

Package ‘liftr’

July 31, 2015

Type Package

Title Dockerize R Markdown Documents

Version 0.2

Date 2015-07-30

Maintainer Nan Xiao <nanx@uchicago.edu>

Description Dockerize R Markdown documents with support for Rabix.

License GPL

SystemRequirements Docker, Rabix

VignetteBuilder knitr

URL <http://liftr.me>

BugReports <https://github.com/road2stat/liftr/issues>

Depends R (>= 3.0.2)

Imports yaml, knitr, rmarkdown, stringr

NeedsCompilation no

Author Miaozhu Li [ctb],
Tengfei Yin [ctb],
Nan Xiao [aut, cre]

Repository CRAN

Date/Publication 2015-07-31 18:40:24

R topics documented:

liftr-package	2
drender	2
lift	3

Index	5
--------------	----------

 liftr-package

Dockerize R Markdown Documents

Description

liftr dockerizes your R Markdown documents.

Details

The vignette can be opened with `vignette('liftr-intro')`.

```
Package: liftr
Type: Package
License: GPL
```

Author(s)

Nan Xiao <<nanx@uchicago.edu>> Miao Zhu Li <<miaozhu.li@duke.edu>> Teng-Fei Yin <<tengfei.yin@sbgenomics.edu>>

 drender

Render Dockerized R Markdown Documents

Description

Render dockerized R Markdown documents using Docker containers. Rabix tools/workflows will be ran if there is a Rabixfile generated by [lift](#) under the same directory.

Usage

```
drender(input = NULL, tag = NULL, build_args = NULL,
        container_name = NULL, reset = TRUE, ...)
```

Arguments

<code>input</code>	Input file to render in Docker container.
<code>tag</code>	Docker image name to build, sent as docker argument <code>-t</code> . If not specified, it will use the same name as the input file.
<code>build_args</code>	A character string specifying additional docker build arguments. For example, <code>--pull=true -m="1024m" --memory-swap="-1"</code> .
<code>container_name</code>	Docker container name to run. If not specified, we will generate and use a random name.
<code>reset</code>	Should we cleanup the Docker container and Docker image after getting the rendered result?
<code>...</code>	Additional arguments passed to render .

Details

Before using `drender()`, run `lift` on the document first to generate Dockerfile. See `vignette('liftr-intro')` for details about the extended YAML front-matter metadata format and system requirements for rendering dockerized R Markdown documents.

Value

Rendered file is written to the same directory of the input file. A character vector with the image name and container name will be returned. You will be able to manage them with docker commands later if `reset = FALSE`.

Examples

```
# 1. Dockerized R Markdown document
# Docker is required to run the example,
# so make sure we can use `docker` in shell.
dir_docker = "~/liftr_docker/"
dir.create(dir_docker)
file.copy(system.file("docker.Rmd", package = "liftr"), dir_docker)
docker_input = paste0(dir_docker, "docker.Rmd")
lift(docker_input)
drender(docker_input)
# view rendered document
browseURL(paste0(dir_docker, "docker.html"))

# 2. Dockerized R Markdown document with Rabix options
# Docker and Rabix are required to run the example,
# so make sure we can use `docker` and `rabix` in shell.
dir_rabix = "~/liftr_rabix/"
dir.create(dir_rabix)
file.copy(system.file("rabix.Rmd", package = "liftr"), dir_rabix)
rabix_input = paste0(dir_rabix, "rabix.Rmd")
lift(rabix_input)
drender(rabix_input)
# view rendered document
browseURL(paste0(dir_rabix, "rabix.html"))
```

lift

Dockerize R Markdown Documents

Description

Generate Dockerfile for R Markdown documents. Rabix is supported if there is certain metadata in the R Markdown document: the function will generate a Rabixfile containing the parsed running parameters under the output directory.

Usage

```
lift(input = NULL, output_dir = NULL)
```

Arguments

input	Input (R Markdown) file.
output_dir	Directory to output Dockerfile. If not provided, will be the same directory as input.

Details

After running [lift](#), run [drender](#) on the document to render the Dockerized R Markdown document using Docker containers. See `vignette('liftr-intro')` for details about the extended YAML front-matter metadata format used by liftr.

Value

Dockerfile (and Rabixfile if possible).

Examples

```
# 1. Dockerized R Markdown document
dir_docker = paste0(tempdir(), '/liftr_docker/')
dir.create(dir_docker)
file.copy(system.file("docker.Rmd", package = "liftr"), dir_docker)
# use lift() to parse Rmd and generate Dockerfile
lift(paste0(dir_docker, "docker.Rmd"))
# view generated Dockerfile
readLines(paste0(dir_docker, "Dockerfile"))

# 2. Dockerized R Markdown document with Rabix options
dir_rabix = paste0(tempdir(), '/liftr_rabix/')
dir.create(dir_rabix)
file.copy(system.file("rabix.Rmd", package = "liftr"), dir_rabix)
lift(input = paste0(dir_rabix, "rabix.Rmd"))
# view generated Dockerfile
readLines(paste0(dir_rabix, "Dockerfile"))
# view generated Rabixfile
readLines(paste0(dir_rabix, "Rabixfile"))
```

Index

[drender](#), [2](#), [4](#)

[lift](#), [2](#), [3](#), [3](#), [4](#)

[liftr-package](#), [2](#)

[render](#), [2](#)