Quiz 1

Quiz, 5 questions

5/5 points (100%)

Congratulations! You passed! Next Item

1 / 1 points

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

- [x] A ui.R file containing a call to shinyUI()

  Correct

- [x] A server.R file containing a call to shinyServer()

  Correct

- [ ] A shiny.R file containing calls to shinyServer() and shinyUI()

  Un-selected is correct

- [ ] A server.R file that sets configuration options for hosting the App

  Un-selected is correct

- [ ] A ui.R file that contains information about the CSS and styling of the App

  Un-selected is correct

1 / 1 points

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')
 )
))
```

- [ ] The h3 command should be an h2 command
- [ ] Missing comma after the h3 command
- [x] Missing a comma in the sidebar panel

  Correct

- [ ] The h2 command does not take text arguments

1 / 1 points

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.)

- [x] The server.R output name isn't the same as the plotOutput command used in ui.R.

  Correct

- [ ] The phrase "Guess at the mu value" should say "mean" instead of "mu"
- [ ] It should be

  ```
  mu <- input$mean
  ```

  in server.R

- [ ] The limits of the slider are set incorrectly and giving an error.

1 / 1 points

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

- [ ] Shiny Gadgets are smaller programs and therefore run faster than Shiny Apps.

  Un-selected is correct

- [ ] Shiny Gadgets are specially designed for use on mobile phones and tablet computers.

  Un-selected is correct

- [x] Shiny Gadgets are designed to be used by R users in the middle of a data analysis.

  Correct

- [x] Shiny Gadgets are designed to have small user interfaces that fit on one page.

  Correct

- [ ] Shiny Gadgets can be run on a user's personal computer, unlike a regular Shiny App which needs to be hosted online.

  Un-selected is correct

1 / 1 points

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?

- [ ] The wrong column names are passed to brushedPoints()
- [ ] The input data is defined in such a way that it is not compatible with pickXY()
- [x] No arguments are defined for pickXY()

  Correct

- [ ] The call to plot() references the column names of the data frame in the wrong order.