shinyappscript

Jessica Cole

November 28, 2018

```
# Shiny App
# November 28 2018
# JSC

# shinyApp is r package that builds interactive web apps( not page).
# uses R coding and interactiveness of web to create a reactive experience.
# ui : user interface: this is the controls and layout/appearance of the app. This is what the user wil
# server: the coding instructions for the shiny app
# control widgets: web elements that users will interact with.

# library(shiny)
# #Define UI ----
# ui <- fluidPage(
#   titlePanel(""),
#   sidebarLayout(
#     sidebarPanel(
#     ),
#     mainPanel(
#     )
#   )
# )
#
# #Define server ----
# server <- function(input,output){
# }
#
# #Run the app ----
# shinyApp(ui=ui,server = server)


library(shiny)


ui <- fluidPage(

  # add a title to shiny App
  titlePanel("This is a Test shiny"),

  # create sidebar for interactive elements
  sidebarLayout(position ="left",

                # add sidebar panel
                sidebarPanel(

                  # add a header in side panel
                  h1("This is my first Header"),
                  h2("second"),
```

```
                  h3("third"),
                  # add in widgets. widgets allow user to change elements
                  # selectInput requires: name, label, choices)
                  selectInput("X",label = "X", names(trees)),
                  selectInput("Y", label = "Y", names(trees))),
                mainPanel(

                  # add a header in main panel as well
                  h1("header"),

                  # bold text
                  h2(strong("Header 2")),

                  # add a paragraph
                  p("This is a paragraph about my graph. It's a plot of how many x are in a square. Use

                  # add line breaks
                  br(),


                  # add an image
                  img(src = "ant.jpg",height = 75, width = 75),

                  # insert the "output", the main reactive element
                  plotOutput("TreePlot")
                )
  )
)

#
server <- function(input,output){

  # combine the selected variables into new data frame
  selectedData <- reactive({
    trees[,c(input$X,input$Y)]
  })

  # use render plot to add to reactive element
  output$TreePlot <- renderPlot({

    # basic plot function thats built into r
    plot(selectedData(),

# type refers how the data is shown: p - points, l - lines, b - both
         type = "p",

# change point:using pch values stored in 'plot' function. 21.25 - color and fill points, 19 - solid ci
         pch = 21.25,
         col = "black",
         bg = "blue",

# add a main title to graph
         main = "This is the main title of the Graph",
```

```
# add a subtitle as a caption
         sub = "this is the subtitle for the plot. A good way to add a caption below the graph")

  }
  )
}

# call to shiny app
shinyApp(ui=ui,server=server)
```

Shiny applications not supported in static R Markdown documents