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20BDS0374
DATA VISUALISATION AND PRESENTATION
LAB ASSESSMENT 2

QUESTION:

Write an R code to create a dashboard using the 'Shiny' module.

CODE:

- Server:

```
shinyServer(
  function(input, output, session)
  {
    output$myPlot <- renderPlot({
      distributionType <- input$distribution
      size <- input$sampleSize
      if (distributionType == "Normal")
      {
        randomeVector <- rnorm(size, mean = as.numeric(input$mean), sd =
as.numeric(input$standardDeviation))
      }
      else
      {
        randomVector <- rexp(size, rate = 1 / as.numeric(input$lambda))
      }
      hist(randomVector, col = 'purple')
    })
  }
)
```

- User Interface:

```
library(shiny)
library(shinydashboard)

#Creating an application name called 'shinyServer'
shinyServer(
  pageWithSidebar(
    headerPanel("20BDS0374"),
    sidebarPanel(
      selectInput("distribution", "Please select the distribution type"),
      choices = c('Normal', 'Exponential')
    ),
    sliderInput("sampleSize", "Please select a sample size", min = 100, max =
5000, step = 100),
```

```
    conditionalPanel(condition = "input.distribution == 'Normal'",
                     textInput("mean", "Please enter a mean value: ", 10),
                     textInput("standardDeviation", "please enter the standard
deviation", 3)
    ),
    conditionalPanel(condition = "input.distribution == 'Exponential'",
                     textInput("lambda", "Please enter the exponential
value")),
    mainPanel(plotOutput('myPlot'))
  )
)
```

OUTPUT: