

Quiz 1

5 questions

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1.

Consider the following code for the cars data set

```
library(manipulate)
myPlot <- function(s) {
  plot(cars$dist - mean(cars$dist), cars$speed - mean(cars$spe
ed))
  abline(0, s)
}
```

This function plots distance versus speed, each de-meanned and an associated line of slope s .

Which of the following code will make a manipulate plot that creates a slider for the slope?

☐

```
manipulate(myPlot(s), slider = x(0, 2, step = 0.1))
```

☐

```
manipulate(myPlot, s = slider(0, 2, step = 0.1))
```

☐

```
manipulate(myPlot(s), x.s = slider(0, 2, step = 0.1))
```

☐

```
manipulate(myPlot(s), s = slider(0, 2, step = 0.1))
```

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2.

Which of the following code uses the **rCharts** package to create a sortable and searchable data table for the **airquality** data set? Assume the **rCharts** package and the **airquality** data set have already been loaded into R.

☐

```
dTable(airquality, sPaginationType = "full_numbers")
```

☐

```
d <- data.frame(airquality, stringsAsFactors = FALSE)print(d)
```

☐

```
airquality
```

☐

```
head(airquality)
```

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3.

A basic shiny data product requires:

☐

A **server.R** file only.

☐

A **ui.R** and **server.R** file or a **server.R** file and a directory called **www** containing the relevant html files.

☐

A **shiny.R** file.

☐

A **ui.R** file only.

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4.

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 `h2` command has the wrong arguments.
 - ☐ The `h3` command should be an `h2` command.
 - ☐ The `"Sidebar"` should say `"Sidebar text"`.
 - ☐ Missing a comma in the sidebar panel
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5.

Consider the following code 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 **server.R** code.

```
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?

- ☐ The limits of the slider are set incorrectly and giving an error.
- ☐ The phrase "Guess at the mu value" should say "mean" instead of "mu"
- ☐ The server.R output name isn't the same as the plotOutput command used in ui.R.
- ☐ It should be **mu <- input\$mean** in server.R

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