

Package ‘naijR’

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Type Package

Title Operations to Ease Data Analyses Specific to Nigeria

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Depends R (>= 3.6)

Imports RColorBrewer (>= 1.1.2), magrittr (>= 1.5), mapdata (>= 2.3.0), maps (>= 3.3.0), rgdal (>= 1.4.4), rlang (>= 0.4.0), tools (>= 3.6.3)

Suggests testthat, covr, readxl, knitr, rmarkdown

Description A set of convenience functions as well as geographical/political data about Nigeria, aimed at simplifying work with data and information that are specific to the country.

License GPL-3

LazyData TRUE

Encoding UTF-8

RoxygenNote 7.1.0

VignetteBuilder knitr

NeedsCompilation no

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| | |
|------------|---------------------------|
| fix_mobile | <i>Fix mobile numbers</i> |
|------------|---------------------------|

Description

Fixes up local mobile phone numbers to a uniform text format.

Usage

```
fix_mobile(x)
```

Arguments

x A character vector of numerical strings.

Details

This format is specific to that used in a given location - for now the function is useful only for Nigeria mobile numbers, which come in the format expressed by the regex pattern "`^0[7-9][0-1][0-9]{8}$`".

Value

The updated vector, usually the column of a data frame.

| | |
|----------|----------------------------------|
| is_state | <i>Test an Object for States</i> |
|----------|----------------------------------|

Description

Test an Object for States

Usage

```
is_state(x, test = c("all", "selected"), allow.na = TRUE)
```

Arguments

x A character vector to be tested.

test The type of test to be carried out - on the vector as a whole i.e. all (the default argument) or on the individual elements i.e. selected.

allow.na logical. If TRUE, all NAs are ignored in the result.

Value

A logical vector.

| | |
|---------|------------------------------------|
| lgas_ng | <i>List Local Government Areas</i> |
|---------|------------------------------------|

Description

List Local Government Areas

Usage

```
lgas_ng(ng.state = NA_character_)
```

Arguments

ng.state Character; State(s) in the Federation of Nigeria. Default is NA_character_.

Value

If length of ng.state == 1L, a character vector containing the names of Local Government Areas; otherwise a named list whose elements are character vectors of the LGAs in each state.

Examples

```
how_many_lgas <- function(state) {  
  require(naijR)  
  stopifnot(state %in% states())  
  cat(sprintf("No. of LGAs in %s State:", state),  
        length(lgas_ng(state)),  
        fill = TRUE)  
}  
how_many_lgas("Sokoto")  
how_many_lgas("Ekiti")
```

| | |
|--------------|------------------------------------------|
| lgas_nigeria | <i>Local Government Areas of Nigeria</i> |
|--------------|------------------------------------------|

Description

A dataset containing the 774 Local Government Areas of Nigeria

Usage

```
lgas_nigeria
```

Format

A dataframe with 774 rows and 2 columns

lga Local Government Area

state State of the Federation

map_ng

Map of Nigeria

Description

Maps of the Federal Republic of Nigeria that are based on the basic plotting idiom utilised by [maps:map](#) and its variants.

Usage

```
map_ng(
  region = character(),
  data = NULL,
  x = NULL,
  y = NULL,
  breaks = NULL,
  categories = NULL,
  col = NULL,
  fill = FALSE,
  title = NULL,
  caption = NULL,
  show.neighbours = FALSE,
  show.text = FALSE,
  leg.x = 13L,
  leg.y = 7L,
  leg.title,
  leg.orient = c("vertical", "horizontal"),
  ...
)
```

Arguments

| | |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| region | A character vector of a list of Nigerian States to be displayed. |
| data | An object containing data, principally the variables required to plotted in a map. |
| x | Numeric object or factor (or coercible to one). See <i>Details</i> . |
| y | Numeric. See <i>Details</i> |
| breaks | Numeric. A vector of length ≥ 1 . If a single value i.e. scalar, it denote the expected number of breaks. Internally, the function will attempt to compute appropriate category sizes or fail if out-of bounds. Where length is $\geq 3L$, it is expected to be an arithmetic sequence that represents category bounds as for cut (applicable only to choropleth maps). |

| | |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <code>categories</code> | The legend for the choropleth-plotted categories. If not defined, internally created labels are used. |
| <code>col</code> | Colour to be used for the plot. |
| <code>fill</code> | Logical. Whether to colour the plotted map region(s). When drawing a choropleth map <code>fill == TRUE</code> is implied. |
| <code>title</code> | Character vector of length 1. |
| <code>caption</code> | Character vector of length 1. |
| <code>show.neighbours</code> | Logical; TRUE to display borders of neighbouring countries. |
| <code>show.text</code> | Logical. Apply labels to the regions of the map. |
| <code>leg.x</code> | Numeric. Position of the legend. |
| <code>leg.y</code> | Numeric. Position of the legend. |
| <code>leg.title</code> | Character. The legend Title |
| <code>leg.orient</code> | The orientation of the legend i.e. whether horizontal or vertical. |
| <code>...</code> | Further arguments for function map |

Details

The default value for `region` is to print all States. `NULL` will print an outline map, i.e. without internal boundaries. `data` enables the extraction of data for plotting from an object of class `data.frame`. Columns containing States are identified. The argument also provided context for quasiquotation when providing the `x` and `y` arguments. For `x` and `y`, when both arguments are supplied, they are taken to be point coordinates and are plotted as such. If only `x` is supplied, it is presumed that the intention is to make a choropleth map, and thus, numeric vector arguments are converted into factors i.e. number classes. Otherwise factors or any object that can be coerced to a factor should be used. For plain plots, the `col` argument works the same as with [map](#) and variants. For choropleth maps, the colour provided represents a (sequential) colour palette based on [brewer.pal](#). The possible colour options can be checked with `getOption("choropleth.colours")` and this can also be modified by the user.

Value

An object of class `map`, invisibly; as a side-effect, results in the drawing of a map of Nigeria.

An object of class `maps` containing the data used to draw the map and which can be used for additional calls to [map](#) or other similar functions (e.g. [plot](#)).

Note

When adjusting the default colour choiced for choropleth maps, it is advisable to use one of the sequential palettes. For a list of of available palettes, especially for more advanced use, review [display.brewer.all](#)

Examples

```
map_ng() # Draw a map with default settings
map_ng(states("sw"))
map_ng("Kano")
```

states

Display States of the Federal Republic of Nigeria

Description

Display States of the Federal Republic of Nigeria

Usage

```
states(gpz = NULL, all = TRUE)
```

Arguments

| | |
|-----|-----------------------------------------------------------------------------------------------------|
| gpz | Geopolitical zone. Default is NULL; optionally "nc", "ne", "nw", "se", "ss" and "sw" (see Details). |
| all | logical; whether to include FCT in the result |

Details

gpz A geo-political zone, in the Nigerian context, is a national subdivision that groups contiguous states. Historically, they arise from subnational administrative divisions known as 'regions' that existed at the time of the country's independence. There are 6 zones - North-Central, North-East, North-West, South-East, South-South and South-West.

Value

The States of Nigeria as a whole or by zones, as a character vector

Examples

```
states() # lists names of all States
states("se") # lists States in South-East zone
```

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