# Function reference version 0.13.0

# **UI** Layout

wellPanel (wellPanel.html)

Functions for laying out the user interface for your application.

, ,	
<pre>absolutePanel (absolutePanel.html) (fixedPanel)</pre>	Panel with absolute positioning
<pre>bootstrapPage (bootstrapPage.html) (basicPage)</pre>	Create a Bootstrap page
column (column.html)	Create a column within a UI definition
<pre>conditionalPanel (conditionalPanel.html)</pre>	Conditional Panel
fillPage (fillPage.html)	Create a page that fills the window
<pre>fillRow (fillRow.html) (fillCol)</pre>	Flex Box-based row/column layouts
<pre>fixedPage (fixedPage.html) (fixedRow)</pre>	Create a page with a fixed layout
<pre>fluidPage (fluidPage.html) (fluidRow)</pre>	Create a page with fluid layout
headerPanel (headerPanel.html)	Create a header panel
helpText (helpText.html)	Create a help text element
icon (icon.html)	Create an icon
mainPanel (mainPanel.html)	Create a main panel
<pre>navbarPage (navbarPage.html) (navbarMenu)</pre>	Create a page with a top level navigation bar
<pre>navlistPanel (navlistPanel.html)</pre>	Create a navigation list panel
<pre>pageWithSidebar (pageWithSidebar.html)</pre>	Create a page with a sidebar
<pre>sidebarLayout (sidebarLayout.html)</pre>	Layout a sidebar and main area
<pre>sidebarPanel (sidebarPanel.html)</pre>	Create a sidebar panel
tabPanel (tabPanel.html)	Create a tab panel
tabsetPanel (tabsetPanel.html)	Create a tabset panel
titlePanel (titlePanel.html)	Create a panel containing an application title.
<pre>inputPanel (inputPanel.html)</pre>	Input panel
<pre>flowLayout.html)</pre>	Flow layout
<pre>splitLayout (splitLayout.html)</pre>	Split layout
<pre>verticalLayout (verticalLayout.html)</pre>	Lay out UI elements vertically

Create a well panel

Change the value of a slider input on the client

(updateSelectInput.html)
(updateSelectizeInput)

updateSliderInput

## **UI** Inputs

Functions for creating user interface elements that prompt the user for input values or interaction.

actionButton (actionButton.html) Action button/link (actionLink) checkboxGroupInput Checkbox Group Input Control (checkboxGroupInput.html) checkboxInput (checkboxInput.html) Checkbox Input Control dateInput (dateInput.html) Create date input dateRangeInput (dateRangeInput.html) Create date range input fileInput (fileInput.html) File Upload Control numericInput (numericInput.html) Create a numeric input control radioButtons (radioButtons.html) Create radio buttons selectInput (selectInput.html) Create a select list input control (selectizeInput) Slider Input Widget sliderInput (sliderInput.html) (animationOptions) submitButton (submitButton.html) Create a submit button textInput (textInput.html) Create a text input control passwordInput (passwordInput.html) Create a password input control updateCheckboxGroupInput Change the value of a checkbox group input on the (updateCheckboxGroupInput.html) client updateCheckboxInput Change the value of a checkbox input on the client (updateCheckboxInput.html) updateDateInput Change the value of a date input on the client (updateDateInput.html) updateDateRangeInput Change the start and end values of a date range input on (updateDateRangeInput.html) the client Change the value of a number input on the client updateNumericInput (updateNumericInput.html) updateRadioButtons Change the value of a radio input on the client (updateRadioButtons.html) updateSelectInput Change the value of a select input on the client

```
updateTabsetPanel
(updateTabsetPanel.html)
(updateNavbarPage,
updateNavlistPanel)

updateTextInput
(updateTextInput,html)
Change the selected tab on the client

Change the value of a text input on the client
```

### **UI** Outputs

Functions for creating user interface elements that, in conjunction with rendering functions, display different kinds of output from your application.

```
htmlOutput (htmlOutput.html)
                                                Create an HTML output element
(uiOutput)
plotOutput (plotOutput.html)
                                                 Create an plot or image output element
(imageOutput)
outputOptions (outputOptions.html)
                                                Set options for an output object.
tableOutput (tableOutput.html)
                                                Create a table output element
(dataTableOutput)
                                                Create a text output element
textOutput (textOutput.html)
verbatimTextOutput
                                                 Create a verbatim text output element
(verbatimTextOutput.html)
downloadButton (downloadButton.html)
                                                Create a download button or link
(downloadLink)
Progress (Progress.html)
                                                 Reporting progress (object-oriented API)
withProgress (withProgress.html)
                                                 Reporting progress (functional API)
(incProgress, setProgress)
```

#### Interface builder functions

A sub-library for writing HTML using R functions. These functions form the foundation on which the higher level user interface functions are built, and can also be used in your Shiny UI to provide custom HTML, CSS, and JavaScript.

(1s.singleton)	
<pre>tag (tag.html) (tagAppendAttributes, tagAppendChild, tagAppendChildren, tagList, tagSetChildren)</pre>	HTML Tag Object
<pre>validateCssUnit (validateCssUnit.html)</pre>	Validate proper CSS formatting of a unit
<pre>withTags (withTags.html)</pre>	Evaluate an expression using
<pre>htmlTemplate (htmlTemplate.html)</pre>	Process an HTML template
<pre>bootstrapLib (bootstrapLib.html)</pre>	Bootstrap libraries
<pre>suppressDependencies (suppressDependencies.html)</pre>	Suppress web dependencies

# Rendering functions

Functions that you use in your application's server side code, assigning them to outputs that appear in your user interface.

<pre>renderPlot (renderPlot.html)</pre>	Plot Output
<pre>renderText (renderText.html)</pre>	Text Output
<pre>renderPrint (renderPrint.html)</pre>	Printable Output
<pre>renderDataTable (renderDataTable.html)</pre>	Table output with the JavaScript library DataTables
<pre>renderImage (renderImage.html)</pre>	Image file output
<pre>renderTable (renderTable.html)</pre>	Table Output
renderUI (renderUI.html)	UI Output
<pre>downloadHandler (downloadHandler.html)</pre>	File Downloads
<pre>reactivePlot (reactivePlot.html)</pre>	Plot output (deprecated)
<pre>reactivePrint (reactivePrint.html)</pre>	Print output (deprecated)
<pre>reactiveTable (reactiveTable.html)</pre>	Table output (deprecated)
<pre>reactiveText (reactiveText.html)</pre>	Text output (deprecated)
reactiveUI (reactiveUI.html)	UI output (deprecated)

### Reactive constructs

A sub-library that provides reactive programming facilities for R.

invalidateLater
(invalidateLater html)

Scheduled Invalidation

( IIIvat TuateLater . IItilit) is.reactivevalues Checks whether an object is a reactivevalues object (is.reactivevalues.html) isolate (isolate.html) Create a non-reactive scope for an expression Make a reactive variable makeReactiveBinding (makeReactiveBinding.html) observe (observe.html) Create a reactive observer observeEvent (observeEvent.html) Event handler (eventReactive) reactive (reactive.html) Create a reactive expression (is.reactive) reactiveFileReader Reactive file reader (reactiveFileReader.html) reactivePoll (reactivePoll.html) Reactive polling reactiveTimer (reactiveTimer.html) Timer reactiveValues (reactiveValues.html) Create an object for storing reactive values reactiveValuesToList Convert a reactive values object to a list (reactiveValuesToList.html) Reactive domains domains (domains.html)

Reactive Log Visualizer

# Boilerplate

(getDefaultReactiveDomain,

showReactLog (showReactLog.html)

onReactiveDomainEnded,

withReactiveDomain)

Functions that are required boilerplate in ui.R and server.R.

shinyUI (shinyUI.html)Create a Shiny UI handlershinyServer (shinyServer.html)Define Server Functionality

# Running

Functions that are used to run or stop Shiny applications.

<pre>runApp (runApp.html)</pre>	Run Shiny Application
<pre>runGadget (runGadget.html)</pre>	Run a gadget
<pre>runExample.html)</pre>	Run Shiny Example Applications
<pre>runGadget.html)</pre>	Run a gadget
<pre>runUrl (runUrl.html) (runGist, runGitHub)</pre>	Run a Shiny application from a URL

stopApp (stopApp.html) Stop the currently running Shiny app
viewer (viewer.html) (browserViewer,
dialogViewer, paneViewer)
Viewer options

## **Extending Shiny**

(addResourcePath.html)

Functions that are intended to be called by third-party packages that extend Shiny.

createWebDependency
(createWebDependency.html)
Create a web dependency

addResourcePath Resource Publishing

registerInputHandler Register an Input Handler

(registerInputHandler.html)

removeInputHandler Deregister an Input Handler (removeInputHandler.html)

markRenderFunction Mark a function as a render function

# **Utility functions**

(markRenderFunction.html)

Miscellaneous utilities that may be useful to advanced users or when extending Shiny.

req (req.html) Check for required values

validate (validate.html) (need) Validate input values and other conditions

session (session.html) Session object

**exprToFunction** (**exprToFunction.html**) Convert an expression to a function

installExprFunction
(installExprFunction.html)
Install an expression as a function

parseQueryString Parse a GET query string from a URL

(parseQueryString.html)

plotPNG (plotPNG.html) Run a plotting function and save the output as a PNG

repeatable (repeatable.html)

Make a random number generator repeatable

serverInfo (serverInfo.html) Collect information about the Shiny Server environment

shiny-options (shiny-options.html) Global options for Shiny

#### Plot interaction

#### Functions related to interactive plots

<pre>brushedPoints (brushedPoints.html)</pre>	Find rows of data that are selected by a brush
<pre>brushOpts (brushOpts.html)</pre>	Create an object representing brushing options
<pre>clickOpts (clickOpts.html)</pre>	Create an object representing click options
<pre>dblclickOpts (dblclickOpts.html)</pre>	Create an object representing double-click options
hoverOpts (hoverOpts.html)	Create an object representing hover options
nearPoints (nearPoints.html)	Find rows of data that are near a click/hover/double- click

#### Modules

#### Functions for modularizing Shiny apps

```
NS (NS.html) (ns.sep)

Namespaced IDs for inputs/outputs

callModule (callModule.html)

Invoke a Shiny module
```

# **Embedding**

Functions that are intended for third-party packages that embed Shiny applications.

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