**Quiz 1**

You submitted this quiz on **Sun 7 Dec 2014 4:09 PM EST**. You got a score of **5.00** out of **5.00**.

**Question 1**

Consider the following code for the cars data set

library(manipulate)

myPlot <- function(s) {

plot(cars$dist - mean(cars$dist), cars$speed - mean(cars$speed))

abline(0, s)

}

This function plots distance versus speed, each de-meaned and an associated line of slope s. Which of the following code will make a manipulate plot that creates a slider for the slope?

|  |  |  |  |
| --- | --- | --- | --- |
| **Your Answer** |  | **Score** | **Explanation** |
| manipulate(myPlot, s = slider(0, 2, step = 0.1)) |  |  |  |
| manipulate(myPlot(s), s = slider(0, 2, step = 0.1)) | Correct | 1.00 |  |
| manipulate(myPlot(s), x.s = slider(0, 2, step = 0.1)) |  |  |  |
| manipulate(myPlot(s), slider = x(0, 2, step = 0.1)) |  |  |  |
| Total |  | 1.00 / 1.00 |  |

**Question 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.

|  |  |  |  |
| --- | --- | --- | --- |
| **Your Answer** |  | **Score** | **Explanation** |
| dTable(airquality, sPaginationType = "full\_numbers") | Correct | 1.00 |  |
| d |  |  |  |
| airquality |  |  |  |
| head(airquality) |  |  |  |
| Total |  | 1.00 / 1.00 |  |

**Question 3**

A basic shiny data product requires:

|  |  |  |  |
| --- | --- | --- | --- |
| **Your Answer** |  | **Score** | **Explanation** |
| A ui.R file only. |  |  |  |
| A ui.R and server.R file or a A server.R file and a directory called www containing the relevant html files. | Correct | 1.00 |  |
| A server.R file only. |  |  |  |
| A shiny.R file. |  |  |  |
| Total |  | 1.00 / 1.00 |  |

**Question 4**

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

library(shiny)

shinyUI(pageWithSidebar(

headerPanel("Data science FTW!"),

sidebarPanel(

h2('Big text')

h3('Sidebar')

),

mainPanel(

h3('Main Panel text')

)

))

|  |  |  |  |
| --- | --- | --- | --- |
| **Your Answer** |  | **Score** | **Explanation** |
| The h3 command should be an h2 command. |  |  |  |
| The h2 command has the wrong arguments. |  |  |  |
| The "Sidebar" should say "Sidebar text". |  |  |  |
| Missing a comma in the sidebar panel | Correct | 1.00 |  |
| Total |  | 1.00 / 1.00 |  |

**Question 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?

|  |  |  |  |
| --- | --- | --- | --- |
| **Your Answer** |  | **Score** | **Explanation** |
| The phrase "Guess at the mu value" should say "mean" instead of "mu" |  |  |  |
| The limits of the slider are set incorrectly and giving an error. |  |  |  |
| The server.R output name isn't the same as the plotOutput command used in ui.R. | Correct | 1.00 |  |
| It should be mu in server.R |  |  |  |
| Total |  | 1.00 / 1.00 |  |