**Day 5 Assignment**

Q 1(Assignment 1)

Develop a Shiny App for calculating Area of a circle for the radius from 1 to 30.

Accept the radius of the circle from the widget(NumericInput)

**Code of ui.R:**

library(shiny)

fluidPage(

titlePanel("Calculation of Area of Circle"),

sidebarLayout(

sidebarPanel(

numericInput("radius", "Enter the radius of circle", value=0)

),

mainPanel(

textOutput('area')

)

)

)

**Code of server.R:**

library(shiny)

function(input,output){

output$area<- renderText(paste("Area of circle is:",pi\*input$radius\*input$radius))

}

**Q 2(Assignment 2)**

Develop a shiny App and display the variable and range

**Code of ui.R:**

library(shiny)

fluidPage(

titlePanel(h1("censusVis")),

sidebarLayout(

sidebarPanel(

p("Create demographic maps with information from the 2010 US Census"),

selectInput("percent", "Choose a variable to display", choices = c("Percent White", "Percent Black", "Percent Hispan", "Percent Asian"), selected="Percent White"),

sliderInput("range", "Range of Interest", value=c(0,100), min=0, max=100)

),

mainPanel(

)

)

)

**Code of server.R:**

library(shiny)

function(input,output){}

**Q 3(Assignemnt 3)**

* Create a shiny app named ‘cars’ with the following requirements:

1. Layout: sidebar layout.

2. A slider in the sidebar panel with inputId “nrows” and label “Number of rows:”, which controls how many rows of the data set datasets::cars to use in the following analysis. The minimum value is 1, maximum value is 50 and default value is 10. 3. In the main panel, create a scatterplot with x axis speed and y axis dist on the top and a table showing the data on the bottom, using outputId “carsPlot” and “carsTable” respectively.

**Code of ui.R:**

library(shiny)

fluidPage(

titlePanel(h1("Assignment 3")),

sidebarLayout(

sidebarPanel(

sliderInput("nrows", "Number of Rows:",value=20.3, min=1, max=50)

),

mainPanel(

plotOutput('myplot'),

tableOutput('mytable')

)

)

)

**Code of server.R:**

library(shiny)

function(input,output){

output$myplot<- renderPlot(

plot(head(cars,input$nrows))

)

output$mytable<-renderTable(

head(cars,input$nrows)

)

}