Package 'TileMaker'

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Type Package

Title Create Tiles Suitable For Html Dashboards

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Description This uses Bootstrap v3 buttons to create pretty single-data-
point tiles for dashboards. Acts as an alternative to infoBox and valueBox.

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LazyData TRUE

RoxygenNote 6.1.1

BugReports https://github.com/mexindian/TileMaker/issues

URL https://github.com/mexindian/TileMaker

Imports htmltools, purrr, dplyr, rlang

Suggests testthat, knitr, rmarkdown, ggplot2

VignetteBuilder knitr

R topics documented:

ButtonMaker	*ButtonMaker*

Description

This function crafts the actual button per se, including the specific aesthetic traits for each button

Usage

```
ButtonMaker(Color = 1, Size = 4, Value, Subtitle = "", Link = "",
  Icon = "", Units = "", Target = 0, ThresholdHigh = 0,
  ThresholdLow = 0, Hover = "", alpha = 0.5, Former = Value)
```

Arguments

Color	Optional numeric 1-6, corresponding to the colors specified in the bootstrap css classes: \"success\", \"warning\", \"danger\", \"info\", \"primary\", \"default\"
Size	Optional numeric 1-4, corresponding to the sizes specified in the bootstrap css classes: \"xs\",\"sm\",\"md\",\"lg\")
Value	The numeric value you want to highlight (the main enchilada)
Subtitle	Optional subtext that should appear under the value
Link	Optional hyperlink that should be followed on click
Icon	Optional glyphicon that should be displayed from http://getbootstrap.com/components/
Units	Optional units that should be displayed after Value
Target	Optional target that the value should be compared against. Use with Threshold-High and THresholdLow
ThresholdHigh	Optional border between \"green\" and \"orange\". Use w/ Target and ThresholdLow. This value represents the RATIO of the VALUE to the TARGET that, if above the ThresholdHigh will show as green, and if not, as orange
ThresholdLow	Optional border between \"orange\" and \"red\". Use w/ Target and Threshold-Low. This value represents the RATIO of the VALUE to the TARGET that, if above the ThresholdHigh will show as orange, and if not, as red
Hover	Optional tooltip, or text that will show up when a user rests their mouse over the button.
alpha	Optional transparency coefficient for the icon, a decimal from 0-1.
Former	Optional value to compare against the current value. Will show up as a little arrow pointig the percent change

Value

Returns a character string containing HTML code to show the button, assuming the appropriate CSS elements will be available downstream

Examples

```
# ADD EXAMPLES HERE
# Button1 <- ButtonMaker(Color = 2,Value = 3.57,Subtitle = "B")
# Button2 <- ButtonMaker(Color = 3,Value = 13.7,Subtitle = "Nutritional value")
# Button3 <- ButtonMaker(Color = 4,Value = 1,Subtitle = "Yumminess factor")
# Button1;Button2;Button3
```

DivMaker *DivMaker*

Description

This function takes strings created with the function 'ButtonMaker' and makes an HTML div suitable for inclusion in other HTML code, or for inclusion within the function of this package 'TileMaker'.

Usage

```
DivMaker(Title = "", Buttons)
```

Arguments

Title   The title for this row of buttons

Buttons   The Buttons that you want inserted into this row. If you have more than one
               button, use paste(Button1,Button2)

Value

Returns an HTML string containing \"div\" elements. Beware of using these in Shiny... a it might
break the container.

Examples

```
# ADD EXAMPLES HERE
Button1 <- ButtonMaker(Color = 2,Value = 3.57,Subtitle = "B")
Button2 <- ButtonMaker(Color = 3,Value = 13.7,Subtitle = "Nutritional value")
DivMaker(Title = "Quantativity factors",Buttons = paste(Button1,Button2))
```

---

div_maker *Div maker*

Description

This function takes buttons made by any of the solo or multi buttons and makes an a row (HTML
'div') suitable for inclusion in other HTML code, or for inclusion within the function of this package
'finisher'.

Usage

```
div_maker(subtitle = NULL, textModifier = "h1", ...)
```

Arguments

subtitle   The text heading of this row of buttons

textModifier   Optional css category of "large" text. In this case, subtitle. Use css flags like
               "h2", "h3","p", etc. Default = "h1"

...   buttons to insert into the div elements.

Examples

```
div_maker(subtitle = "Quantativity factors",textModifier = "h1",
          solo_gradient_box(value = 70),
          solo_box(value = 34))
```

---

finisher	*finisher*

Description

Function 3 of 3, the last step. This function grabs the Divs created by 'DivMaker', or individual buttons if so desired, and combines them into a freestanding html file. Use this when you don't want the buttons to be part of a file, but a file itself. or, you could also use this as a convenient way of wrapping up buttons without using a div (although it is a bit irregular).

Usage

```
finisher(title = NULL,
  css = "https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css",
   file = NULL, textModifier = "h1", ...)
```

Arguments

title	Title. Default NULL
css	A string indicating css url, for final installations pls save the css file locally. By default we are using the 3.3.7 bootstrap CDN because they support icons, but some others that might be interesting to you are: https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css or https://bootswatch.com/4/flatly/bootstrap.css
file	Optional filename if you desire to save the file.
textModifier	Optional css category of "large" text. In this case, title. Default=h1
...	div_maker elements (or individual buttons).

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ico	*ico*

Description

Auxiliary function to generate icons

Usage

```
ico(x, chevron = FALSE)
```

Arguments

x	Icon name. See http://getbootstrap.com/components/
chevron	binary to denote whether there is a former value to compare against or not.

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multi_box   *multi_box*

Description

Create a tile that contains more than one value, icon and text

Usage

```
multi_box(icons = NULL, txt = NULL, values = NULL, title = NULL,
  size = "md", type = "info", link = NULL, number_zoom = 150,
  hover = NULL, ...)
```

Arguments

icons	vector of Icons to display, Default: NULL
txt	Optional subtext that should appear under the value
values	vector of values to display, Default: NULL
title	Top title, Default: NULL
size	Optional size specified in the bootstrap css classes: "xs","sm","md","lg")
type	Optional bootstrap css element that governs the color. https://v4-alpha.getbootstrap.com/utilities/colo Choose from: "Muted", "Primary", "Success", "Info", "Warning", "Danger", Default: 'info'
link	Optional hyperlink to redirect to after a user click, Default: NULL
number_zoom	Optional magnification % for number vs normal text, Default: 150
hover	Optional tooltip, or text that will show up when a user rests their mouse over the tile, Default: NULL
...	add any other html code here

Details

Allows for each button to contain several icon-number-text descriptions.

Value

an HTML object

Examples

```
library(dplyr)
multi_box(values = c(3,45), title = "Important <br>button",
        number_zoom = 300, icons = c("apple","calendar"), type = "warning",
        txt = c("times","reports")) %>%
 finisher
## Not run:
if(interactive()){
 #EXAMPLE1
 }

## End(Not run)
```

---

solo_box   *solo_box*

Description

This function crafts the actual tile per se, including the specific aesthetic traits for each tile. This is
the simple version where you explicitly state the color.

Usage

```
solo_box(value = NULL, txt = NULL, former = NULL, size = "md",
  icon = NULL, type = "info", link = NULL, units = NULL,
  hover = NULL, textModifier = "h1", ...)
```

Arguments

value	The numeric value you want to highlight (the main enchilada)
txt	Optional subtext that should appear under the value
former	The numeric old value to use for comparison to 'value'
size	Optional size specified in the bootstrap css classes: "xs","sm","md","lg")
icon	Optional glyphicon that should be displayed from http://getbootstrap.com/components/ you need only supply the name of thing you want, like "check"... not the full "gyphicon-check"
type	Optional bootstrap css element that governs the color. https://v4-alpha.getbootstrap.com/utilities/colo Choose from: "Muted", "Primary", "Success", "Info", "Warning", "Danger"
link	Optional hyperlink that should be followed on click
units	Optional units that should be displayed after Value
hover	Optional tooltip, or text that will show up when a user rests their mouse over the tile.
textModifier	Optional css category of "large" text. In this case, the icon, value and unit. In this case, title. Default=h1
...	Optional additional html elements

Examples

```
b1 <- solo_box(type="warning",value = 3.57,txt = "B")
b2 <- solo_box(type="danger",value = 13.7,txt = "Nutritional value")
b3 <- solo_box(type="success",value = 1,txt = "Yumminess factor")
b4 <- solo_box(value = 3.57, former=3,txt = "Times apple eaten", icon = "apple")
finisher(title = "straight buttons", b1)
finisher(title = "with divs",
         div_maker(subtitle = "boom",textModifier = "h1",b1,b2,b3))

## Or taking advantage of the ability to change the textModifier:
finisher(title = "h4 modifier", solo_box(value = 3,txt="uh huh",former = 2,textModifier = "h4"))
```

solo_gradient_box *solo_gradient_box*

Description

This function crafts a tile like solo_box, but this one changes color according to value

Usage

```
solo_gradient_box(value = NULL, txt = NULL, former = NULL,
  size = "md", icon = NULL, target = 100, thresholdHigh = 90,
  thresholdLow = 50, link = NULL, units = NULL, hover = NULL,
  hide_value = FALSE, textModifier = "h1", ...)
```

Arguments

value	The numeric value you want to highlight (the main enchilada)
txt	Optional subtext that should appear under the value
former	The last value that should be used for comparison purposes
size	Optional size specified in the bootstrap css classes: "xs","sm","md","lg")
icon	Optional glyphicon that should be displayed from http://getbootstrap.com/components/ you need only supply the name of thing you want, like "check"... not the full "gyphicon-check"
target	Optional target that the value should be compared against. Use with Threshold-High and THresholdLow
thresholdHigh	Optional edge between \"green\" and \"orange\" from 0-100 as a percent of target. IE, this value represents the RATIO of the VALUE to the target that, if above or equal to the ThresholdHigh will show as green, and if not, as orange. Use w/ target and ThresholdLow.
thresholdLow	Optional border between \"orange\" and \"red\" from 0-100 as a percent of target. IE, this value represents the RATIO of the VALUE to the target that, if above or equal to the ThresholdLow will show as orange, and if not, as red. Use w/ target and ThresholdHigh.
link	Optional hyperlink that should be followed on click
units	Optional units that should be displayed after Value
hover	Optional tooltip, or text that will show up when a user rests their mouse over the tile.
hide_value	Optionally and paradoxically hide value. Normally FALSE, change this value to TRUE in order to suppress the large number, but still take advantage of the conditional formatting.
textModifier	Optional css category of "large" text. In this case, the icon, value and unit. Default=h1
...	Optional additional html elements

Examples

```
# ADD EXAMPLES HERE
g1 <- solo_gradient_box(value = 40)
g2 <- solo_gradient_box(value = 40,target = 50,
thresholdHigh = 80, thresholdLow=60)
g3 <- solo_gradient_box(value = 20,txt="Test1",target = 50,
thresholdHigh = 80, thresholdLow=60,hide_value=TRUE)
g4 <- solo_gradient_box(value = 35,txt="Test2",target = 50,
thresholdHigh = 80, thresholdLow=60,hide_value=TRUE)
finisher(title = "Item", div_maker(subtitle = "subitems",textModifier = "h1",g1,g2,g3,g4))
```

TileMaker   *TileMaker*

Description

Function 3 of 3, the last step. This function grabs the Divs created by 'DivMaker' and combines them into an html file.

Usage

```
TileMaker(MainTitle = "", Divs, FileName = "x", ShowDate = FALSE,
  localCSS = FALSE)
```

Arguments

MainTitle	Optional title for the whole set of titles
Divs	The Divs that you want inserted into the tile. If you have more than one div, use 'paste(Div1,Div2)'
FileName	The filename the tile should spit out as, including the extension (which should always be html)
ShowDate	Optional boolean controlling whether the date should be included or suppressed
localCSS	Optional boolean to specify whether the bootstrap css file should be served from the internet, or if you have saved a local version. If you have saved a local version, make sure to download the "fonts" folder too, otherwise glyphicons won't work.

Value

Use this function to output an html file containing all the divs.If you would like just HTML code (suitable for inserting in a dashboard or another document, you can use the Divs.

References

Uses Twitter's awesome bootstrap V3

Examples

```
# ADD EXAMPLES HERE
Button1 <- ButtonMaker(Color = 2,Value = 3.57,Subtitle = "B")
Button2 <- ButtonMaker(Color = 3,Value = 13.7,Subtitle = "Nutritional value")
Div1 <- DivMaker(Title = "Quantativity factors",Buttons = paste(Button1,Button2))
Div2 <- DivMaker(Title = "Inverse proportions",Buttons = paste(Button2,Button1))
TileMaker(MainTitle = "Hello",Divs = paste(Div1,Div2),FileName = "example.html")
TileMaker(MainTitle = "Hello",Divs = paste(Div1,Div2))
browseURL("example.html")
```

---

tile_matrix	*tileMatrix*

Description

Create a matrix of buttons suitable for quick comparisons

Usage

```
tile_matrix(data, values, txt, icon, former, target = 100,
  thresholdHigh = 90, thresholdLow = 50, cols = 4, title = NULL,
  roundVal = 1, textModifier = "h1")
```

Arguments

data	a dataframe containing the data you would like to plot
values	a Vector containing values for each tile, contained in the datframe 'data'
txt	Vector containing titles for each tile, contained in the datframe 'data'
icon	Optional glyphicon that should be displayed from http://getbootstrap.com/components/ you need only supply the name of thing you want, like "check"... not the full "gyphicon-check"
former	optional vector containing former values (to show change from last), contained in the datframe 'data'
target	Optional target that the value should be compared against. Use with ThresholdHigh and THresholdLow
thresholdHigh	Optional edge between \"green\" and \"orange\" from 0-100 as a percent of target. IE, this value represents the RATIO of the VALUE to the target that, if above or equal to the ThresholdHigh will show as green, and if not, as orange. Use w/ target and ThresholdLow.
thresholdLow	Optional border between \"orange\" and \"red\" from 0-100 as a percent of target. IE, this value represents the RATIO of the VALUE to the target that, if above or equal to the ThresholdLow will show as orange, and if not, as red. Use w/ target and ThresholdHigh.
cols	Number of columns that the matrix should tile around. Defaults to 4
title	The title the matrix should have.
roundVal	Number of decimals that Value will be rounded to. Defaults to 1
textModifier	Optional css category of "large" text. In this case, the icon, value and unit. Default=h1

Value

Returns a list object containing the matrix of buttons

Examples

```
finisher(title = "Tile Matrix", tile_matrix(data = head(iris),
                                             values = Sepal.Length,
                                             txt = Species))
```

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