Package 'listdown'

July 27, 2020

Title Create R Markdown from Lists

Version 0.2.21

Description Programmatically create R Markdown documents from lists.

License Apache License (>= 2.0)

Encoding UTF-8

LazyData true

Depends R (>= 3.5.0)

Imports crayon, yaml

Suggests DT, ggplot2, testthat, purrr, rmarkdown, knitr

URL https://github.com/kaneplusplus/listdown

BugReports https://github.com/kaneplusplus/listdown/issues

RoxygenNote 7.1.1

VignetteBuilder knitr

NeedsCompilation no

Author Michael J. Kane [aut, cph, cre]
(<https://orcid.org/0000-0003-1899-6662>)

Maintainer Michael J. Kane <michael.kane@yale.edu>

Repository CRAN

Date/Publication 2020-07-27 18:00:02 UTC

R topics documented:

`as_ld_yml` *Turn a Computational Component List into YAML with Class Information*

Description

Create an object of type yaml::yml from a list of computational components. The function recursively descends into the list and when an element type is not a list the class information substituted for the object.

Usage

```
as_ld_yml(x)
```

Arguments

`x`	a named list of computational components.

Examples

```
if (require("ggplot2")) {

  cc_list <- list(
    Linear = ggplot(anscombe, aes(x = x1, y = y1)) + geom_point(),
   `Non Linear` = ggplot(anscombe, aes(x = x2, y = y2)) + geom_point(),
   `Outlier Vertical`= ggplot(anscombe, aes(x = x3, y = y3)) + geom_point(),
   `Outlier Horizontal` =  ggplot(anscombe, aes(x = x4, y = y4)) +
     geom_point())

  as_ld_yml(cc_list)
}
```

`ld_cc_dendro` *Show the list of Computational Components as a Dendrogram*

Description

This function creates text dendrograms from a list of computational components. It is useful for creating a dendrogram of the the computational components of a listdown object allowing the user to view the components hierarchically.

Usage

```
ld_cc_dendro(x)
```

Arguments

x	a named list of computational components

Examples

```
if (require("ggplot2")) {

  cc_list <- list(
    Linear = ggplot(anscombe, aes(x = x1, y = y1)) + geom_point(),
   `Non Linear` = ggplot(anscombe, aes(x = x2, y = y2)) + geom_point(),
   `Outlier Vertical`= ggplot(anscombe, aes(x = x3, y = y3)) + geom_point(),
   `Outlier Horizontal` =  ggplot(anscombe, aes(x = x4, y = y4)) +
     geom_point())

  ld_cc_dendro(cc_list)
}
```

---

ld_chunk_opts *Apply Chunk Options to a Presentation Object*

Description

This function allows the user to set chunk options for individual elements of a presentation list.

Usage

```
ld_chunk_opts(pres_obj, chunk_name = NULL, ..., chunk_opts = NULL)
```

Arguments

pres_obj	the presentation list element whose chunk options should be modified.
chunk_name	the name of the chunk. By default this is NULL, corresponding to no chunk name.
...	named chunk options and their values.
chunk_opts	list of chunk options can be specified. Takes priority over arguments provided to ...

ld_make_chunks *Write a listdown Object to a String*

Description

After a presentation list and listdown object have been constructed the chunks can be rendered to a string, which can be appended to a file, with appropriate headers, resulting in a compilable R Markdown document.

Usage

```
ld_make_chunks(ld)
```

Arguments

ld	the listdown object that provides information on how a presentation object should be displayed in the output.

See Also

listdown

ld_rmarkdown_header *Create an R Markdown Header*

Description

Output an R Markdown header with specified parameters.

Usage

```
ld_rmarkdown_header(
  title,
  author = NULL,
  date = NULL,
  output = c("html_document", "pdf_document", "word_document")
)
```

Arguments

title	the title of the page.
author	the author of the page. The default is NULL - no author.
date	the date for the page. The default is NULL - no date.
output	the output format of the page. If NULL then no output format. The default is an html document.

ld_workflowr_header *Create a workflowr Header*

Description

Output a workflowr R Markdown header with specified title.

Usage

```
ld_workflowr_header(title, toc = FALSE)
```

Arguments

title	the title of the page.
toc	should the table of contents be generated? Default FALSE.

ld_write_file *Write to an R Markdown File*

Description

This function takes header information and a listdown object and writes to a specified file.

Usage

```
ld_write_file(rmd_header, ld, file_name)
```

Arguments

rmd_header	either a character or listdown_header with R Markdown header information.
ld	the listdown object that provides information on how a presentation object should be displayed in the output.
file_name	the output file to write to.

`listdown` *Create a listdown Object*

Description

A listdown object provides information for how a presentation list should be used to create an R Markdown document. It requires an unquoted expression indicating how the presentation list will be loaded. In addition, libraries required by the outputted document and other parameters can be specified.

Usage

```
listdown(
  load_cc_expr,
  package = NULL,
  decorator = list(),
  init_expr = NULL,
  decorator_chunk_opts = list(),
  default_decorator = identity,
  ...,
  chunk_opts = NULL
)
```

Arguments

`load_cc_expr`	either an unquoted expression or a character string that will be turned into an unquoted expression via str2lang to load the presentation list.
`package`	a quoted list of package required by the outputted document.
`decorator`	a named list mapping the potential types of list elements to a decorator function.
`init_expr`	an initial expression that will be added to the outputted document after the libraries have been called.
`decorator_chunk_opts`	a named list mapping the potential types of list elements to chunk options that should be included for those types.
`default_decorator`	the decorator to use for list elements whose type is not inherited from the decorator list. If NULL then the those elements will not be included when the chunks are written. By default this is identity, meaning that the elements will be passed directly (through the identity() function).
`...`	default options sent to the chunks of the outputted document.
`chunk_opts`	a named list of options sent to the chunks of outputted documents. Note: takes priority over argument provided to ...

Index