_body = NULL, wrap_title = 70,
  wrap_subtitle = 80, wrap_x_title = 50, wrap_y_title = 50,
  wrap_col_title = 25, wrap_caption = 80, isMobile = FALSE)
```

Arguments

<code>data</code>	A tibble or dataframe. Required input.
<code>x_var</code>	Unquoted numeric variable to be on the x axis. Required input.
<code>y_var</code>	Unquoted categorical variable to be on the y axis. Required input.
<code>col_var</code>	Unquoted categorical variable to colour the bars. Required input.
<code>facet_var</code>	Unquoted categorical variable to facet the data by. Required input.
<code>tip_var</code>	Unquoted variable to be used as a customised tooltip in combination with <code>plotly::ggplotly(plot)</code> . Defaults to NULL.
<code>x_labels</code>	Argument to adjust the format of the x scale labels.
<code>x_zero</code>	TRUE or FALSE whether the minimum of the x scale is zero. Defaults to TRUE.
<code>x_zero_line</code>	TRUE or FALSE whether to add a zero line in for when values are above and below zero. Defaults to TRUE.
<code>x_trans</code>	A string specifying a transformation for the x scale. Defaults to "identity".
<code>x_pretty_n</code>	The desired number of intervals on the x axis, as calculated by the pretty algorithm. Defaults to 5. Not applicable where <code>isMobile</code> equals TRUE.
<code>y_rev</code>	TRUE or FALSE of whether bar order from top to bottom is reversed from default. Defaults to FALSE.
<code>y_labels</code>	Argument to adjust the format of the y scale labels.
<code>col_rev</code>	TRUE or FALSE of whether bar fill order from left to right is reversed from default. Defaults to FALSE.
<code>col_drop</code>	TRUE or FALSE of whether to drop unused levels from the legend. Defaults to FALSE.
<code>position</code>	Whether bars are positioned by "stack" or "dodge". Defaults to "stack".
<code>facet_scales</code>	Whether <code>facet_scales</code> should be "fixed" across facets, "free" in both directions, or free in just one direction (i.e. "free_x" or "free_y"). Defaults to "fixed".
<code>facet_nrow</code>	The number of rows of faceted plots. Defaults to NULL, which generally chooses 2 rows. Not applicable to where <code>isMobile</code> is TRUE.
<code>pal</code>	Character vector of hex codes. Defaults to NULL, which selects the Stats NZ palette.
<code>legend_ncol</code>	The number of columns in the legend.
<code>width</code>	Width of bars. Defaults to 0.75.
<code>title</code>	Title string. Defaults to [Title].
<code>subtitle</code>	Subtitle string. Defaults to [Subtitle].
<code>x_title</code>	X axis title string. Defaults to [X title].
<code>y_title</code>	Y axis title string. Defaults to [Y title].
<code>col_title</code>	Colour title string for the legend. Defaults to NULL.
<code>caption</code>	Caption title string. Defaults to NULL.
<code>legend_labels</code>	A vector of manual legend label values. Defaults to NULL, which results in automatic labels.

font_family	Font family to use. Defaults to "Helvetica".
font_size_title	Font size for the title text. Defaults to 11.
font_size_body	Font size for all text other than the title. Defaults to 10.
wrap_title	Number of characters to wrap the title to. Defaults to 70. Not applicable where isMobile equals TRUE.
wrap_subtitle	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where isMobile equals TRUE.
wrap_x_title	Number of characters to wrap the x title to. Defaults to 50. Not applicable where isMobile equals TRUE.
wrap_y_title	Number of characters to wrap the y title to. Defaults to 50. Not applicable where isMobile equals TRUE.
wrap_col_title	Number of characters to wrap the colour title to. Defaults to 25. Not applicable where isMobile equals TRUE.
wrap_caption	Number of characters to wrap the caption to. Defaults to 80. Not applicable where isMobile equals TRUE.
isMobile	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the mobileDetect function, then use isMobile = input\$isMobile.

Value

A ggplot object.

Examples

```
library(dplyr)

plot_data <- ggplot2::diamonds %>%
  mutate(cut = stringr::str_to_sentence(cut)) %>%
  group_by(cut, clarity, color) %>%
  summarise(average_price = mean(price)) %>%
  mutate(average_price_thousands = round(average_price / 1000, 1))

plot <- ggplot_hbar_col_facet(data = plot_data, x_var = average_price_thousands,
                             y_var = color, col_var = clarity, facet_var = cut,
                             title = "Average diamond price by colour, clarity and cut",
                             x_title = "Average price ($US thousands)",
                             y_title = "Colour")

plot

plotly::ggplotly(plot)
```

ggplot_hbar_facet *Horizontal bar ggplot that is faceted.*

Description

Horizontal bar ggplot that is faceted, but not coloured.

Usage

```
ggplot_hbar_facet(data, x_var, y_var, facet_var, tip_var = NULL,
  x_labels = waiver(), x_zero = TRUE, x_zero_line = TRUE,
  x_trans = "identity", x_pretty_n = 5, y_rev = FALSE,
  y_labels = waiver(), facet_scales = "fixed", facet_nrow = NULL,
  pal = NULL, width = 0.75, title = "[Title]", na_grey = FALSE,
  subtitle = NULL, x_title = "[X title]", y_title = "[Y title]",
  caption = NULL, font_family = "Helvetica", font_size_title = NULL,
  font_size_body = NULL, wrap_title = 70, wrap_subtitle = 80,
  wrap_x_title = 50, wrap_y_title = 50, wrap_caption = 80,
  isMobile = FALSE)
```

Arguments

data	A tibble or dataframe. Required input.
x_var	Unquoted numeric variable to be on the x axis. Required input.
y_var	Unquoted categorical variable to be on the y axis. Required input.
facet_var	Unquoted categorical variable to facet the data by. Required input.
tip_var	Unquoted variable to be used as a customised tooltip in combination with <code>plotly::ggplotly(plot)</code> . Defaults to NULL.
x_labels	Argument to adjust the format of the x scale labels.
x_zero	TRUE or FALSE whether the minimum of the x scale is zero. Defaults to TRUE.
x_zero_line	TRUE or FALSE whether to add a zero line in for when values are above and below zero. Defaults to TRUE.
x_trans	A string specifying a transformation for the x scale. Defaults to "identity".
x_pretty_n	The desired number of intervals on the x axis, as calculated by the pretty algorithm. Defaults to 5. Not applicable where <code>isMobile</code> equals TRUE.
y_rev	TRUE or FALSE of whether bar order from top to bottom is reversed from default. Defaults to FALSE.
y_labels	Argument to adjust the format of the y scale labels.
facet_scales	Whether <code>facet_scales</code> should be "fixed" across facets, "free" in both directions, or free in just one direction (i.e. "free_x" or "free_y"). Defaults to "fixed".
facet_nrow	The number of rows of faceted plots. Defaults to NULL, which generally chooses 2 rows. Not applicable to where <code>isMobile</code> is TRUE.

<code>pal</code>	Character vector of hex codes. Defaults to NULL, which selects the Stats NZ palette.
<code>width</code>	Width of bars. Defaults to 0.75.
<code>title</code>	Title string. Defaults to [Title].
<code>na_grey</code>	TRUE or FALSE of whether to provide wide grey bars for NA <code>y_var</code> values. Defaults to FALSE. Only applicable where <code>facet_scales = "fixed"</code> or <code>"free_y"</code> .
<code>subtitle</code>	Subtitle string. Defaults to [Subtitle].
<code>x_title</code>	X axis title string. Defaults to [X title].
<code>y_title</code>	Y axis title string. Defaults to [Y title].
<code>caption</code>	Caption title string. Defaults to NULL.
<code>font_family</code>	Font family to use. Defaults NULL.
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_x_title</code>	Number of characters to wrap the x title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_y_title</code>	Number of characters to wrap the y title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the <code>mobileDetect</code> function, then use <code>isMobile = input\$isMobile</code> .

Value

A ggplot object.

Examples

```
library(dplyr)

plot_data <- ggplot2::diamonds %>%
  mutate(cut = stringr::str_to_sentence(cut)) %>%
  group_by(cut, clarity) %>%
  summarise(average_price = mean(price)) %>%
  mutate(average_price_thousands = round(average_price / 1000, 1))

plot <- ggplot_hbar_facet(data = plot_data, x_var = average_price_thousands,
  y_var = cut, facet_var = clarity,
  title = "Average diamond price by cut and clarity",
  x_title = "Average price ($US thousands)",
```

```

        y_title = "Cut")

plot

plotly::ggplotly(plot)

```

ggplot_line

Line ggplot.

Description

Line ggplot that is not coloured and not faceted.

Usage

```

ggplot_line(data, x_var, y_var, tip_var = NULL, x_labels = waiver(),
  x_pretty_n = 6, y_zero = TRUE, y_zero_line = TRUE,
  y_trans = "identity", y_labels = waiver(), y_pretty_n = 5,
  points = TRUE, point_size = 1, lines = TRUE, size = 0.5,
  pal = NULL, title = "[Title]", subtitle = NULL,
  x_title = "[X title]", y_title = "[Y title]", caption = NULL,
  font_family = "Helvetica", font_size_title = NULL,
  font_size_body = NULL, wrap_title = 70, wrap_subtitle = 80,
  wrap_x_title = 50, wrap_y_title = 50, wrap_caption = 80,
  isMobile = FALSE)

```

Arguments

data	A tibble or dataframe. Required input.
x_var	Unquoted numeric or date variable to be on the x axis. Required input.
y_var	Unquoted numeric variable to be on the y axis. Required input.
tip_var	Unquoted variable to be used as a customised tooltip in combination with plotly::ggplotly(plot). Defaults to NULL.
x_labels	Argument to adjust the format of the x scale labels.
x_pretty_n	The desired number of intervals on the x axis, as calculated by the pretty algorithm. Defaults to 6. Not applicable where isMobile equals TRUE.
y_zero	TRUE or FALSE whether the minimum of the y scale is zero. Defaults to TRUE.
y_zero_line	TRUE or FALSE whether to add a zero line in for when values are above and below zero. Defaults to TRUE.
y_trans	A string specifying a transformation for the y axis scale, such as "log10" or "sqrt". Defaults to "identity".
y_labels	Argument to adjust the format of the y scale labels.
y_pretty_n	The desired number of intervals on the y axis, as calculated by the pretty algorithm. Defaults to 5.

points	TRUE or FALSE of whether to include points. Defaults to TRUE.
point_size	Size of points. Defaults to 1. Only applicable to where points equals TRUE.
lines	TRUE or FALSE of whether to include lines. Defaults to TRUE.
size	Size of lines. Defaults to 0.5. Only applicable to where lines equals TRUE.
pal	Character vector of hex codes. Defaults to NULL, which selects the Stats NZ palette.
title	Title string. Defaults to "[Title]".
subtitle	Subtitle string. Defaults to "[Subtitle]".
x_title	X axis title string. Defaults to "[X title]".
y_title	Y axis title string. Defaults to "[Y title]".
caption	Caption title string. Defaults to NULL.
font_family	Font family to use. Defaults to "Helvetica".
font_size_title	Font size for the title text. Defaults to 11.
font_size_body	Font size for all text other than the title. Defaults to 10.
wrap_title	Number of characters to wrap the title to. Defaults to 70. Not applicable where isMobile equals TRUE.
wrap_subtitle	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where isMobile equals TRUE.
wrap_x_title	Number of characters to wrap the x title to. Defaults to 50. Not applicable where isMobile equals TRUE.
wrap_y_title	Number of characters to wrap the y title to. Defaults to 50. Not applicable where isMobile equals TRUE.
wrap_caption	Number of characters to wrap the caption to. Defaults to 80. Not applicable where isMobile equals TRUE.
isMobile	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the mobileDetect function, then use isMobile = input\$isMobile.

Value

A ggplot object.

Examples

```
library(dplyr)

plot_data <- storms %>%
  group_by(year) %>%
  summarise(wind = round(mean(wind), 2))

plot <- ggplot_line(data = plot_data, x_var = year, y_var = wind,
  title = "Average wind speed of Atlantic storms, 1975-2015",
  x_title = "Year",
  y_title = "Average maximum sustained wind speed (knots)")
```

```
plot
plotly::ggplotly(plot)
```

ggplot_line_col	<i>Line ggplot that is coloured.</i>
-----------------	--------------------------------------

Description

Line ggplot that is coloured, but not faceted.

Usage

```
ggplot_line_col(data, x_var, y_var, col_var, tip_var = NULL,
  x_labels = waiver(), x_pretty_n = 6, y_zero = TRUE,
  y_zero_line = TRUE, y_trans = "identity", y_labels = waiver(),
  y_pretty_n = 5, col_drop = FALSE, points = TRUE, point_size = 1,
  lines = TRUE, size = 0.5, pal = NULL, rev_pal = FALSE,
  legend_ncol = 3, title = "[Title]", subtitle = NULL,
  x_title = "[X title]", y_title = "[Y title]", col_title = "",
  caption = NULL, legend_labels = NULL, font_family = "Helvetica",
  font_size_title = NULL, font_size_body = NULL, wrap_title = 70,
  wrap_subtitle = 80, wrap_x_title = 50, wrap_y_title = 50,
  wrap_col_title = 25, wrap_caption = 80, isMobile = FALSE)
```

Arguments

data	A tibble or dataframe. Required input.
x_var	Unquoted numeric or date variable to be on the x axis. Required input.
y_var	Unquoted numeric variable to be on the y axis. Required input.
col_var	Unquoted categorical variable for lines and points to be coloured by. Required input.
tip_var	Unquoted variable to be used as a customised tooltip in combination with plotly::ggplotly(plot). Defaults to NULL.
x_labels	Argument to adjust the format of the x scale labels.
x_pretty_n	The desired number of intervals on the x axis, as calculated by the pretty algorithm. Defaults to 6. Not applicable where isMobile equals TRUE.
y_zero	TRUE or FALSE whether the minimum of the y scale is zero. Defaults to TRUE.
y_zero_line	TRUE or FALSE whether to add a zero line in for when values are above and below zero. Defaults to TRUE.
y_trans	A string specifying a transformation for the y axis scale, such as "log10" or "sqrt". Defaults to "identity".
y_labels	Argument to adjust the format of the y scale labels.

<code>y_pretty_n</code>	The desired number of intervals on the y axis, as calculated by the pretty algorithm. Defaults to 5.
<code>col_drop</code>	TRUE or FALSE of whether to drop unused levels from the legend. Defaults to FALSE.
<code>points</code>	TRUE or FALSE of whether to include points. Defaults to TRUE.
<code>point_size</code>	Size of points. Defaults to 1. Only applicable to where points equals TRUE.
<code>lines</code>	TRUE or FALSE of whether to include lines. Defaults to TRUE.
<code>size</code>	Size of lines. Defaults to 0.5. Only applicable to where lines equals TRUE.
<code>pal</code>	Character vector of hex codes. Defaults to NULL, which selects the Stats NZ palette.
<code>rev_pal</code>	Reverses the palette. Defaults to FALSE.
<code>legend_ncol</code>	The number of columns in the legend.
<code>title</code>	Title string. Defaults to "[Title]".
<code>subtitle</code>	Subtitle string. Defaults to "[Subtitle]".
<code>x_title</code>	X axis title string. Defaults to "[X title]".
<code>y_title</code>	Y axis title string. Defaults to "[Y title]".
<code>col_title</code>	Colour title string for the legend. Defaults to NULL.
<code>caption</code>	Caption title string. Defaults to NULL.
<code>legend_labels</code>	A vector of manual legend label values. Defaults to NULL, which results in automatic labels.
<code>font_family</code>	Font family to use. Defaults to "Helvetica".
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where isMobile equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where isMobile equals TRUE.
<code>wrap_x_title</code>	Number of characters to wrap the x title to. Defaults to 50. Not applicable where isMobile equals TRUE.
<code>wrap_y_title</code>	Number of characters to wrap the y title to. Defaults to 50. Not applicable where isMobile equals TRUE.
<code>wrap_col_title</code>	Number of characters to wrap the colour title to. Defaults to 25. Not applicable where isMobile equals TRUE.
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where isMobile equals TRUE.
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the mobileDetect function, then use isMobile = input\$isMobile.

Value

A ggplot object.

Examples

```
library(dplyr)

plot_data <- storms %>%
  mutate(status = stringr::str_to_sentence(status)) %>%
  group_by(year, status) %>%
  summarise(wind = round(mean(wind), 2))

plot <- ggplot_line_col(data = plot_data, x_var = year, y_var = wind, col_var = status)

plot

plotly::ggplotly(plot)
```

`ggplot_line_col_facet` *Line ggplot that is coloured and faceted.*

Description

Line ggplot that is coloured and faceted.

Usage

```
ggplot_line_col_facet(data, x_var, y_var, col_var, facet_var,
  tip_var = NULL, x_labels = waiver(), x_pretty_n = 5,
  y_zero = TRUE, y_zero_line = TRUE, y_trans = "identity",
  y_labels = waiver(), y_pretty_n = 5, col_drop = FALSE,
  facet_scales = "fixed", facet_nrow = NULL, points = TRUE,
  point_size = 1, lines = TRUE, size = 0.5, pal = NULL,
  rev_pal = FALSE, legend_ncol = 3, title = "[Title]",
  subtitle = NULL, x_title = "[X title]", y_title = "[Y title]",
  col_title = "", caption = NULL, legend_labels = NULL,
  font_family = "Helvetica", font_size_title = NULL,
  font_size_body = NULL, wrap_title = 70, wrap_subtitle = 80,
  wrap_x_title = 50, wrap_y_title = 50, wrap_col_title = 25,
  wrap_caption = 80, isMobile = FALSE)
```

Arguments

<code>data</code>	A tibble or dataframe. Required input.
<code>x_var</code>	Unquoted numeric or date variable to be on the x axis. Required input.
<code>y_var</code>	Unquoted numeric variable to be on the y axis. Required input.
<code>col_var</code>	Unquoted categorical variable for lines and points to be coloured by. Required input.
<code>facet_var</code>	Unquoted categorical variable to facet the data by. Required input.

tip_var	Unquoted variable to be used as a customised tooltip in combination with <code>plotly::ggplotly(plot)</code> . Defaults to NULL.
x_labels	Argument to adjust the format of the x scale labels.
x_pretty_n	The desired number of intervals on the x axis, as calculated by the pretty algorithm. Defaults to 5. Not applicable where <code>isMobile</code> equals TRUE.
y_zero	TRUE or FALSE whether the minimum of the y scale is zero. Defaults to TRUE.
y_zero_line	TRUE or FALSE whether to add a zero line in for when values are above and below zero. Defaults to TRUE.
y_trans	A string specifying a transformation for the y axis scale, such as "log10" or "sqrt". Defaults to "identity".
y_labels	Argument to adjust the format of the y scale labels.
y_pretty_n	The desired number of intervals on the y axis, as calculated by the pretty algorithm. Defaults to 5.
col_drop	TRUE or FALSE of whether to drop unused levels from the legend. Defaults to FALSE.
facet_scales	Whether <code>facet_scales</code> should be "fixed" across facets, "free" in both directions, or free in just one direction (i.e. "free_x" or "free_y"). Defaults to "fixed".
facet_nrow	The number of rows of faceted plots. Defaults to NULL, which generally chooses 2 rows. Not applicable to where <code>isMobile</code> is TRUE.
points	TRUE or FALSE of whether to include points. Defaults to TRUE.
point_size	Size of points. Defaults to 1. Only applicable to where <code>points</code> equals TRUE.
lines	TRUE or FALSE of whether to include lines. Defaults to TRUE.
size	Size of lines. Defaults to 0.5. Only applicable to where <code>lines</code> equals TRUE.
pal	Character vector of hex codes. Defaults to NULL, which selects the Stats NZ palette.
rev_pal	Reverses the palette. Defaults to FALSE.
legend_ncol	The number of columns in the legend.
title	Title string. Defaults to "[Title]".
subtitle	Subtitle string. Defaults to "[Subtitle]".
x_title	X axis title string. Defaults to "[X title]".
y_title	Y axis title string. Defaults to "[Y title]".
col_title	Colour title string for the legend. Defaults to NULL.
caption	Caption title string. Defaults to NULL.
legend_labels	A vector of manual legend label values. Defaults to NULL, which results in automatic labels.
font_family	Font family to use. Defaults to "Helvetica".
font_size_title	Font size for the title text. Defaults to 11.
font_size_body	Font size for all text other than the title. Defaults to 10.

wrap_title	Number of characters to wrap the title to. Defaults to 70. Not applicable where isMobile equals TRUE.
wrap_subtitle	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where isMobile equals TRUE.
wrap_x_title	Number of characters to wrap the x title to. Defaults to 50. Not applicable where isMobile equals TRUE.
wrap_y_title	Number of characters to wrap the y title to. Defaults to 50. Not applicable where isMobile equals TRUE.
wrap_col_title	Number of characters to wrap the colour title to. Defaults to 25. Not applicable where isMobile equals TRUE.
wrap_caption	Number of characters to wrap the caption to. Defaults to 80. Not applicable where isMobile equals TRUE.
isMobile	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the mobileDetect function, then use isMobile = input\$isMobile.

Value

A ggplot object.

Examples

```
library(dplyr)

plot_data <- storms %>%
  mutate(status = stringr::str_to_sentence(status)) %>%
  group_by(year, status) %>%
  summarise(wind = round(mean(wind), 2))

plot <- ggplot_line_col_facet(data = plot_data, x_var = year, y_var = wind, col_var = status,
                             facet_var = status)

plot

plotly::ggplotly(plot)
```

ggplot_line_facet	<i>Line ggplot that is faceted.</i>
-------------------	-------------------------------------

Description

Line ggplot that is faceted, but not coloured.

Usage

```
ggplot_line_facet(data, x_var, y_var, facet_var, tip_var = NULL,
  x_labels = waiver(), x_pretty_n = 5, y_zero = TRUE,
  y_zero_line = TRUE, y_trans = "identity", y_labels = waiver(),
  y_pretty_n = 5, facet_scales = "fixed", facet_nrow = NULL,
  points = TRUE, point_size = 1, lines = TRUE, size = 0.5,
  pal = NULL, title = "[Title]", subtitle = NULL,
  x_title = "[X title]", y_title = "[Y title]", caption = NULL,
  font_family = "Helvetica", font_size_title = NULL,
  font_size_body = NULL, wrap_title = 70, wrap_subtitle = 80,
  wrap_x_title = 50, wrap_y_title = 50, wrap_caption = 80,
  isMobile = FALSE)
```

Arguments

<code>data</code>	A tibble or dataframe. Required input.
<code>x_var</code>	Unquoted numeric or date variable to be on the x axis. Required input.
<code>y_var</code>	Unquoted numeric variable to be on the y axis. Required input.
<code>facet_var</code>	Unquoted categorical variable to facet the data by. Required input.
<code>tip_var</code>	Unquoted variable to be used as a customised tooltip in combination with <code>plotly::ggplotly(plot)</code> . Defaults to <code>NULL</code> .
<code>x_labels</code>	Argument to adjust the format of the x scale labels.
<code>x_pretty_n</code>	The desired number of intervals on the x axis, as calculated by the pretty algorithm. Defaults to 5. Not applicable where <code>isMobile</code> equals <code>TRUE</code> .
<code>y_zero</code>	<code>TRUE</code> or <code>FALSE</code> whether the minimum of the y scale is zero. Defaults to <code>TRUE</code> .
<code>y_zero_line</code>	<code>TRUE</code> or <code>FALSE</code> whether to add a zero line in for when values are above and below zero. Defaults to <code>TRUE</code> .
<code>y_trans</code>	A string specifying a transformation for the y axis scale, such as <code>"log10"</code> or <code>"sqrt"</code> . Defaults to <code>"identity"</code> .
<code>y_labels</code>	Argument to adjust the format of the y scale labels.
<code>y_pretty_n</code>	The desired number of intervals on the y axis, as calculated by the pretty algorithm. Defaults to 5.
<code>facet_scales</code>	Whether <code>facet_scales</code> should be <code>"fixed"</code> across facets, <code>"free"</code> in both directions, or free in just one direction (i.e. <code>"free_x"</code> or <code>"free_y"</code>). Defaults to <code>"fixed"</code> .
<code>facet_nrow</code>	The number of rows of faceted plots. Defaults to <code>NULL</code> , which generally chooses 2 rows. Not applicable to where <code>isMobile</code> is <code>TRUE</code> .
<code>points</code>	<code>TRUE</code> or <code>FALSE</code> of whether to include points. Defaults to <code>TRUE</code> .
<code>point_size</code>	Size of points. Defaults to 1. Only applicable to where <code>points</code> equals <code>TRUE</code> .
<code>lines</code>	<code>TRUE</code> or <code>FALSE</code> of whether to include lines. Defaults to <code>TRUE</code> .
<code>size</code>	Size of lines. Defaults to 0.5. Only applicable to where <code>lines</code> equals <code>TRUE</code> .
<code>pal</code>	Character vector of hex codes. Defaults to <code>NULL</code> , which selects the Stats NZ palette.

<code>title</code>	Title string. Defaults to "[Title]".
<code>subtitle</code>	Subtitle string. Defaults to "[Subtitle]".
<code>x_title</code>	X axis title string. Defaults to "[X title]".
<code>y_title</code>	Y axis title string. Defaults to "[Y title]".
<code>caption</code>	Caption title string. Defaults to NULL.
<code>font_family</code>	Font family to use. Defaults to "Helvetica".
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_x_title</code>	Number of characters to wrap the x title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_y_title</code>	Number of characters to wrap the y title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the <code>mobileDetect</code> function, then use <code>isMobile = input\$isMobile</code> .

Value

A ggplot object.

Examples

```
library(dplyr)

plot_data <- storms %>%
  mutate(status = stringr::str_to_sentence(status)) %>%
  group_by(year, status) %>%
  summarise(wind = round(mean(wind), 2))

plot <- ggplot_line_facet(data = plot_data, x_var = year, y_var = wind, facet_var = status)

plot

plotly::ggplotly(plot)
```

ggplot_scatter	<i>Scatter ggplot.</i>
----------------	------------------------

Description

Scatter ggplot that is not coloured and not faceted.

Usage

```
ggplot_scatter(data, x_var, y_var, tip_var = NULL, size = 1,
  pal = NULL, x_zero = TRUE, x_zero_line = TRUE,
  x_trans = "identity", x_labels = waiver(), x_pretty_n = 6,
  y_zero = TRUE, y_zero_line = TRUE, y_trans = "identity",
  y_labels = waiver(), y_pretty_n = 5, title = "[Title]",
  subtitle = NULL, x_title = "[X title]", y_title = "[Y title]",
  caption = NULL, font_family = "Helvetica", font_size_title = NULL,
  font_size_body = NULL, wrap_title = 70, wrap_subtitle = 80,
  wrap_x_title = 50, wrap_y_title = 50, wrap_caption = 80,
  isMobile = FALSE)
```

Arguments

<code>data</code>	An ungrouped summarised tibble or dataframe. Required input.
<code>x_var</code>	Unquoted numeric variable to be on the x axis. Required input.
<code>y_var</code>	Unquoted numeric variable to be on the y axis. Required input.
<code>tip_var</code>	Unquoted variable to be used as a customised tooltip in combination with <code>plotly::ggplotly(plot)</code> . Defaults to <code>NULL</code> .
<code>size</code>	Size of points. Defaults to 1.
<code>pal</code>	Character vector of hex codes. Defaults to <code>NULL</code> , which selects the Stats NZ palette.
<code>x_zero</code>	<code>TRUE</code> or <code>FALSE</code> whether the minimum of the x scale is zero. Defaults to <code>TRUE</code> .
<code>x_zero_line</code>	<code>TRUE</code> or <code>FALSE</code> whether to add a zero line in for when values are above and below zero. Defaults to <code>TRUE</code> .
<code>x_trans</code>	A string specifying a transformation for the x scale. Defaults to "identity".
<code>x_labels</code>	Argument to adjust the format of the x scale labels.
<code>x_pretty_n</code>	The desired number of intervals on the x axis, as calculated by the pretty algorithm. Defaults to 6. Not applicable where <code>isMobile</code> equals <code>TRUE</code> .
<code>y_zero</code>	<code>TRUE</code> or <code>FALSE</code> whether the minimum of the y scale is zero. Defaults to <code>TRUE</code> .
<code>y_zero_line</code>	<code>TRUE</code> or <code>FALSE</code> whether to add a zero line in for when values are above and below zero. Defaults to <code>TRUE</code> .
<code>y_trans</code>	A string specifying a transformation for the y scale. Defaults to "identity".
<code>y_labels</code>	Argument to adjust the format of the y scale labels.

<code>y_pretty_n</code>	The desired number of intervals on the y axis, as calculated by the pretty algorithm. Defaults to 5.
<code>title</code>	Title string. Defaults to "[Title]".
<code>subtitle</code>	Subtitle string. Defaults to "[Subtitle]".
<code>x_title</code>	X axis title string. Defaults to "[X title]".
<code>y_title</code>	Y axis title string. Defaults to "[Y title]".
<code>caption</code>	Caption title string. Defaults to NULL.
<code>font_family</code>	Font family to use. Defaults to "Helvetica".
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_x_title</code>	Number of characters to wrap the x title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_y_title</code>	Number of characters to wrap the y title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the <code>mobileDetect</code> function, then use <code>isMobile = input\$isMobile</code> .

Value

A ggplot object.

Examples

```
library(dplyr)

plot_data <- slice_sample(ggplot2::diamonds, prop = 0.05)

plot <- ggplot_scatter(data = plot_data, x_var = carat, y_var = price,
  title = "Diamond price by carat",
  x_title = "Carat",
  y_title = "Price ($US thousands)")

plot

plotly::ggplotly(plot)
```

ggplot_scatter_col *Scatter ggplot that is coloured.*

Description

Scatter ggplot that is coloured, but not faceted.

Usage

```
ggplot_scatter_col(data, x_var, y_var, col_var, tip_var = NULL,
  col_method = NULL, col_cuts = NULL, col_drop = FALSE,
  col_na_remove = FALSE, size = 1, pal = NULL, pal_rev = FALSE,
  x_zero = TRUE, x_zero_line = TRUE, x_trans = "identity",
  x_labels = waiver(), x_pretty_n = 6, y_zero = TRUE,
  y_zero_line = TRUE, y_trans = "identity", y_labels = waiver(),
  y_pretty_n = 5, legend_ncol = 3, legend_digits = 1,
  title = "[Title]", subtitle = NULL, x_title = "[X title]",
  y_title = "[Y title]", col_title = "", caption = NULL,
  legend_labels = NULL, font_family = "Helvetica",
  font_size_title = NULL, font_size_body = NULL, wrap_title = 70,
  wrap_subtitle = 80, wrap_x_title = 50, wrap_y_title = 50,
  wrap_col_title = 25, wrap_caption = 80, isMobile = FALSE)
```

Arguments

<code>data</code>	An ungrouped summarised tibble or dataframe. Required input.
<code>x_var</code>	Unquoted numeric variable to be on the x axis. Required input.
<code>y_var</code>	Unquoted numeric variable to be on the y axis. Required input.
<code>col_var</code>	Unquoted variable for points to be coloured by. Required input.
<code>tip_var</code>	Unquoted variable to be used as a customised tooltip in combination with <code>plotly::ggplotly(plot)</code> . Defaults to <code>NULL</code> .
<code>col_method</code>	The method of colouring features, either "bin", "quantile" or "category." If numeric, defaults to "quantile".
<code>col_cuts</code>	A vector of cuts to colour a numeric variable. If "bin" is selected, the first number in the vector should be either <code>-Inf</code> or <code>0</code> , and the final number <code>Inf</code> . If "quantile" is selected, the first number in the vector should be <code>0</code> and the final number should be <code>1</code> . Defaults to quartiles.
<code>col_drop</code>	<code>TRUE</code> or <code>FALSE</code> of whether to drop unused levels from the legend. Defaults to <code>FALSE</code> .
<code>col_na_remove</code>	<code>TRUE</code> or <code>FALSE</code> of whether to remove NAs of the colour variable. Defaults to <code>FALSE</code> .
<code>size</code>	Size of points. Defaults to <code>1</code> .
<code>pal</code>	Character vector of hex codes. Defaults to <code>NULL</code> , which selects the Stats NZ palette or <code>viridis</code> .

<code>pal_rev</code>	Reverses the palette. Defaults to FALSE.
<code>x_zero</code>	TRUE or FALSE whether the minimum of the x scale is zero. Defaults to TRUE.
<code>x_zero_line</code>	TRUE or FALSE whether to add a zero line in for when values are above and below zero. Defaults to TRUE.
<code>x_trans</code>	A string specifying a transformation for the x scale. Defaults to "identity".
<code>x_labels</code>	Argument to adjust the format of the x scale labels.
<code>x_pretty_n</code>	The desired number of intervals on the x axis, as calculated by the pretty algorithm. Defaults to 6. Not applicable where <code>isMobile</code> equals TRUE.
<code>y_zero</code>	TRUE or FALSE whether the minimum of the y scale is zero. Defaults to TRUE.
<code>y_zero_line</code>	TRUE or FALSE whether to add a zero line in for when values are above and below zero. Defaults to TRUE.
<code>y_trans</code>	A string specifying a transformation for the y scale. Defaults to "identity".
<code>y_labels</code>	Argument to adjust the format of the y scale labels.
<code>y_pretty_n</code>	The desired number of intervals on the y axis, as calculated by the pretty algorithm. Defaults to 5.
<code>legend_ncol</code>	The number of columns in the legend.
<code>legend_digits</code>	Select the appropriate number of decimal places for numeric variable auto legend labels. Defaults to 1.
<code>title</code>	Title string. Defaults to "[Title]".
<code>subtitle</code>	Subtitle string. Defaults to "[Subtitle]".
<code>x_title</code>	X axis title string. Defaults to "[X title]".
<code>y_title</code>	Y axis title string. Defaults to "[Y title]".
<code>col_title</code>	Colour title string for the legend. Defaults to NULL.
<code>caption</code>	Caption title string. Defaults to NULL.
<code>legend_labels</code>	A vector of manual legend label values. Defaults to NULL, which results in automatic labels.
<code>font_family</code>	Font family to use. Defaults to "Helvetica".
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_x_title</code>	Number of characters to wrap the x title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_y_title</code>	Number of characters to wrap the y title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_col_title</code>	Number of characters to wrap the colour title to. Defaults to 25. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the <code>mobileDetect</code> function, then use <code>isMobile = input\$isMobile</code> .

Value

A ggplot object.

Examples

```
library(dplyr)

plot_data <- slice_sample(ggplot2::diamonds, prop = 0.05)

plot <- ggplot_scatter_col(data = plot_data, x_var = carat, y_var = price, col_var = color)

plot

plotly::ggplotly(plot)
```

```
ggplot_scatter_col_facet
```

Scatter ggplot that is coloured and faceted.

Description

Scatter ggplot that is coloured and faceted.

Usage

```
ggplot_scatter_col_facet(data, x_var, y_var, col_var, facet_var,
  tip_var = NULL, col_method = NULL, col_cuts = NULL,
  col_na_remove = FALSE, quantile_by_facet = TRUE, size = 1,
  pal = NULL, pal_rev = FALSE, x_zero = TRUE, x_zero_line = TRUE,
  x_trans = "identity", x_labels = waiver(), x_pretty_n = 5,
  y_zero = TRUE, y_zero_line = TRUE, y_trans = "identity",
  y_labels = waiver(), y_pretty_n = 5, col_drop = FALSE,
  facet_scales = "fixed", facet_nrow = NULL, legend_ncol = 3,
  legend_digits = 1, title = "[Title]", subtitle = NULL,
  x_title = "[X title]", y_title = "[Y title]", col_title = "",
  caption = NULL, legend_labels = NULL, font_family = "Helvetica",
  font_size_title = NULL, font_size_body = NULL, wrap_title = 70,
  wrap_subtitle = 80, wrap_x_title = 50, wrap_y_title = 50,
  wrap_col_title = 25, wrap_caption = 80, isMobile = FALSE)
```

Arguments

<code>data</code>	An ungrouped summarised tibble or dataframe. Required input.
<code>x_var</code>	Unquoted numeric variable to be on the x axis. Required input.
<code>y_var</code>	Unquoted numeric variable to be on the y axis. Required input.
<code>col_var</code>	Unquoted variable for points to be coloured by. Required input.

<code>facet_var</code>	Unquoted categorical variable to facet the data by. Required input.
<code>tip_var</code>	Unquoted variable to be used as a customised tooltip in combination with <code>plotly::ggplotly(plot)</code> . Defaults to NULL.
<code>col_method</code>	The method of colouring features, either "bin", "quantile" or "category." If numeric, defaults to "quantile".
<code>col_cuts</code>	A vector of cuts to colour a numeric variable. If "bin" is selected, the first number in the vector should be either -Inf or 0, and the final number Inf. If "quantile" is selected, the first number in the vector should be 0 and the final number should be 1. Defaults to quartiles.
<code>col_na_remove</code>	TRUE or FALSE of whether to remove NAs of the colour variable. Defaults to FALSE.
<code>quantile_by_facet</code>	TRUE or FALSE whether quantiles should be calculated for each group of the facet variable. Defaults to TRUE.
<code>size</code>	Size of points. Defaults to 1.
<code>pal</code>	Character vector of hex codes. Defaults to NULL, which selects the Stats NZ palette or viridis.
<code>pal_rev</code>	Reverses the palette. Defaults to FALSE.
<code>x_zero</code>	TRUE or FALSE whether the minimum of the x scale is zero. Defaults to TRUE.
<code>x_zero_line</code>	TRUE or FALSE whether to add a zero line in for when values are above and below zero. Defaults to TRUE.
<code>x_trans</code>	A string specifying a transformation for the x scale. Defaults to "identity".
<code>x_labels</code>	Argument to adjust the format of the x scale labels.
<code>x_pretty_n</code>	The desired number of intervals on the x axis, as calculated by the pretty algorithm. Defaults to 5. Not applicable where <code>isMobile</code> equals TRUE.
<code>y_zero</code>	TRUE or FALSE whether the minimum of the y scale is zero. Defaults to TRUE.
<code>y_zero_line</code>	TRUE or FALSE whether to add a zero line in for when values are above and below zero. Defaults to TRUE.
<code>y_trans</code>	A string specifying a transformation for the y scale. Defaults to "identity".
<code>y_labels</code>	Argument to adjust the format of the y scale labels.
<code>y_pretty_n</code>	The desired number of intervals on the y axis, as calculated by the pretty algorithm. Defaults to 5.
<code>col_drop</code>	TRUE or FALSE of whether to drop unused levels from the legend. Defaults to FALSE.
<code>facet_scales</code>	Whether <code>facet_scales</code> should be "fixed" across facets, "free" in both directions, or free in just one direction (i.e. "free_x" or "free_y"). Defaults to "fixed".
<code>facet_nrow</code>	The number of rows of faceted plots. Defaults to NULL, which generally chooses 2 rows. Not applicable to where <code>isMobile</code> is TRUE.
<code>legend_ncol</code>	The number of columns in the legend.
<code>legend_digits</code>	Select the appropriate number of decimal places for numeric variable auto legend labels. Defaults to 1.

<code>title</code>	Title string. Defaults to "[Title]".
<code>subtitle</code>	Subtitle string. Defaults to "[Subtitle]".
<code>x_title</code>	X axis title string. Defaults to "[X title]".
<code>y_title</code>	Y axis title string. Defaults to "[Y title]".
<code>col_title</code>	Colour title string for the legend. Defaults to NULL.
<code>caption</code>	Caption title string. Defaults to NULL.
<code>legend_labels</code>	A vector of manual legend label values. Defaults to NULL, which results in automatic labels.
<code>font_family</code>	Font family to use. Defaults to "Helvetica".
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_x_title</code>	Number of characters to wrap the x title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_y_title</code>	Number of characters to wrap the y title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_col_title</code>	Number of characters to wrap the colour title to. Defaults to 25. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the <code>mobileDetect</code> function, then use <code>isMobile = input\$isMobile</code> .

Value

A ggplot object.

Examples

```
library(dplyr)

plot_data <- ggplot2::diamonds %>%
  sample_frac(0.05) %>%
  mutate(cut = stringr::str_to_sentence(cut))

plot <- ggplot_scatter_col_facet(data = plot_data, x_var = carat, y_var = price, col_var = color,
                               facet_var = cut)

plot

plotly::ggplotly(plot)
```

ggplot_scatter_facet *Scatter ggplot that is faceted.*

Description

Scatter ggplot that is faceted, but not coloured.

Usage

```
ggplot_scatter_facet(data, x_var, y_var, facet_var, tip_var = NULL,
  size = 1, pal = NULL, x_zero = TRUE, x_zero_line = TRUE,
  x_trans = "identity", x_labels = waiver(), x_pretty_n = 5,
  y_zero = TRUE, y_zero_line = TRUE, y_trans = "identity",
  y_labels = waiver(), y_pretty_n = 5, facet_scales = "fixed",
  facet_nrow = NULL, title = "[Title]", subtitle = NULL,
  x_title = "[X title]", y_title = "[Y title]", caption = NULL,
  font_family = "Helvetica", font_size_title = NULL,
  font_size_body = NULL, wrap_title = 70, wrap_subtitle = 80,
  wrap_x_title = 50, wrap_y_title = 50, wrap_caption = 80,
  isMobile = FALSE)
```

Arguments

data	An ungrouped summarised tibble or dataframe. Required input.
x_var	Unquoted numeric variable to be on the x axis. Required input.
y_var	Unquoted numeric variable to be on the y axis. Required input.
facet_var	Unquoted categorical variable to facet the data by. Required input.
tip_var	Unquoted variable to be used as a customised tooltip in combination with plotly::ggplotly(plot). Defaults to NULL.
size	Size of points. Defaults to 1.
pal	Character vector of hex codes. Defaults to NULL, which selects the Stats NZ palette.
x_zero	TRUE or FALSE whether the minimum of the x scale is zero. Defaults to TRUE.
x_zero_line	TRUE or FALSE whether to add a zero line in for when values are above and below zero. Defaults to TRUE.
x_trans	A string specifying a transformation for the x scale. Defaults to "identity".
x_labels	Argument to adjust the format of the x scale labels.
x_pretty_n	The desired number of intervals on the x axis, as calculated by the pretty algorithm. Defaults to 5. Not applicable where isMobile equals TRUE.
y_zero	TRUE or FALSE whether the minimum of the y scale is zero. Defaults to TRUE.
y_zero_line	TRUE or FALSE whether to add a zero line in for when values are above and below zero. Defaults to TRUE.
y_trans	A string specifying a transformation for the y scale. Defaults to "identity".

<code>y_labels</code>	Argument to adjust the format of the y scale labels.
<code>y_pretty_n</code>	The desired number of intervals on the y axis, as calculated by the pretty algorithm. Defaults to 5.
<code>facet_scales</code>	Whether <code>facet_scales</code> should be "fixed" across facets, "free" in both directions, or free in just one direction (i.e. "free_x" or "free_y"). Defaults to "fixed".
<code>facet_nrow</code>	The number of rows of faceted plots. Defaults to NULL, which generally chooses 2 rows. Not applicable to where <code>isMobile</code> is TRUE.
<code>title</code>	Title string. Defaults to "[Title]".
<code>subtitle</code>	Subtitle string. Defaults to "[Subtitle]".
<code>x_title</code>	X axis title string. Defaults to "[X title]".
<code>y_title</code>	Y axis title string. Defaults to "[Y title]".
<code>caption</code>	Caption title string. Defaults to NULL.
<code>font_family</code>	Font family to use. Defaults to "Helvetica".
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_x_title</code>	Number of characters to wrap the x title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_y_title</code>	Number of characters to wrap the y title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the <code>mobileDetect</code> function, then use <code>isMobile = input\$isMobile</code> .

Value

A ggplot object.

Examples

```
library(dplyr)

plot_data <- slice_sample(ggplot2::diamonds, prop = 0.05)

plot <- ggplot_scatter_facet(data = plot_data, x_var = carat, y_var = price, facet_var = color)

plot

plotly::ggplotly(plot)
```

ggplot_sf

*Map of simple features in ggplot.***Description**

Map of simple features in ggplot that is not coloured and not faceted.

Usage

```
ggplot_sf(data, size = 0.5, alpha = 0.1, pal = NULL,
  coastline = NULL, title = "[Title]", subtitle = NULL,
  caption = NULL, font_family = "Helvetica", font_size_title = NULL,
  font_size_body = NULL, wrap_title = 70, wrap_subtitle = 80,
  wrap_caption = 80, isMobile = FALSE)
```

Arguments

<code>data</code>	A sf object with defined coordinate reference system. Required input.
<code>size</code>	Size of features (or shape outlines if polygon). Defaults to 0.5.
<code>alpha</code>	The alpha of the fill. Defaults to 0.1. Only applicable to polygons.
<code>pal</code>	Character vector of hex codes. Defaults to NULL, which selects the Stats NZ palette.
<code>coastline</code>	Add a sf object as a coastline (or administrative boundaries). Defaults to NULL. Use <code>nz</code> (or <code>nz_region</code>) to add a new zealand coastline. Or add a custom sf object.
<code>title</code>	Title string. Defaults to "[Title]".
<code>subtitle</code>	Subtitle string. Defaults to "[Subtitle]".
<code>caption</code>	Caption title string. Defaults to NULL.
<code>font_family</code>	Font family to use. Defaults to "Helvetica".
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the <code>mobileDetect</code> function, then use <code>isMobile = input\$isMobile</code> .

Value

A ggplot object.

Examples

```
map_data <- example_sf_nz_river_wq %>%
  dplyr::filter(period == "1998-2017", indicator == "Nitrate-nitrogen")

ggplot_sf(data = map_data, coastline = nz)
```

ggplot_sf_col

*Map of simple features in ggplot that is coloured.***Description**

Map of simple features in ggplot that is coloured, but not faceted.

Usage

```
ggplot_sf_col(data, col_var, col_method = NULL, col_cuts = NULL,
  col_drop = FALSE, col_na_remove = FALSE, pal = NULL,
  pal_rev = FALSE, size = 0.5, alpha = 0.9, coastline = NULL,
  coastline_behind = TRUE, coastline_pal = "#7f7f7f",
  legend_ncol = 3, legend_digits = 1, title = "[Title]",
  subtitle = NULL, col_title = "", caption = NULL,
  legend_labels = NULL, font_family = "Helvetica",
  font_size_title = NULL, font_size_body = NULL, wrap_title = 70,
  wrap_subtitle = 80, wrap_col_title = 25, wrap_caption = 80,
  isMobile = FALSE)
```

Arguments

data	A sf object with defined coordinate reference system. Required input.
col_var	Unquoted variable for points to be coloured by. Required input.
col_method	The method of colouring features, either "bin", "quantile" or "category." NULL results in "category", if categorical or "quantile" if numeric col_var. Note all numeric variables are cut to be inclusive of the min in the range, and exclusive of the max in the range (except for the final bucket which includes the highest value).
col_cuts	A vector of cuts to colour a numeric variable. If "bin" is selected, the first number in the vector should be either -Inf or 0, and the final number Inf. If "quantile" is selected, the first number in the vector should be 0 and the final number should be 1. Defaults to quartiles.
col_drop	TRUE or FALSE of whether to drop unused levels from the legend. Defaults to FALSE.
col_na_remove	TRUE or FALSE of whether to remove NAs of the colour variable. Defaults to FALSE.
pal	Character vector of hex codes. Defaults to NULL, which selects the colorbrewer Set1 or viridis.

<code>pal_rev</code>	Reverses the palette. Defaults to FALSE.
<code>size</code>	Size of features (or shape outlines if polygon). Defaults to 0.5.
<code>alpha</code>	The opacity of polygons. Defaults to 0.9.
<code>coastline</code>	Add a sf object as a coastline (or administrative boundaries). Defaults to NULL. Use nz (or nz_region) to add a new zealand coastline. Or add a custom sf object.
<code>coastline_behind</code>	TRUE or FALSE as to whether the coastline is to be behind the sf object defined in the data argument. Defaults to FALSE.
<code>coastline_pal</code>	Colour of the coastline. Defaults to "#7F7F7F".
<code>legend_ncol</code>	The number of columns in the legend.
<code>legend_digits</code>	Select the appropriate number of decimal places for numeric variable auto legend labels. Defaults to 1.
<code>title</code>	Title string. Defaults to "[Title]".
<code>subtitle</code>	Subtitle string. Defaults to "[Subtitle]".
<code>col_title</code>	Colour title string for the legend. Defaults to NULL.
<code>caption</code>	Caption title string. Defaults to NULL.
<code>legend_labels</code>	A vector of manual legend label values. Defaults to NULL, which results in automatic labels.
<code>font_family</code>	Font family to use. Defaults to "Helvetica".
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where isMobile equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where isMobile equals TRUE.
<code>wrap_col_title</code>	Number of characters to wrap the colour title to. Defaults to 25. Not applicable where isMobile equals TRUE.
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where isMobile equals TRUE.
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the mobileDetect function, then use isMobile = input\$isMobile.

Value

A ggplot object.

Examples

```
ggplot_sf_col(data = example_sf_nz_livestock, col_var = dairydens, coastline = nz,
  col_method = "bin", col_cuts = c(0, 10, 50, 100, 150, 200, Inf), legend_digits = 0,
  title = "Dairy density in count per km\u00b2, 2017")
```

```

ggplot_sf_col(data = example_sf_nz_livestock, col_var = dairydens, coastline = nz,
  col_method = "quantile", col_cuts = c(0, 0.25, 0.5, 0.75, 0.95, 1),
  title = "Dairy density in count per km\u00b2, 2017")

map_data <- example_sf_nz_river_wq %>%
  dplyr::filter(period == "1998-2017", indicator == "Nitrate-nitrogen")

pal <- c("#4575B4", "#D3D3D3", "#D73027")

ggplot_sf_col(data = map_data, col_var = trend_category, coastline = nz,
  pal = pal, col_method = "category",
  title = "Monitored river nitrate-nitrogen trends, 2008-17")

```

ggplot_sf_col_facet *Map of simple features in ggplot that is coloured and faceted.*

Description

Map of simple features in ggplot that is coloured and faceted.

Usage

```

ggplot_sf_col_facet(data, col_var, facet_var, col_method = NULL,
  col_cuts = NULL, col_quantile_by_facet = TRUE, col_drop = FALSE,
  col_na_remove = FALSE, pal = NULL, pal_rev = FALSE, size = 0.5,
  alpha = 0.9, facet_nrow = NULL, legend_ncol = 3,
  legend_digits = 1, coastline = NULL, coastline_behind = TRUE,
  coastline_pal = "#7f7f7f", title = "[Title]", subtitle = NULL,
  col_title = "", caption = NULL, legend_labels = NULL,
  font_family = "Helvetica", font_size_title = NULL,
  font_size_body = NULL, wrap_title = 70, wrap_subtitle = 80,
  wrap_col_title = 25, wrap_caption = 80, isMobile = FALSE)

```

Arguments

data	A sf object with defined coordinate reference system. Required input.
col_var	Unquoted variable for points to be coloured by. Required input.
facet_var	Unquoted categorical variable to facet the data by. Required input.
col_method	The method of colouring features, either "bin", "quantile" or "category." NULL results in "category", if categorical or "quantile" if numeric col_var. Note all numeric variables are cut to be inclusive of the min in the range, and exclusive of the max in the range (except for the final bucket which includes the highest value).
col_cuts	A vector of cuts to colour a numeric variable. If "bin" is selected, the first number in the vector should be either -Inf or 0, and the final number Inf. If "quantile" is selected, the first number in the vector should be 0 and the final number should be 1. Defaults to quartiles.

<code>col_quantile_by_facet</code>	TRUE or FALSE whether quantiles should be calculated for each group of the facet variable. Defaults to TRUE.
<code>col_drop</code>	TRUE or FALSE of whether to drop unused levels from the legend. Defaults to FALSE.
<code>col_na_remove</code>	TRUE or FALSE of whether to remove NAs of the colour variable. Defaults to FALSE.
<code>pal</code>	Character vector of hex codes. Defaults to NULL, which selects the colorbrewer Set1 or viridis.
<code>pal_rev</code>	Reverses the palette. Defaults to FALSE.
<code>size</code>	Size of features (or shape outlines if polygon). Defaults to 0.5.
<code>alpha</code>	The opacity of polygons. Defaults to 0.9.
<code>facet_nrow</code>	The number of rows of faceted plots. Not applicable to where <code>isMobile</code> is TRUE.
<code>legend_ncol</code>	The number of columns in the legend.
<code>legend_digits</code>	Select the appropriate number of decimal places for numeric variable legend labels. Defaults to 1.
<code>coastline</code>	Add a sf object as a coastline (or administrative boundaries). Defaults to NULL. Use <code>nz</code> (or <code>nz_region</code>) to add a new zealand coastline. Or add a custom sf object.
<code>coastline_behind</code>	TRUE or FALSE as to whether the coastline is to be behind the sf object defined in the data argument. Defaults to FALSE.
<code>coastline_pal</code>	Colour of the coastline. Defaults to "#7F7F7F".
<code>title</code>	Title string. Defaults to "[Title]".
<code>subtitle</code>	Subtitle string. Defaults to "[Subtitle]".
<code>col_title</code>	Colour title string for the legend. Defaults to NULL.
<code>caption</code>	Caption title string. Defaults to NULL.
<code>legend_labels</code>	A vector of manual legend label values. Defaults to NULL, which results in automatic labels.
<code>font_family</code>	Font family to use. Defaults to "Helvetica".
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_col_title</code>	Number of characters to wrap the colour title to. Defaults to 25. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the <code>mobileDetect</code> function, then use <code>isMobile = input\$isMobile</code> .

Value

A ggplot object.

Examples

```
map_data <- example_sf_nz_river_wq %>%
  dplyr::filter(period == "1998-2017",
  indicator %in% c("Nitrate-nitrogen", "Dissolved reactive phosphorus"))

pal <- c("#4575B4", "#D3D3D3", "#D73027")

ggplot_sf_col_facet(data = map_data, col_var = trend_category, facet_var = indicator,
  coastline = nz, pal = pal,
  title = "Monitored river nitrate-nitrogen trends, 2008-17")
```

ggplot_sf_facet

Map of simple features in ggplot that is faceted.

Description

Map of simple features in ggplot that is faceted, but not coloured.

Usage

```
ggplot_sf_facet(data, facet_var, size = 0.5, alpha = 0.1, pal = NULL,
  facet_nrow = NULL, coastline = NULL, coastline_behind = TRUE,
  coastline_pal = "#7f7f7f", title = "[Title]", subtitle = NULL,
  caption = NULL, font_family = "Helvetica", font_size_title = NULL,
  font_size_body = NULL, wrap_title = 70, wrap_subtitle = 80,
  wrap_caption = 80, isMobile = FALSE)
```

Arguments

data	A sf object with defined coordinate reference system. Required input.
facet_var	Unquoted categorical variable to facet the data by. Required input.
size	Size of features (or shape outlines if polygon). Defaults to 0.5.
alpha	The alpha of the fill. Defaults to 0.1. Only applicable to polygons.
pal	Character vector of hex codes. Defaults to NULL, which selects the Stats NZ palette.
facet_nrow	The number of rows of faceted plots. Not applicable to where isMobile is TRUE.
coastline	Add a sf object as a coastline (or administrative boundaries). Defaults to NULL. Use nz (or nz_region) to add a new zealand coastline. Or add a custom sf object.
coastline_behind	TRUE or FALSE as to whether the coastline is to be behind the sf object defined in the data argument. Defaults to FALSE.

coastline_pal	Colour of the coastline. Defaults to "#7F7F7F".
title	Title string. Defaults to "[Title]".
subtitle	Subtitle string. Defaults to "[Subtitle]".
caption	Caption title string. Defaults to NULL.
font_family	Font family to use. Defaults to "Helvetica".
font_size_title	Font size for the title text. Defaults to 11.
font_size_body	Font size for all text other than the title. Defaults to 10.
wrap_title	Number of characters to wrap the title to. Defaults to 70. Not applicable where isMobile equals TRUE.
wrap_subtitle	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where isMobile equals TRUE.
wrap_caption	Number of characters to wrap the caption to. Defaults to 80. Not applicable where isMobile equals TRUE.
isMobile	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the mobileDetect function, then use isMobile = input\$isMobile.

Value

A ggplot object.

Examples

```
map_data <- example_sf_nz_river_wq %>%
  dplyr::filter(period == "1998-2017", indicator == "Nitrate-nitrogen")

ggplot_sf_facet(data = map_data, facet_var = trend_category, coastline = nz,
  title = "Monitored river nitrate-nitrogen trends, 2008-17")
```

ggplot_stars

Map of an array in ggplot.

Description

Map of an array in ggplot that is not coloured and not faceted.

Usage

```
ggplot_stars(data, pal = NULL, coastline = NULL,
  coastline_behind = FALSE, coastline_pal = "black",
  title = "[Title]", subtitle = NULL, caption = NULL,
  font_family = "Helvetica", font_size_title = NULL,
  font_size_body = NULL, wrap_title = 70, wrap_subtitle = 80,
  wrap_caption = 80, isMobile = FALSE)
```

Arguments

<code>data</code>	A stars object with 2 dimensions x and y. Required input.
<code>pal</code>	Character vector of hex codes, or provided objects with <code>pal_</code> prefixes.
<code>coastline</code>	Add a sf object as a coastline (or administrative boundaries). Defaults to NULL. Use <code>nz</code> (or <code>nz_region</code>) to add a new zealand coastline. Or add a custom sf object.
<code>coastline_behind</code>	TRUE or FALSE as to whether the coastline is to be behind the stars object defined in the data argument. Defaults to FALSE.
<code>coastline_pal</code>	Colour of the coastline. Defaults to "#7F7F7F".
<code>title</code>	Title string. Defaults to "[Title]".
<code>subtitle</code>	Subtitle string. Defaults to "[Subtitle]".
<code>caption</code>	Caption title string. Defaults to NULL.
<code>font_family</code>	Font family to use. Defaults to "Helvetica".
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the <code>mobileDetect</code> function, then use <code>isMobile = input\$isMobile</code> .

Value

A ggplot object.

Examples

```
ggplot_stars(data = example_stars_nz_no3n, coastline = nz)
```

`ggplot_stars_col` *Map of an array in ggplot that is coloured.*

Description

Map of an array in ggplot that is coloured, but not faceted.

Usage

```
ggplot_stars_col(data, col_method = "quantile", col_cuts = NULL,
  pal = NULL, pal_rev = FALSE, coastline = NULL,
  coastline_behind = TRUE, coastline_pal = "#7f7f7f",
  legend_ncol = 3, legend_digits = 1, title = "[Title]",
  subtitle = NULL, col_title = "", caption = NULL,
  legend_labels = NULL, font_family = "Helvetica",
  font_size_title = NULL, font_size_body = NULL, wrap_title = 70,
  wrap_subtitle = 80, wrap_col_title = 25, wrap_caption = 80,
  isMobile = FALSE)
```

Arguments

<code>data</code>	A stars object with 2 dimensions x and y, and 1 attribute layer that will be coloured. Required input.
<code>col_method</code>	The method of colouring grid, either "bin", "quantile" or "category." Defaults to "quantile".
<code>col_cuts</code>	A vector of cuts to colour a numeric variable. If "bin" is selected, the first number in the vector should be either -Inf or 0, and the final number Inf. If "quantile" is selected, the first number in the vector should be 0 and the final number should be 1. Defaults to quartiles.
<code>pal</code>	Character vector of hex codes, or provided objects with <code>pal_</code> prefixes. Defaults to <code>viridis</code> .
<code>pal_rev</code>	Reverses the palette. Defaults to <code>FALSE</code> .
<code>coastline</code>	Add a sf object as a coastline (or administrative boundaries). Defaults to <code>NULL</code> . Use <code>nz</code> (or <code>nz_region</code>) to add a new zealand coastline. Or add a custom sf object.
<code>coastline_behind</code>	<code>TRUE</code> or <code>FALSE</code> as to whether the coastline is to be behind the stars object defined in the data argument. Defaults to <code>FALSE</code> .
<code>coastline_pal</code>	Colour of the coastline. Defaults to <code>"#7F7F7F"</code> .
<code>legend_ncol</code>	The number of columns in the legend.
<code>legend_digits</code>	Select the appropriate number of decimal places for numeric variable auto legend labels. Defaults to 1.
<code>title</code>	Title string. Defaults to <code>"[Title]"</code> .
<code>subtitle</code>	Subtitle string. Defaults to <code>"[Subtitle]"</code> .
<code>col_title</code>	Colour title string for the legend. Defaults to <code>NULL</code> .
<code>caption</code>	Caption title string. Defaults to <code>NULL</code> .
<code>legend_labels</code>	A vector of manual legend label values. Defaults to <code>NULL</code> , which results in automatic labels.
<code>font_family</code>	Font family to use. Defaults to <code>"Helvetica"</code> .
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.

wrap_title	Number of characters to wrap the title to. Defaults to 70. Not applicable where isMobile equals TRUE.
wrap_subtitle	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where isMobile equals TRUE.
wrap_col_title	Number of characters to wrap the colour title to. Defaults to 25. Not applicable where isMobile equals TRUE.
wrap_caption	Number of characters to wrap the caption to. Defaults to 80. Not applicable where isMobile equals TRUE.
isMobile	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the mobileDetect function, then use isMobile = input\$isMobile.

Value

A ggplot object.

Examples

```
ggplot_stars_col(data = example_stars_nz_no3n, coastline = nz,
  col_method = "quantile", col_cuts = c(0, 0.05, 0.25, 0.5, 0.75, 0.95, 1),
  title = "River modelled median nitrate-nitrogen concentrations, 2013-17")
```

ggplot_stars_col_facet

Map of an array in ggplot that is coloured and faceted.

Description

Map of an array in ggplot that is coloured and faceted.

Usage

```
ggplot_stars_col_facet(data, col_method = "quantile",
  col_quantile_by_facet = TRUE, col_cuts = NULL, pal = NULL,
  pal_rev = FALSE, coastline = NULL, coastline_behind = TRUE,
  coastline_pal = "#7f7f7f", facet_nrow = NULL, legend_ncol = 3,
  legend_digits = 1, title = "[Title]", subtitle = NULL,
  col_title = "", caption = NULL, legend_labels = NULL,
  font_family = "Helvetica", font_size_title = NULL,
  font_size_body = NULL, wrap_title = 70, wrap_subtitle = 80,
  wrap_col_title = 25, wrap_caption = 80, isMobile = FALSE)
```

Arguments

<code>data</code>	A stars object with 2 dimensions, x and y, and multiple named attribute layers with usual convention of lower case and underscores. Each attribute layer will be a facet. Required input.
<code>col_method</code>	The method of colouring features, either "bin", "quantile" or "category." Defaults to "quantile". Note all numeric variables are cut to be inclusive of the min in the range, and exclusive of the max in the range (except for the final bucket which includes the highest value).
<code>col_quantile_by_facet</code>	TRUE or FALSE whether quantiles should be calculated for each group of the facet variable. Defaults to TRUE.
<code>col_cuts</code>	A vector of cuts to colour a numeric variable. If "bin" is selected, the first number in the vector should be either -Inf or 0, and the final number Inf. If "quantile" is selected, the first number in the vector should be 0 and the final number should be 1. Defaults to quartiles.
<code>pal</code>	Character vector of hex codes, or provided objects with <code>pal_</code> prefixes. Defaults to <code>viridis</code> .
<code>pal_rev</code>	Reverses the palette. Defaults to FALSE.
<code>coastline</code>	Add a sf object as a coastline (or administrative boundaries). Defaults to NULL. Use <code>nz</code> (or <code>nz_region</code>) to add a new zealand coastline. Or add a custom sf object.
<code>coastline_behind</code>	TRUE or FALSE as to whether the coastline is to be behind the stars object defined in the data argument. Defaults to FALSE.
<code>coastline_pal</code>	Colour of the coastline. Defaults to "#7F7F7F".
<code>facet_nrow</code>	The number of rows of faceted plots. Not applicable to where <code>isMobile</code> is TRUE.
<code>legend_ncol</code>	The number of columns in the legend.
<code>legend_digits</code>	Select the appropriate number of decimal places for numeric variable auto legend labels. Defaults to 1.
<code>title</code>	Title string. Defaults to "[Title]".
<code>subtitle</code>	Subtitle string. Defaults to "[Subtitle]".
<code>col_title</code>	Colour title string for the legend. Defaults to NULL.
<code>caption</code>	Caption title string. Defaults to NULL.
<code>legend_labels</code>	A vector of manual legend label values. Defaults to NULL, which results in automatic labels.
<code>font_family</code>	Font family to use. Defaults to "Helvetica".
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where <code>isMobile</code> equals TRUE.

wrap_subtitle	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where isMobile equals TRUE.
wrap_col_title	Number of characters to wrap the colour title to. Defaults to 25. Not applicable where isMobile equals TRUE.
wrap_caption	Number of characters to wrap the caption to. Defaults to 80. Not applicable where isMobile equals TRUE.
isMobile	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the mobileDetect function, then use isMobile = input\$isMobile.

Value

A ggplot object.

Examples

```
map_data1 <- example_stars_nz_no3n %>%
  rlang::set_names("Nitrate nitrogen")

map_data2 <- example_stars_nz_drp %>%
  rlang::set_names("Dissolved reactive phosphorus")

map_data <- c(map_data1, map_data2)

ggplot_stars_col_facet(data = map_data, coastline = nz,
  col_method = "quantile", col_cuts = c(0, 0.05, 0.25, 0.5, 0.75, 0.95, 1),
  title = "River modelled nutrient concentrations, 2013-17")
```

ggplot_stars_facet *Map of an array in ggplot that is faceted.*

Description

Map of an array in ggplot that is faceted, but not coloured.

Usage

```
ggplot_stars_facet(data, pal = NULL, coastline = NULL,
  coastline_behind = FALSE, coastline_pal = "black",
  facet_nrow = NULL, title = "[Title]", subtitle = NULL,
  caption = NULL, font_family = "Helvetica", font_size_title = NULL,
  font_size_body = NULL, wrap_title = 70, wrap_subtitle = 80,
  wrap_caption = 80, isMobile = FALSE)
```

Arguments

<code>data</code>	A stars object with 2 dimensions, x and y, and multiple named attribute layers with usual convention of lower case and underscores. These attribute layers will be faceted. Required input.
<code>pal</code>	Character vector of hex codes, or provided objects with <code>pal_</code> prefixes.
<code>coastline</code>	Add a <code>sf</code> object as a coastline (or administrative boundaries). Defaults to <code>NULL</code> . Use <code>nz</code> (or <code>nz_region</code>) to add a new zealand coastline. Or add a custom <code>sf</code> object.
<code>coastline_behind</code>	<code>TRUE</code> or <code>FALSE</code> as to whether the coastline is to be behind the stars object defined in the <code>data</code> argument. Defaults to <code>FALSE</code> .
<code>coastline_pal</code>	Colour of the coastline. Defaults to <code>"#7F7F7F"</code> .
<code>facet_nrow</code>	The number of rows of faceted plots. Not applicable to where <code>isMobile</code> is <code>TRUE</code> .
<code>title</code>	Title string. Defaults to <code>"[Title]"</code> .
<code>subtitle</code>	Subtitle string. Defaults to <code>"[Subtitle]"</code> .
<code>caption</code>	Caption title string. Defaults to <code>NULL</code> .
<code>font_family</code>	Font family to use. Defaults to <code>"Helvetica"</code> .
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where <code>isMobile</code> equals <code>TRUE</code> .
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where <code>isMobile</code> equals <code>TRUE</code> .
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where <code>isMobile</code> equals <code>TRUE</code> .
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to <code>FALSE</code> . If within an app with the <code>mobileDetect</code> function, then use <code>isMobile = input\$isMobile</code> .

Value

A `ggplot` object.

Examples

```
map_data1 <- example_stars_nz_no3n %>%
  rlang::set_names("nitrate_nitrogen")

map_data2 <- example_stars_nz_drp %>%
  rlang::set_names("dissolved_reactive_phosphorus")

map_data <- c(map_data1, map_data2)

ggplot_stars_facet(data = map_data, coastline = nz)
```

ggplot_vbar

*Vertical bar ggplot.***Description**

Vertical bar ggplot that is not coloured and not faceted.

Usage

```
ggplot_vbar(data, x_var, y_var, tip_var = NULL, x_labels = waiver(),
  x_pretty_n = 6, y_zero = TRUE, y_zero_line = TRUE,
  y_trans = "identity", y_labels = waiver(), y_pretty_n = 5,
  pal = NULL, width = 0.75, na_grey = FALSE, title = "[Title]",
  subtitle = NULL, x_title = "[X title]", y_title = "[Y title]",
  caption = NULL, font_family = "Helvetica", font_size_title = NULL,
  font_size_body = NULL, wrap_title = 70, wrap_subtitle = 80,
  wrap_x_title = 50, wrap_y_title = 50, wrap_caption = 80,
  isMobile = FALSE)
```

Arguments

<code>data</code>	A tibble or dataframe. Required input.
<code>x_var</code>	Unquoted numeric, date or categorical variable to be on the x axis. Required input.
<code>y_var</code>	Unquoted numeric variable to be on the y axis. Required input.
<code>tip_var</code>	Unquoted variable to be used as a customised tooltip in combination with <code>plotly::ggplotly(plot)</code> . Defaults to <code>NULL</code> .
<code>x_labels</code>	Argument to adjust the format of the x scale labels.
<code>x_pretty_n</code>	The desired number of intervals on the x axis, as calculated by the pretty algorithm. Defaults to 6. Not applicable where <code>isMobile</code> equals <code>TRUE</code> .
<code>y_zero</code>	<code>TRUE</code> or <code>FALSE</code> of whether the minimum of the y scale is zero. Defaults to <code>TRUE</code> .
<code>y_zero_line</code>	<code>TRUE</code> or <code>FALSE</code> whether to add a zero line in for when values are above and below zero. Defaults to <code>TRUE</code> .
<code>y_trans</code>	A string specifying a transformation for the y axis scale, such as <code>"log10"</code> or <code>"sqrt"</code> . Defaults to <code>"identity"</code> .
<code>y_labels</code>	Argument to adjust the format of the y scale labels.
<code>y_pretty_n</code>	The desired number of intervals on the y axis, as calculated by the pretty algorithm. Defaults to 5.
<code>pal</code>	Character vector of hex codes. Defaults to <code>NULL</code> , which selects the Stats NZ palette.
<code>width</code>	Width of bars. Defaults to 0.75.

<code>na_grey</code>	TRUE or FALSE of whether to provide wide grey bars for NA <code>y_var</code> values. Defaults to FALSE.
<code>title</code>	Title string. Defaults to [Title].
<code>subtitle</code>	Subtitle string. Defaults to [Subtitle].
<code>x_title</code>	X axis title string. Defaults to [X title].
<code>y_title</code>	Y axis title string. Defaults to [Y title].
<code>caption</code>	Caption title string. Defaults to NULL.
<code>font_family</code>	Font family to use. Defaults to "Helvetica".
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_x_title</code>	Number of characters to wrap the x title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_y_title</code>	Number of characters to wrap the y title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the <code>mobileDetect</code> function, then use <code>isMobile = input\$isMobile</code> .

Value

A ggplot object.

Examples

```
library(dplyr)

plot_data <- storms %>%
  group_by(year) %>%
  summarise(average_wind = round(mean(wind), 2))

plot <- ggplot_vbar(data = plot_data, x_var = year, y_var = average_wind,
  title = "Average wind speed of Atlantic storms, 1975-2015",
  x_title = "Year",
  y_title = "Average maximum sustained wind speed (knots)")

plot

plotly::ggplotly(plot)
```

ggplot_vbar_col	<i>Vertical bar ggplot that is coloured.</i>
-----------------	--

Description

Vertical bar ggplot that is coloured, but not faceted.

Usage

```
ggplot_vbar_col(data, x_var, y_var, col_var, tip_var = NULL,
  x_labels = waiver(), x_pretty_n = 6, y_zero = TRUE,
  y_zero_line = TRUE, y_trans = "identity", y_labels = waiver(),
  y_pretty_n = 5, col_drop = FALSE, position = "stack", pal = NULL,
  legend_ncol = 3, width = 0.75, title = "[Title]",
  subtitle = NULL, x_title = "[X title]", y_title = "[Y title]",
  col_title = "", caption = NULL, legend_labels = NULL,
  font_family = "Helvetica", font_size_title = NULL,
  font_size_body = NULL, wrap_title = 70, wrap_subtitle = 80,
  wrap_x_title = 50, wrap_y_title = 50, wrap_col_title = 25,
  wrap_caption = 80, isMobile = FALSE)
```

Arguments

data	A tibble or dataframe. Required input.
x_var	Unquoted numeric, date or categorical variable to be on the x axis. Required input.
y_var	Unquoted numeric variable to be on the y axis. Required input.
col_var	Unquoted categorical variable to colour the bars. Required input.
tip_var	Unquoted variable to be used as a customised tooltip in combination with <code>plotly::ggplotly(plot)</code> . Defaults to NULL.
x_labels	Argument to adjust the format of the x scale labels.
x_pretty_n	The desired number of intervals on the x axis, as calculated by the pretty algorithm. Defaults to 6. Not applicable where <code>isMobile</code> equals TRUE.
y_zero	TRUE or FALSE of whether the minimum of the y scale is zero. Defaults to TRUE.
y_zero_line	TRUE or FALSE whether to add a zero line in for when values are above and below zero. Defaults to TRUE.
y_trans	A string specifying a transformation for the y axis scale, such as "log10" or "sqrt". Defaults to "identity".
y_labels	Argument to adjust the format of the y scale labels.
y_pretty_n	The desired number of intervals on the y axis, as calculated by the pretty algorithm. Defaults to 5.
col_drop	TRUE or FALSE of whether to drop unused levels from the legend. Defaults to FALSE.

<code>position</code>	Whether bars are positioned by "stack" or "dodge". Defaults to "stack".
<code>pal</code>	Character vector of hex codes. Defaults to NULL, which selects the Stats NZ palette.
<code>legend_ncol</code>	The number of columns in the legend.
<code>width</code>	Width of bars. Defaults to 0.75.
<code>title</code>	Title string. Defaults to [Title].
<code>subtitle</code>	Subtitle string. Defaults to [Subtitle].
<code>x_title</code>	X axis title string. Defaults to [X title].
<code>y_title</code>	Y axis title string. Defaults to [Y title].
<code>col_title</code>	Colour title string for the legend. Defaults to NULL.
<code>caption</code>	Caption title string. Defaults to NULL.
<code>legend_labels</code>	A vector of manual legend label values. Defaults to NULL, which results in automatic labels.
<code>font_family</code>	Font family to use. Defaults to "Helvetica".
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_x_title</code>	Number of characters to wrap the x title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_y_title</code>	Number of characters to wrap the y title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_col_title</code>	Number of characters to wrap the colour title to. Defaults to 25. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the <code>mobileDetect</code> function, then use <code>isMobile = input\$isMobile</code> .

Value

A ggplot object.

Examples

```
library(dplyr)

plot_data <- storms %>%
  mutate(status = stringr::str_to_sentence(status)) %>%
  group_by(year, status) %>%
```

```

  summarise(average_wind = round(mean(wind), 2))

plot <- ggplot_vbar_col(data = plot_data, x_var = year, y_var = average_wind, col_var = status)

plot

plotly::ggplotly(plot)

```

`ggplot_vbar_col_facet` *Vertical bar ggplot that is coloured and faceted.*

Description

Vertical bar ggplot that is coloured and faceted.

Usage

```

ggplot_vbar_col_facet(data, x_var, y_var, col_var, facet_var,
  tip_var = NULL, x_labels = waiver(), x_pretty_n = 5,
  y_zero = TRUE, y_zero_line = TRUE, y_trans = "identity",
  y_labels = waiver(), y_pretty_n = 5, col_drop = FALSE,
  position = "stack", facet_scales = "fixed", facet_nrow = NULL,
  pal = NULL, legend_ncol = 3, width = 0.75, title = "[Title]",
  subtitle = NULL, x_title = "[X title]", y_title = "[Y title]",
  col_title = "", caption = NULL, legend_labels = NULL,
  font_family = "Helvetica", font_size_title = NULL,
  font_size_body = NULL, wrap_title = 70, wrap_subtitle = 80,
  wrap_x_title = 50, wrap_y_title = 50, wrap_col_title = 25,
  wrap_caption = 80, isMobile = FALSE)

```

Arguments

<code>data</code>	A tibble or dataframe. Required input.
<code>x_var</code>	Unquoted numeric, date or categorical variable to be on the x axis. Required input.
<code>y_var</code>	Unquoted numeric variable to be on the y axis. Required input.
<code>col_var</code>	Unquoted categorical variable to colour the bars. Required input.
<code>facet_var</code>	Unquoted categorical variable to facet the data by. Required input.
<code>tip_var</code>	Unquoted variable to be used as a customised tooltip in combination with <code>plotly::ggplotly(plot)</code> . Defaults to <code>NULL</code> .
<code>x_labels</code>	Argument to adjust the format of the x scale labels.
<code>x_pretty_n</code>	The desired number of intervals on the x axis, as calculated by the pretty algorithm. Defaults to 5. Not applicable where <code>isMobile</code> equals <code>TRUE</code> .
<code>y_zero</code>	<code>TRUE</code> or <code>FALSE</code> of whether the minimum of the y scale is zero. Defaults to <code>TRUE</code> .

<code>y_zero_line</code>	TRUE or FALSE whether to add a zero line in for when values are above and below zero. Defaults to TRUE.
<code>y_trans</code>	A string specifying a transformation for the y axis scale, such as "log10" or "sqrt". Defaults to "identity".
<code>y_labels</code>	Argument to adjust the format of the y scale labels.
<code>y_pretty_n</code>	The desired number of intervals on the y axis, as calculated by the pretty algorithm. Defaults to 5.
<code>col_drop</code>	TRUE or FALSE of whether to drop unused levels from the legend. Defaults to FALSE.
<code>position</code>	Whether bars are positioned by "stack" or "dodge". Defaults to "stack".
<code>facet_scales</code>	Whether facet_scales should be "fixed" across facets, "free" in both directions, or free in just one direction (i.e. "free_x" or "free_y"). Defaults to "fixed".
<code>facet_nrow</code>	The number of rows of faceted plots. Defaults to NULL, which generally chooses 2 rows. Not applicable to where isMobile is TRUE.
<code>pal</code>	Character vector of hex codes. Defaults to NULL, which selects the Stats NZ palette.
<code>legend_ncol</code>	The number of columns in the legend.
<code>width</code>	Width of bars. Defaults to 0.75.
<code>title</code>	Title string. Defaults to [Title].
<code>subtitle</code>	Subtitle string. Defaults to [Subtitle].
<code>x_title</code>	X axis title string. Defaults to [X title].
<code>y_title</code>	Y axis title string. Defaults to [Y title].
<code>col_title</code>	Colour title string for the legend. Defaults to NULL.
<code>caption</code>	Caption title string. Defaults to NULL.
<code>legend_labels</code>	A vector of manual legend label values. Defaults to NULL, which results in automatic labels.
<code>font_family</code>	Font family to use. Defaults to "Helvetica".
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where isMobile equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where isMobile equals TRUE.
<code>wrap_x_title</code>	Number of characters to wrap the x title to. Defaults to 50. Not applicable where isMobile equals TRUE.
<code>wrap_y_title</code>	Number of characters to wrap the y title to. Defaults to 50. Not applicable where isMobile equals TRUE.
<code>wrap_col_title</code>	Number of characters to wrap the colour title to. Defaults to 25. Not applicable where isMobile equals TRUE.
<code>wrap_caption</code>	Number of characters to wrap the caption to. Defaults to 80. Not applicable where isMobile equals TRUE.
<code>isMobile</code>	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the mobileDetect function, then use isMobile = input\$sisMobile.

Value

A ggplot object.

Examples

```
library(dplyr)

plot_data <- storms %>%
  mutate(status = stringr::str_to_sentence(status)) %>%
  group_by(year, status, name) %>%
  summarise(average_wind = round(mean(wind), 2)) %>%
  filter(year %in% 1975:1980) %>%
  filter(!(status == "Tropical storm" & year == 1980)) %>%
  filter(name %in% c("Karl", "Juliet", "Jeanne", "Ivan", "Hermine",
                    "Henri", "Gloria", "Georges", "Frederic"))

plot <- ggplot_vbar_col_facet(data = plot_data, x_var = year, y_var = average_wind,
                             col_var = name, facet_var = status)

plot

plotly::ggplotly(plot)
```

ggplot_vbar_facet	<i>Vertical bar ggplot that is faceted.</i>
-------------------	---

Description

Vertical bar ggplot that is faceted, but not coloured.

Usage

```
ggplot_vbar_facet(data, x_var, y_var, facet_var, tip_var = NULL,
  x_labels = waiver(), x_pretty_n = 5, y_zero = TRUE,
  y_zero_line = TRUE, y_trans = "identity", y_labels = waiver(),
  y_pretty_n = 5, facet_scales = "fixed", facet_nrow = NULL,
  pal = NULL, width = 0.75, na_grey = FALSE, title = "[Title]",
  subtitle = NULL, x_title = "[X title]", y_title = "[Y title]",
  caption = NULL, font_family = "Helvetica", font_size_title = NULL,
  font_size_body = NULL, wrap_title = 70, wrap_subtitle = 80,
  wrap_x_title = 50, wrap_y_title = 50, wrap_caption = 80,
  isMobile = FALSE)
```

Arguments

data	A tibble or dataframe. Required input.
x_var	Unquoted numeric, date or categorical variable to be on the x axis. Required input.

<code>y_var</code>	Unquoted numeric variable to be on the y axis. Required input.
<code>facet_var</code>	Unquoted categorical variable to facet the data by. Required input.
<code>tip_var</code>	Unquoted variable to be used as a customised tooltip in combination with <code>plotly::ggplotly(plot)</code> . Defaults to NULL.
<code>x_labels</code>	Argument to adjust the format of the x scale labels.
<code>x_pretty_n</code>	The desired number of intervals on the x axis, as calculated by the pretty algorithm. Defaults to 5. Not applicable where <code>isMobile</code> equals TRUE.
<code>y_zero</code>	TRUE or FALSE of whether the minimum of the y scale is zero. Defaults to TRUE.
<code>y_zero_line</code>	TRUE or FALSE whether to add a zero line in for when values are above and below zero. Defaults to TRUE.
<code>y_trans</code>	A string specifying a transformation for the y axis scale, such as "log10" or "sqrt". Defaults to "identity".
<code>y_labels</code>	Argument to adjust the format of the y scale labels.
<code>y_pretty_n</code>	The desired number of intervals on the y axis, as calculated by the pretty algorithm. Defaults to 5.
<code>facet_scales</code>	Whether <code>facet_scales</code> should be "fixed" across facets, "free" in both directions, or free in just one direction (i.e. "free_x" or "free_y"). Defaults to "fixed".
<code>facet_nrow</code>	The number of rows of faceted plots. Defaults to NULL, which generally chooses 2 rows. Not applicable to where <code>isMobile</code> is TRUE.
<code>pal</code>	Character vector of hex codes. Defaults to NULL, which selects the Stats NZ palette.
<code>width</code>	Width of bars. Defaults to 0.75.
<code>na_grey</code>	TRUE or FALSE of whether to provide wide grey bars for NA <code>y_var</code> values. Defaults to FALSE. Only functional where <code>facet_scales = "fixed" or "free_x"</code> .
<code>title</code>	Title string. Defaults to [Title].
<code>subtitle</code>	Subtitle string. Defaults to [Subtitle].
<code>x_title</code>	X axis title string. Defaults to [X title].
<code>y_title</code>	Y axis title string. Defaults to [Y title].
<code>caption</code>	Caption title string. Defaults to NULL.
<code>font_family</code>	Font family to use. Defaults NULL.
<code>font_size_title</code>	Font size for the title text. Defaults to 11.
<code>font_size_body</code>	Font size for all text other than the title. Defaults to 10.
<code>wrap_title</code>	Number of characters to wrap the title to. Defaults to 70. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_subtitle</code>	Number of characters to wrap the subtitle to. Defaults to 80. Not applicable where <code>isMobile</code> equals TRUE.
<code>wrap_x_title</code>	Number of characters to wrap the x title to. Defaults to 50. Not applicable where <code>isMobile</code> equals TRUE.

wrap_y_title	Number of characters to wrap the y title to. Defaults to 50. Not applicable where isMobile equals TRUE.
wrap_caption	Number of characters to wrap the caption to. Defaults to 80. Not applicable where isMobile equals TRUE.
isMobile	Whether the plot is to be displayed on a mobile device. Defaults to FALSE. If within an app with the mobileDetect function, then use isMobile = input\$isMobile.

Value

A ggplot object.

Examples

```
library(dplyr)

plot_data <- storms %>%
  mutate(status = stringr::str_to_sentence(status)) %>%
  group_by(year, status) %>%
  summarise(average_wind = round(mean(wind), 2))

plot <- ggplot_vbar_facet(data = plot_data, x_var = year, y_var = average_wind,
                        facet_var = status)

plot

plotly::ggplotly(plot)
```

leaflet_basemap	<i>Basemap stack in leaflet.</i>
-----------------	----------------------------------

Description

Make a stack of leaflet baselayers for use in shiny apps.

Usage

```
leaflet_basemap(top_layer = "light")
```

Arguments

top_layer	The first layer to start in the basemap stack. Either "light", "dark", "street", "satellite", or "ocean". Defaults to "light".
-----------	--

Value

A leaflet object.

Examples

```
leaflet_basemap("dark")
```

leaflet_basemap_nz *Basemap stack in leaflet for New Zealand.*

Description

Make a stack of leaflet baselayers for use in New Zealand focussed shiny apps.

Usage

```
leaflet_basemap_nz(top_layer = "light")
```

Arguments

top_layer The first layer to start in the basemap stack. Either "light", "dark", "street", "satellite", or "ocean". Defaults to "light".

Value

A leaflet object.

Examples

```
leaflet_basemap_nz("dark")
```

leaflet_sf *Map of simple features in leaflet.*

Description

Map of simple features in leaflet that is not coloured.

Usage

```
leaflet_sf(data, pal = NULL,  
  popup = leafpop::popupTable(sentence_spaced_colnames(data)),  
  radius = 1, weight = 2, opacity = 0.1, stroke = TRUE,  
  title = "[Title]", legend_digits = 1, legend_labels = "[Feature]",  
  basemap = "light", map_id = "map")
```

Arguments

data	An sf object of geometry type point/multipoint, linestring/multilinestring or polygon/multipolygon geometry type. Required input.
pal	Character vector of hex codes. Defaults to NULL, which selects the Stats NZ palette.
popup	HTML strings for use in popup. Defaults to making a leafpop::popupTable of all attribute columns in the sf object.
radius	Radius of points. Defaults to 2.
weight	Stroke border size. Defaults to 2.
opacity	The opacity of the fill. Defaults to 0.1. Only applicable to polygons.
stroke	TRUE or FALSE of whether to draw a border around the features. Defaults to TRUE.
title	A title string that will be wrapped into the legend. Defaults to "Title"
legend_digits	Select the appropriate number of decimal places for numeric variable auto legend labels. Defaults to 1.
legend_labels	A vector of legend label values. Defaults to "Feature".
basemap	The underlying basemap. Either "light", "dark", "satellite", "street", or "ocean". Defaults to "light". Only applicable where shiny equals FALSE.
map_id	The shiny map id for a leaflet map within a shiny app. For standard single-map apps, id "map" should be used. For dual-map apps, "map1" and "map2" should be used. Defaults to "map".

Value

A leaflet object.

Examples

```
map_data <- example_sf_nz_river_wq %>%
  dplyr::filter(period == "1998-2017", indicator == "Nitrate-nitrogen")

leaflet_sf(map_data)
```

leaflet_sf_col

Map of simple features in leaflet that is coloured.

Description

Map of simple features in leaflet that is coloured.

Usage

```
leaflet_sf_col(data, col_var, label_var = NULL, col_method = NULL,
  col_cuts = NULL, col_drop = FALSE, col_na_remove = FALSE,
  pal = NULL, pal_rev = FALSE,
  popup = leafpop::popupTable(sentence_spaced_colnames(data)),
  radius = 1, weight = 2, opacity = 0.9, stroke = TRUE,
  title = "[Title]", legend_digits = 1, legend_labels = NULL,
  basemap = "light", map_id = "map")
```

Arguments

<code>data</code>	An sf object of geometry type point/multipoint, linestring/multilinestring or polygon/multipolygon geometry type. Required input.
<code>col_var</code>	Unquoted variable to colour the features by. Required input.
<code>label_var</code>	Unquoted variable to label the features by. If NULL, defaults to using the colour variable.
<code>col_method</code>	The method of colouring features, either "bin", "quantile" or "category." if categorical colour variable, NULL results in "category". If numeric variable, defaults to "quantile". Note all numeric variables are cut to be inclusive of the min in the range, and exclusive of the max in the range (except for the final bucket which includes the highest value).
<code>col_cuts</code>	A vector of cuts to colour a numeric variable. If "bin" is selected, the first number in the vector should be either -Inf or 0, and the final number Inf. If "quantile" is selected, the first number in the vector should be 0 and the final number should be 1. Defaults to quartiles.
<code>col_drop</code>	TRUE or FALSE of whether to drop unused levels from the legend. Defaults to FALSE.
<code>col_na_remove</code>	TRUE or FALSE of whether to remove NAs of the colour variable. Defaults to FALSE.
<code>pal</code>	Character vector of hex codes. Defaults to NULL, which selects the colorbrewer Set1 or viridis.
<code>pal_rev</code>	Reverses the palette. Defaults to FALSE.
<code>popup</code>	HTML strings for use in popup. Defaults to making a leafpop::popupTable of all attribute columns in the sf object.
<code>radius</code>	Radius of points. Defaults to 2.
<code>weight</code>	Stroke border size. Defaults to 2.
<code>opacity</code>	The opacity of polygons. Defaults to 0.9.
<code>stroke</code>	TRUE or FALSE of whether to draw a border around the features. Defaults to TRUE.
<code>title</code>	A title string that will be wrapped into the legend. Defaults to "Title".
<code>legend_digits</code>	Select the appropriate number of decimal places for numeric variable auto legend labels. Defaults to 1.
<code>legend_labels</code>	A vector of manual legend label values. Defaults to NULL, which results in automatic labels.

basemap	The underlying basemap. Either "light", "dark", "satellite", "street", or "ocean". Defaults to "light". Only applicable where shiny equals FALSE.
map_id	The shiny map id for a leaflet map within a shiny app. For standard single-map apps, id "map" should be used. For dual-map apps, "map1" and "map2" should be used. Defaults to "map".

Value

A leaflet object.

Examples

```
leaflet_sf_col(example_sf_nz_livestock, dairydens,
  col_method = "quantile", col_cuts = c(0, 0.25, 0.5, 0.75, 0.95, 1),
  title = "Dairy density in count per km\u00b2, 2017")

leaflet_sf_col(example_sf_nz_livestock, dairydens,
  col_method = "bin", col_cuts = c(0, 10, 50, 100, 150, 200, Inf), legend_digits = 0,
  title = "Dairy density in count per km\u00b2, 2017")

map_data <- example_sf_nz_river_wq %>%
  dplyr::filter(period == "1998-2017", indicator == "Nitrate-nitrogen")

pal <- c("#4575B4", "#D3D3D3", "#D73027")

leaflet_sf_col(map_data, trend_category, pal = pal, col_method = "category",
  title = "Monitored river nitrate-nitrogen trends, 2008\u20132017")
```

leaflet_stars *Map of an array in leaflet.*

Description

Map of an array in leaflet.

Usage

```
leaflet_stars(data, pal = NULL, opacity = 0.5, title = "[Title]",
  legend_digits = 1, legend_labels = "[Array]", basemap = "light",
  map_id = "map")
```

Arguments

data	A stars object with dimensions x and y with crs in wgs84 (epsg4326). Required input.
pal	Character vector of hex codes, or provided objects with pal_ prefixes.
opacity	Sets the opacity of the grid cells. Defaults to 0.1.
title	A title string that will be wrapped into the legend. Defaults to "Title".

legend_digits	Select the appropriate number of decimal places for numeric variable auto legend labels. Defaults to 1.
legend_labels	A vector of legend label values. Defaults to "[Array]".
basemap	The underlying basemap. Either "light", "dark", "satellite", "street", or "ocean". Defaults to "light". Only applicable where shiny equals FALSE.
map_id	This argument is only relevant for within apps. For single map shiny apps, the id "map" can be used. For dual map apps, "map1" and "map2" should be used. Defaults to "map".

Value

A leaflet object.

Examples

```
leaflet_stars(example_stars_nz_no3n)
```

leaflet_stars_col	<i>Map of an array in leaflet that is coloured.</i>
-------------------	---

Description

Map of an array in leaflet that is coloured.

Usage

```
leaflet_stars_col(data, col_method = "quantile", col_cuts = NULL,
  pal = NULL, pal_rev = FALSE, opacity = 1, legend_digits = 1,
  title = "[Title]", legend_labels = NULL, basemap = "light",
  map_id = "map")
```

Arguments

data	A stars object with dimensions x and y, and 1 attribute layer with crs in wgs84 (epsg4326). Required input.
col_method	The method of colouring features, either "bin", "quantile" or "category." Defaults to "quantile". Note all numeric variables are cut to be inclusive of the min in the range, and exclusive of the max in the range (except for the final bucket which includes the highest value).
col_cuts	A vector of cuts to colour a numeric variable. If "bin" is selected, the first number in the vector should be either -Inf or 0, and the final number Inf. If "quantile" is selected, the first number in the vector should be 0 and the final number should be 1. Defaults to quartiles.
pal	Character vector of hex codes, or provided objects with pal_ prefixes. Defaults to viridis.

pal_rev	Reverses the palette. Defaults to FALSE.
opacity	Sets the opacity of the grid cells. Defaults to 0.9.
legend_digits	Select the appropriate number of decimal places for the auto legend. Defaults to 1.
title	A title string that will be wrapped into the legend. Defaults to "Title".
legend_labels	A vector of legend label values. Defaults to NULL, which results in automatic labels.
basemap	The underlying basemap. Either "light", "dark", "satellite", "street", or "ocean". Defaults to "light". Only applicable where shiny equals FALSE.
map_id	This argument is only relevant for within apps. For single map shiny apps, the id "map" can be used. For dual map apps, "map1" and "map2" should be used. Defaults to "map".

Value

A leaflet object.

Examples

```
leaflet_stars_col(example_stars_nz_no3n,
  col_method = "quantile", col_cuts = c(0, 0.05, 0.25, 0.5, 0.75, 0.95, 1),
  title = "River modelled median nitrate-nitrogen concentrations in g/m\u00b3, 2013\u20132017")
```

numeric_legend_labels *Numeric legend labels.*

Description

Pretty numeric legend labels.

Usage

```
numeric_legend_labels(bin_cuts, legend_digits = 1)
```

Arguments

bin_cuts A numeric vector of bin cuts from which to create a vector of legend labels.

legend_digits The number of digits to round the legend labels.

Value

A vector of labels.

nz	<i>New Zealand coastline.</i>
----	-------------------------------

Description

New Zealand coastline, excluding the Chathams, that is simplified for ggplot.

Usage

```
nz
```

Format

An sf object.

Source

<https://data.linz.govt.nz/layer/51153-nz-coastlines-and-islands-polygons-topo-150k/>

Examples

```
nz  
ggplot_sf(nz)  
ggplot_sf(dplyr::slice(nz, 2))  
ggplot_sf(dplyr::slice(nz, 1, 3))
```

pal_ea19	<i>Colour palette for categorical variables.</i>
----------	--

Description

Colour palette for categorical variables.

Usage

```
pal_ea19
```

Format

An object of class character of length 9.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_ea19)
```

pal_ea19_nof4	<i>Colour palette for 4 categories from good to bad</i>
---------------	---

Description

A colour palette used for depicting subcategories in the NZ conservation threat status.

Usage

```
pal_ea19_nof4
```

Format

An object of class character of length 4.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_ea19_nof4)
```

pal_ea19_nof5	<i>Colour palette for 5 categories from good to bad</i>
---------------	---

Description

A colour palette used for depicting subcategories in the NZ conservation threat status.

Usage

```
pal_ea19_nof5
```

Format

An object of class character of length 5.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_ea19_nof5)
```

pal_ea19_nztcs_c *Colour palette for the NZTCS.*

Description

A colour palette used for depicting categories in the NZ conservation threat status.

Usage

```
pal_ea19_nztcs_c
```

Format

An object of class character of length 4.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_ea19_nztcs_c)
```

pal_ea19_trend2 *Colour palette for a categorical trend variable with 2 values.*

Description

Colour palette for categorical variables.

Usage

```
pal_ea19_trend2
```

Format

An object of class character of length 2.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_ea19_trend2)
```

pal_ea19_trend3 *Colour palette for a categorical trend variable with 3 values.*

Description

Colour palette for categorical variables.

Usage

```
pal_ea19_trend3
```

Format

An object of class character of length 3.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_ea19_trend3)
```

pal_ea19_trend5 *Colour palette for a categorical trend variable with 5 values.*

Description

Colour palette for categorical variables.

Usage

```
pal_ea19_trend5
```

Format

An object of class character of length 5.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_ea19_trend5)
```

pal_point_set1 *Colour palette for categorical variables for points.*

Description

Colour palette for categorical variables.

Usage

```
pal_point_set1
```

Format

An object of class character of length 9.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_point_set1)
```

pal_point_trend2 *Colour palette for a categorical trend variable with 2 values for points.*

Description

Colour palette for categorical variables.

Usage

```
pal_point_trend2
```

Format

An object of class character of length 2.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_point_trend2)
```

pal_point_trend3 *Colour palette for a categorical trend variable with 3 values for points.*

Description

Colour palette for categorical variables.

Usage

```
pal_point_trend3
```

Format

An object of class character of length 3.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_point_trend3)
```

pal_point_trend5 *Colour palette for a categorical trend variable with 5 values for points.*

Description

Colour palette for categorical variables.

Usage

```
pal_point_trend5
```

Format

An object of class character of length 5.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_point_trend5)
```

pal_snz	<i>Colour palette for categorical variables.</i>
---------	--

Description

Colour palette for categorical variables.

Usage

```
pal_snz
```

Format

An object of class character of length 9.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_snz)
```

pal_snz_nof4	<i>Colour palette for 4 categories from good to bad</i>
--------------	---

Description

A colour palette used for depicting subcategories in the NZ conservation threat status.

Usage

```
pal_snz_nof4
```

Format

An object of class character of length 4.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_snz_nof4)
```

pal_snz_nof5	<i>Colour palette for 5 categories from good to bad</i>
--------------	---

Description

A colour palette used for depicting subcategories in the NZ conservation threat status.

Usage

```
pal_snz_nof5
```

Format

An object of class character of length 5.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_snz_nof5)
```

pal_snz_nztcs_c	<i>Colour palette for the NZTCS.</i>
-----------------	--------------------------------------

Description

A colour palette used for depicting categories in the NZ conservation threat status.

Usage

```
pal_snz_nztcs_c
```

Format

An object of class character of length 4.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_snz_nztcs_c)
```

pal_snz_nztcs_s *Colour palette for the NZTCS.*

Description

A colour palette used for depicting subcategories in the NZ conservation threat status.

Usage

```
pal_snz_nztcs_s
```

Format

An object of class character of length 9.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_snz_nztcs_s)
```

pal_snz_trend2 *Colour palette for a categorical trend variable with 2 values.*

Description

Colour palette for categorical variables.

Usage

```
pal_snz_trend2
```

Format

An object of class character of length 2.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_snz_trend2)
```

pal_snz_trend3	<i>Colour palette for a categorical trend variable with 3 values.</i>
----------------	---

Description

Colour palette for categorical variables.

Usage

```
pal_snz_trend3
```

Format

An object of class character of length 3.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_snz_trend3)
```

pal_snz_trend5	<i>Colour palette for a categorical trend variable with 5 values.</i>
----------------	---

Description

Colour palette for categorical variables.

Usage

```
pal_snz_trend5
```

Format

An object of class character of length 5.

Value

A vector of hex codes.

Examples

```
scales::show_col(pal_snz_trend5)
```

plotly_camera	<i>Remove plotly buttons from the mode bar, other than the camera.</i>
---------------	--

Description

Remove plotly buttons from the mode bar, other than the camera and plotly logo.

Usage

```
plotly_camera(plotly, logo = FALSE)
```

Arguments

plotly	A plotly object.
logo	TRUE or FALSE of whether to display the plotly logo. Defaults to FALSE.

Examples

```
plot_data <- dplyr::sample_frac(ggplot2::diamonds, 0.05)
plot <- ggplot_scatter(data = plot_data, x_var = carat, y_var = price)
plotly::ggplotly(plot, tooltip = "text") %>%
  plotly_camera()
```

plotly_legend_order	<i>Order plotly legend elements.</i>
---------------------	--------------------------------------

Description

Order plotly legend elements.

Usage

```
plotly_legend_order(plotly, numeric_order = NULL)
```

Arguments

plotly	A plotly object.
numeric_order	A vector specifying the numeric order of elements. Required input.

Examples

```
plot_data <- ggplot2::diamonds %>%
  dplyr::mutate(cut = stringr::str_to_sentence(cut)) %>%
  dplyr::group_by(cut, clarity) %>%
  dplyr::summarise(average_price = mean(price)) %>%
  dplyr::mutate(average_price_thousands = round(average_price / 1000, 1)) %>%
  dplyr::ungroup()

plot <- ggplot_hbar_col(data = plot_data,
  x_var = average_price_thousands,
  y_var = cut,
  col_var = clarity,
  legend_ncol = 4,
  title = "Average diamond price by cut and clarity",
  x_title = "Average price ($US thousands)",
  y_title = "Cut")

plotly::ggplotly(plot, tooltip = "text")

plotly::ggplotly(plot, tooltip = "text") %>%
  plotly_legend_order(c(4, 1:3, 5:8))
```

plotly_legend_rev *Reverse plotly legend elements.*

Description

Reverse plotly legend elements.

Usage

```
plotly_legend_rev(plotly)
```

Arguments

plotly A plotly object.

Examples

```
plot_data <- ggplot2::diamonds %>%
  dplyr::mutate(cut = stringr::str_to_sentence(cut)) %>%
  dplyr::group_by(cut, clarity) %>%
  dplyr::summarise(average_price = mean(price)) %>%
  dplyr::mutate(average_price_thousands = round(average_price / 1000, 1)) %>%
  dplyr::ungroup()

plot <- ggplot_hbar_col(data = plot_data,
  x_var = average_price_thousands,
  y_var = cut,
```

```

      col_var = clarity,
      legend_ncol = 4,
      title = "Average diamond price by cut and clarity",
      x_title = "Average price ($US thousands)",
      y_title = "Cut")

plotly::ggplotly(plot, tooltip = "text")

plotly::ggplotly(plot, tooltip = "text") %>%
  plotly_legend_rev()

```

run_template *Run shiny template with option to download.*

Description

Run shiny template with option to download.

Usage

```
run_template(template = "template1", ...)
```

Arguments

template	template name. Available templates are "template1" for a graph and table, and "template2" and "template3" also providing maps. Defaults to "template1".
...	passed to shiny::runApp

sentence_spaced_colnames
Convert column names to sentence case.

Description

A function to convert colnames to snakecase and then to sentence case to be used in functions for making hover values.

Usage

```
sentence_spaced_colnames(data)
```

Arguments

data	The number of digits to round the legend labels.
------	--

Value

A numeric value.

signed_sqrt_trans	<i>Signed square root ggplot scale transformation.</i>
-------------------	--

Description

A signed square root ggplot scale transformation.

Usage

```
signed_sqrt_trans()
```

Value

A ggplot scale transformation.

theme_box	<i>Theme for box ggplots.</i>
-----------	-------------------------------

Description

Theme for box ggplots.

Usage

```
theme_box(font_family = "Helvetica", font_size_title = 11,  
          font_size_body = 10)
```

Arguments

font_family Font family to use. Defaults to "Helvetica".

font_size_title

Font size for the title text. Defaults to 11.

font_size_body Font size for all text other than the title. Defaults to 10.

Value

A ggplot theme.

Examples

```
ggplot2::ggplot() +  
  theme_box("Courier", 9, 7) +  
  ggplot2::ggtitle("This is a title of a selected font family and size")
```

theme_hbar	<i>Theme for horizontal bar ggplots.</i>
------------	--

Description

Theme for horizontal bar ggplots.

Usage

```
theme_hbar(font_family = "Helvetica", font_size_title = 11,  
           font_size_body = 10)
```

Arguments

font_family Font family to use. Defaults to "Helvetica".
font_size_title Font size for the title text. Defaults to 11.
font_size_body Font size for all text other than the title. Defaults to 10.

Value

A ggplot theme.

Examples

```
ggplot2::ggplot() +  
  theme_hbar("Courier", 9, 7) +  
  ggplot2::ggtitle("This is a title of a selected font family and size")
```

theme_line	<i>Theme for line ggplots.</i>
------------	--------------------------------

Description

Theme for line ggplots.

Usage

```
theme_line(font_family = "Helvetica", font_size_title = 11,  
           font_size_body = 10)
```

Arguments

font_family Font family to use. Defaults to "Helvetica".
font_size_title Font size for the title text. Defaults to 11.
font_size_body Font size for all text other than the title. Defaults to 10.

Value

A ggplot theme.

Examples

```
ggplot2::ggplot() +  
  theme_line("Courier", 9, 7) +  
  ggplot2::ggtitle("This is a title of a selected font family and size")
```

theme_scatter	<i>Theme for scatter ggplots.</i>
---------------	-----------------------------------

Description

Theme for scatter ggplots.

Usage

```
theme_scatter(font_family = "Helvetica", font_size_title = 11,  
  font_size_body = 10)
```

Arguments

font_family Font family to use. Defaults to "Helvetica".

font_size_title
 Font size for the title text. Defaults to 11.

font_size_body Font size for all text other than the title. Defaults to 10.

Value

A ggplot theme.

Examples

```
ggplot2::ggplot() +  
  theme_scatter("Courier", 9, 7) +  
  ggplot2::ggtitle("This is a title of a selected font family and size")
```

theme_sf	<i>Theme for ggplot maps of simple features.</i>
----------	--

Description

Theme for ggplot maps of simple features.

Usage

```
theme_sf(font_family = "Helvetica", font_size_title = 11,  
         font_size_body = 10)
```

Arguments

font_family Font family to use. Defaults to "Helvetica".
font_size_title Font size for the title text. Defaults to 11.
font_size_body Font size for all text other than the title. Defaults to 10.

Value

A ggplot theme.

Examples

```
ggplot2::ggplot() +  
  theme_sf("Courier", 9, 7) +  
  ggplot2::ggtitle("This is a title of a selected font family and size")
```

theme_stars	<i>Theme for ggplot maps of arrays.</i>
-------------	---

Description

Theme for ggplot maps of arrays.

Usage

```
theme_stars(font_family = "Helvetica", font_size_title = 11,  
           font_size_body = 10)
```

Arguments

font_family Font family to use. Defaults to "Helvetica".
font_size_title Font size for the title text. Defaults to 11.
font_size_body Font size for all text other than the title. Defaults to 10.

Value

A ggplot theme.

Examples

```
ggplot2::ggplot() +  
  theme_stars("Courier", 9, 7) +  
  ggplot2::ggtitle("This is a title of a selected font family and size")
```

theme_vbar	<i>Theme for vertical bar ggplots.</i>
------------	--

Description

Theme for vertical bar ggplots.

Usage

```
theme_vbar(font_family = "Helvetica", font_size_title = 11,  
           font_size_body = 10)
```

Arguments

font_family Font family to use. Defaults to "Helvetica".

font_size_title Font size for the title text. Defaults to 11.

font_size_body Font size for all text other than the title. Defaults to 10.

Value

A ggplot theme.

Examples

```
ggplot2::ggplot() +  
  theme_vbar("Courier", 9, 7) +  
  ggplot2::ggtitle("This is a title of a selected font family and size")
```

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