Coursera - Developing Data Products – Quiz 1

Question 1

Which of the following are absolutely necessary for creating a functioning shiny app? (Check all that apply)

Answer:

- A server.R file containing a call to shinyServer()
- A ui.R file containing a call to shinyUI()

Question 2

What is incorrect about the following syntax in ui.R?

```
library(shiny)
shinyUI(pageWithSidebar(
  headerPanel("Data science FTW!"),
  sidebarPanel(
     h2('Big text')
     h3('Sidebar')
  ),
  mainPanel(
       h3('Main Panel text')
  )
))
```

Answer:

Missing a comma in the sidebar panel

Question 3

Consider the following in ui.R

```
shinyUI(pageWithSidebar(
   headerPanel("Example plot"),
   sidebarPanel(
     sliderInput('mu', 'Guess at the mu',value = 70, min = 60, max = 80, step = 0.05,)   )
,
   mainPanel(
     plotOutput('newHist')
   )
))
```

And the following in server.R

```
library(UsingR)
data(galton)

shinyServer(
    function(input, output) {
       output$myHist <- renderPlot({
          hist(galton$child, xlab='child height', col='lightblue',main='Histogram')
          mu <- input$mu
          lines(c(mu, mu), c(0, 200),col="red",lwd=5)
          mse <- mean((galton$child - mu)^2)
          text(63, 150, paste("mu = ", mu))
          text(63, 140, paste("MSE = ", round(mse, 2)))
          })      }
)
```

Why isn’t it doing what we want? (Check all that apply.)

Answer:

The server.R output name isn’t the same as the plotOutput command used in ui.R.

Question 4

What are the main differences between creating a Shiny Gadget and creating a regular Shiny App? (Check all that apply)

Answer:

- Shiny Gadgets are designed to have small user interfaces that fit on one page.
- Shiny Gadgets are designed to be used by R users in the middle of a data analysis.

Question 5

Consider the following R script:

```
library(shiny)
library(miniUI)

pickXY <- function() {
  ui <- miniPage(
    gadgetTitleBar("Select Points by Dragging your Mouse"),
    miniContentPanel(
      plotOutput("plot", height = "100%", brush = "brush")
    )
  )

  server <- function(input, output, session) {
      output$plot <- renderPlot({
        plot(data_frame$X, data_frame$Y, main = "Plot of Y versus X",
           xlab = "X", ylab = "Y")
      })
      observeEvent(input$done, {
        stopApp(brushedPoints(data_frame, input$brush,
                          xvar = "X", yvar = "Y"))
      })
  }

  runGadget(ui, server)
}

my_data <- data.frame(X = rnorm(100), Y = rnorm(100))

pickXY(my_data)
```

Why isn't it doing what we want?

Answer:

No arguments are defined for pickXY()