Package 'RLumShiny'

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Description A collection of 'shiny' applications for the R package
'Luminescence'. These mainly, but not exclusively, include applications for
plotting chronometric data from e.g. luminescence or radiocarbon dating. It
further provides access to bootstraps tooltip and popover functionality and
contains the 'jscolor.js' library with a custom 'shiny' output binding.

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URL <https://tzerk.github.io/RLumShiny/>

BugReports <https://github.com/tzerk/RLumShiny/issues>

Collate 'app_RLum.R' 'addin.R' 'chooser.R' 'jscolor.R' 'tooltip.R'
'popover.R' 'RLumShiny.R' 'module_aboutTab.R'
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RLumShiny-package   *Shiny Applications for the R Package Luminescence*

Description

A collection of shiny applications for the R package Luminescence. These mainly, but not exclusively, include applications for plotting chronometric data from e.g. luminescence or radiocarbon dating. It further provides access to bootstraps tooltip and popover functionality as well as a binding to JSColor.

Details

In addition to its main purpose of providing convenient access to the Luminescence shiny applications (see `app_RLum`) this package also provides further functions to extend the functionality of shiny. From the Bootstrap framework the JavaScript tooltip and popover components can be added to any shiny application via `tooltip` and `popover`. It further provides a custom input binding to the JavaScript/HTML color picker JSColor. Offering access to most options provided by the JSColor API the function `jscolorInput` is easily implemented in a shiny app. RGB colors are returned as hex values and can be directly used in R's base plotting functions without the need of any format conversion.

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app_RLum   *Run Luminescence shiny apps*

Description

A wrapper for `runApp` to start interactive shiny apps for the R package Luminescence.

Usage

```
app_RLum(app = NULL, ...)
```

Arguments

app	`character` (**required**): name of the application to start. See details for a list of available apps.
...	further arguments to pass to `runApp`

Details

The RLumShiny package provides a single function from which all shiny apps can be started: app_RLum(). It essentially only takes one argument, which is a unique keyword specifying which application to start. See the table below for a list of available shiny apps and which keywords to use. If no keyword is used a dashboard will be started instead, from which an application can be started.

Application name:	Keyword:	Function:
Abanico Plot	*abanico*	plot_AbanicoPlot
Histogram	*histogram*	plot_Histogram
Kernel Density Estimate Plot	*KDE*	plot_KDE
Radial Plot	*radialplot*	plot_RadialPlot
Dose Recovery Test	*doserecovery*	plot_DRTResults
Cosmic Dose Rate	*cosmicdose*	calc_CosmicDoseRate
CW Curve Transformation	*transformCW*	CW2pHMi, CW2pLM, CW2pLMi, CW2pPMi
Filter Combinations	*filter*	plot_FilterCombinations
Fast Ratio	*fastratio*	calc_FastRatio
Fading Correction	*fading*	analyse_FadingMeasurement, calc_FadingCorr
Test Stimulation Power	*teststimulationpower*	plot_RLum
Scale Gamma Dose Rate	*scalegamma*	scale_GammaDose
RCarb app	*RCarb*	RCarb::model_DoseRate

The app_RLum() function is just a wrapper for runApp. Via the ... argument further arguments can be directly passed to runApp. See ?shiny::runApp for further details on valid arguments.

Author(s)

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See Also

runApp

Examples

```
## Not run:
# Dashboard
app_RLum()

# Plotting apps
app_RLum("abanico")
app_RLum("histogram")
app_RLum("KDE")
app_RLum("radialplot")
app_RLum("doserecovery")

# Further apps
app_RLum("cosmicdose")
app_RLum("transformCW")
app_RLum("filter")
app_RLum("fastratio")
app_RLum("fading")
app_RLum("surfaceexposure")
app_RLum("teststimulationpower")
```

```
app_RLum("scalegamma")
app_RLum("RCarb")

## End(Not run)
```

---

jscolorInput   *Create a JSColor picker input widget*

Description

Creates a JSColor (Javascript/HTML Color Picker) widget to be used in shiny applications.

Usage

```
jscolorInput(
  inputId,
  label,
  value,
  position = "bottom",
  color = "transparent",
  mode = "HSV",
  slider = TRUE,
  close = FALSE
)
```

Arguments

inputId	[character](#) (**required**): Specifies the input slot that will be used to access the value.
label	[character](#) (*optional*): Display label for the control, or NULL for no label.
value	[character](#) (*optional*): Initial RGB value of the color picker. Default is black ('#000000').
position	[character](#) (*with default*): Position of the picker relative to the text input ('bottom', 'left', 'top', 'right').
color	[character](#) (*with default*): Picker color scheme ('transparent' by default). Use RGB color coding ('000000').
mode	[character](#) (*with default*): Mode of hue, saturation and value. Can either be 'HSV' or 'HVS'.
slider	[logical](#) (*with default*): Show or hide the slider.
close	[logical](#) (*with default*): Show or hide a close button.

See Also

Other input.elements: [animationOptions](#), [sliderInput](#); [checkboxGroupInput](#); [checkboxInput](#); [dateInput](#); [dateRangeInput](#); [fileInput](#); [numericInput](#); [passwordInput](#); [radioButtons](#); [selectInput](#), [selectizeInput](#); [submitButton](#); [textInput](#)

Examples

```
# html code
jscolorInput("col", "Color", "21BF6B", slider = FALSE)

# example app
## Not run:
shinyApp(
ui = fluidPage(
  jscolorInput(inputId = "col", label = "JSColor Picker",
               value = "21BF6B", position = "right",
               mode = "HVS", close = TRUE),
  plotOutput("plot")
),
server = function(input, output) {
  output$plot <- renderPlot({
    plot(cars, col = input$col, cex = 2, pch = 16)
 })
})

## End(Not run)
```

---

popover   *Create a bootstrap button with popover*

Description

Add small overlays of content for housing secondary information.

Usage

```
popover(
  title,
  content,
  header = NULL,
  html = TRUE,
  class = "btn btn-default",
  placement = c("right", "top", "left", "bottom"),
  trigger = c("click", "hover", "focus", "manual")
)
```

Arguments

title	[character](#) (**required**): Title of the button.
content	[character](#) (**required**): Text to be displayed in the popover.
header	[character](#) (*optional*): Optional header in the popover.
html	[logical](#) (*with default*): Insert HTML into the popover.
class	[logical](#) (*with default*): Bootstrap button class (e.g. "btn btn-danger").
placement	[character](#) (*with default*): How to position the popover - top | bottom | left | right | auto. When "auto" is specified, it will dynamically reorient the popover. For example, if placement is "auto left", the popover will display to the left when possible, otherwise it will display right.

trigger   [character](color) (*with default*): How popover is triggered - click | hover | focus |
                   manual.

Examples

```
# html code
popover("title", "Some content")

# example app
## Not run:
shinyApp(
ui = fluidPage(
  jscolorInput(inputId = "col", label = "JSColor Picker",
               value = "21BF6B", position = "right",
               mode = "HVS", close = TRUE),
  popover(title = "Help!", content = "Call 911"),
  plotOutput("plot")
),
server = function(input, output) {
  output$plot <- renderPlot({
    plot(cars, col = input$col, cex = 2, pch = 16)
 })
})

## End(Not run)
```

RLumShinyAddin   *RLumShiny Dashboard Addin*

Description

RLumShiny dashboard

Usage

```
RLumShinyAddin()
```

---

tooltip   *Create a bootstrap tooltip*

Description

Create bootstrap tooltips for any HTML element to be used in shiny applications.

Usage

```
tooltip(
  refId,
  text,
  attr = NULL,
  animation = TRUE,
  delay = 100,
  html = TRUE,
  placement = "auto",
  trigger = "hover"
)
```

Arguments

refId	[character](#) (**required**): id of the element the tooltip is to be attached to.
text	[character](#) (**required**): Text to be displayed in the tooltip.
attr	[character](#) (*optional*): Attach tooltip to all elements with attribute `attr='refId'`.
animation	[logical](#) (*with default*): Apply a CSS fade transition to the tooltip.
delay	[numeric](#) (*with default*): Delay showing and hiding the tooltip (ms).
html	[logical](#) (*with default*): Insert HTML into the tooltip.
placement	[character](#) (*with default*): How to position the tooltip - `top` | `bottom` | `left` | `right` | `auto`. When 'auto' is specified, it will dynamically reorient the tooltip. For example, if placement is 'auto left', the tooltip will display to the left when possible, otherwise it will display right.
trigger	[character](#) (*with default*): How tooltip is triggered - `click` | `hover` | `focus` | `manual`. You may pass multiple triggers; separate them with a space.

Examples

```
# javascript code
tt <- tooltip("elementId", "This is a tooltip.")
str(tt)

# example app
## Not run:
shinyApp(
ui = fluidPage(
  jscolorInput(inputId = "col", label = "JSColor Picker",
               value = "21BF6B", position = "right",
               mode = "HVS", close = TRUE),
  tooltip("col", "This is a JScolor widget"),

  checkboxInput("cbox", "Checkbox", FALSE),
  tooltip("cbox", "This is a checkbox"),

  checkboxGroupInput("cboxg", "Checkbox group", selected = "a",
                     choices = c("a" = "a",
                                 "b" = "b",
                                 "c" = "c")),
  tooltip("cboxg", "This is a <b>checkbox group</b>", html = TRUE),

  selectInput("select", "Selectinput", selected = "a", choices = c("a"="a", "b"="b")),
```

```
    tooltip("select", "This is a text input field", attr = "for", placement = "right"),

    passwordInput("pwIn", "Passwordinput"),
    tooltip("pwIn", "This is a password input field"),

    plotOutput("plot")
  ),
  server = function(input, output) {
    output$plot <- renderPlot({
      plot(cars, col = input$col, cex = 2, pch = 16)
   })
  })

## End(Not run)
```

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