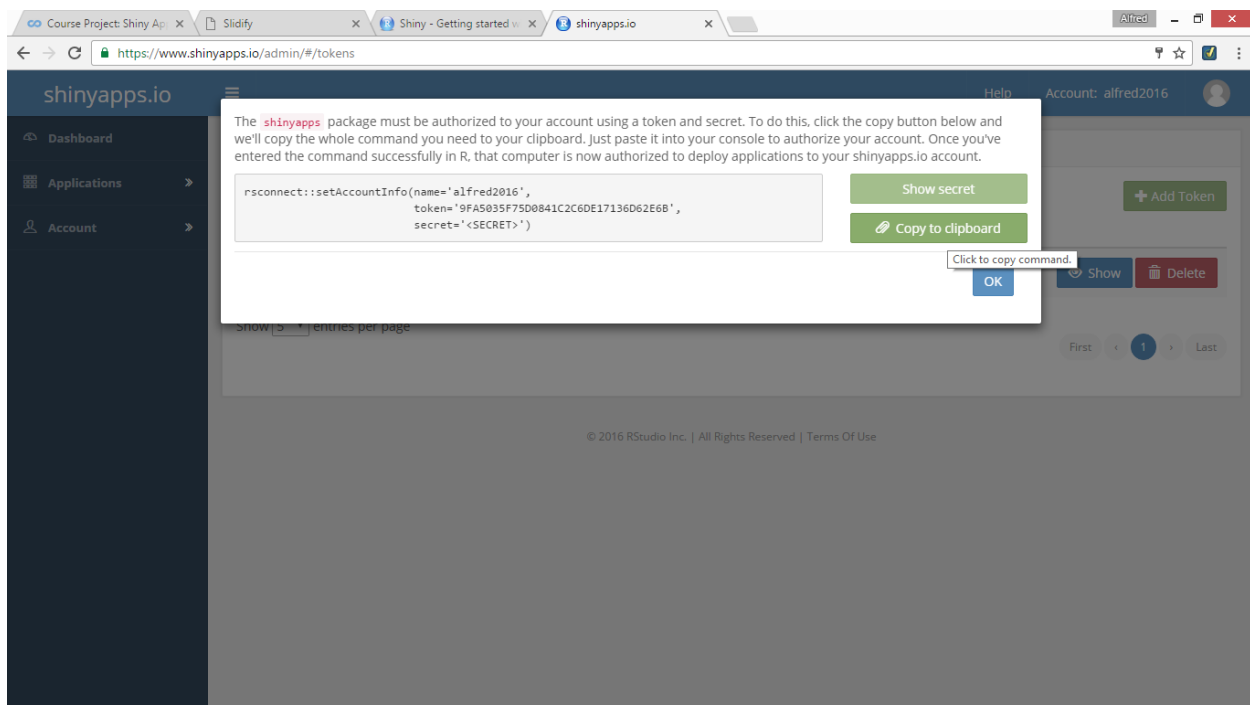
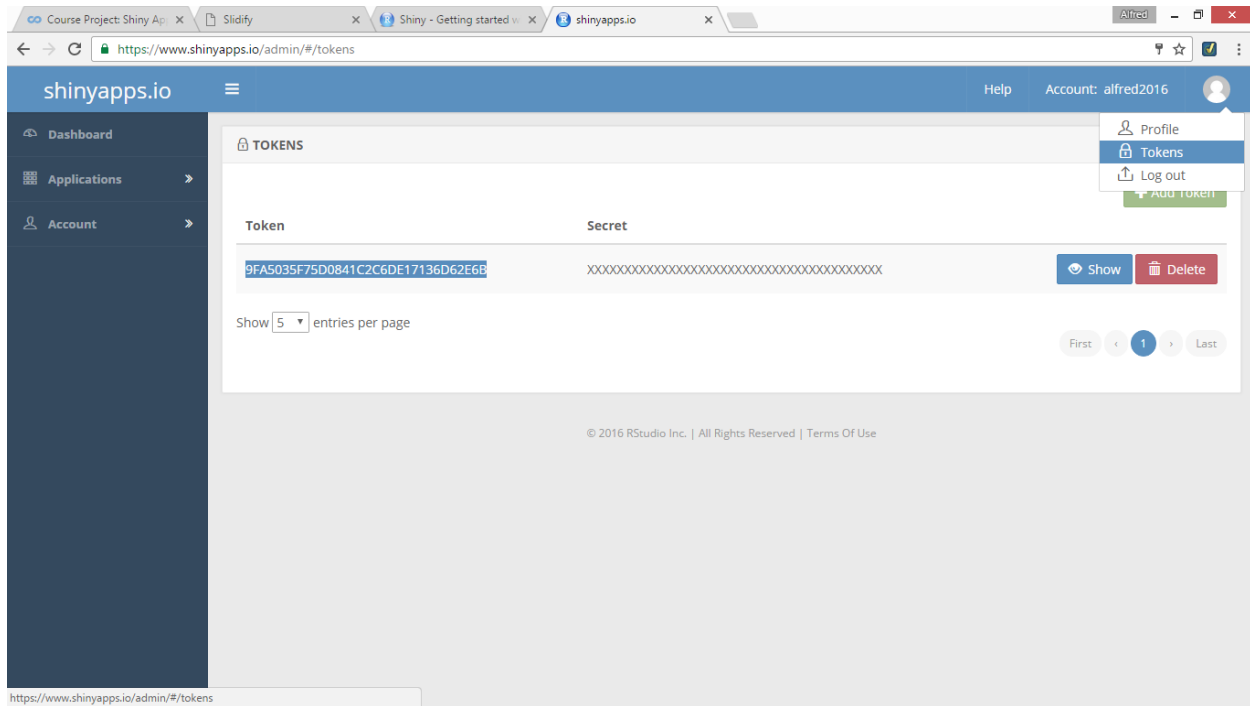


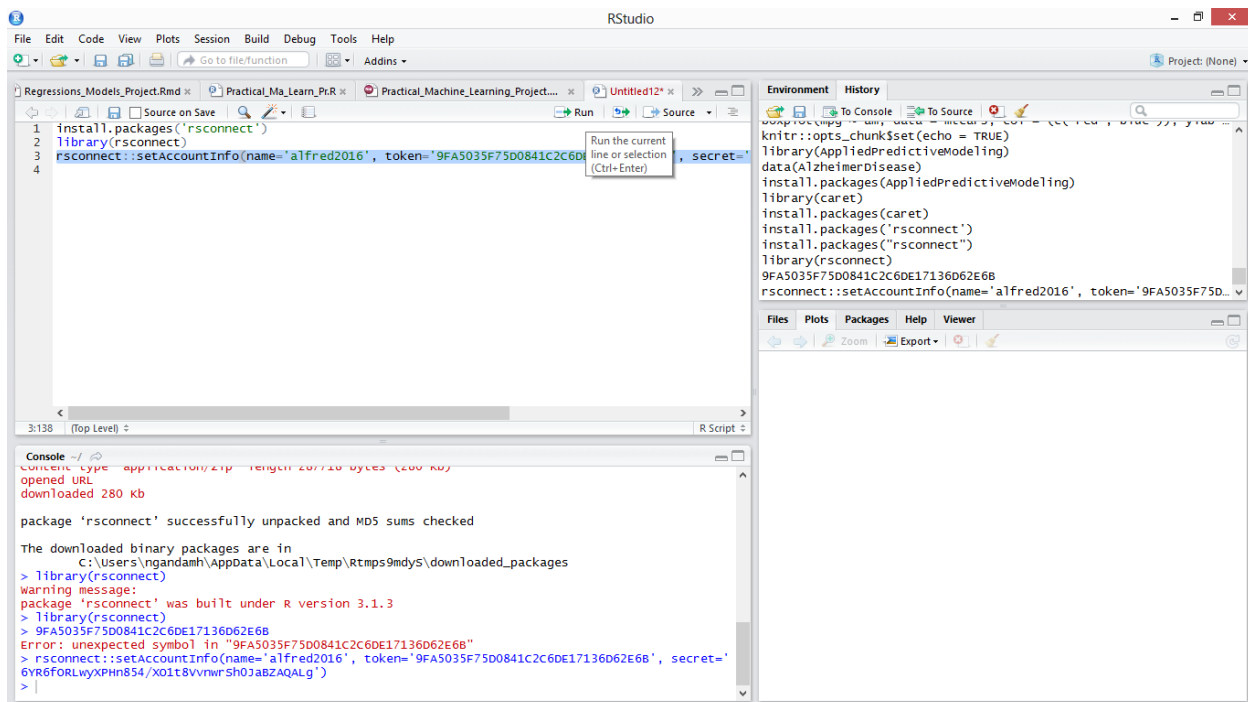
WELCOME TO MTCARS DATASET ANALYSIS: VARIABLES AND Miles Per Gallon

PRESENTED

By
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1- Opening an account on Shinyapps.io using your Github account





2- LOADING THE DATA OF THE REGRESSION MODELS COURSE ON COURSEARA TO CREATE A SHINY APPLICATION AND DEPLOY IT ON R STUDIO

URL of the data:

https://github.com/Alfredhomere/Developing_Data_Product_Project/blob/master/RData

URL of the Rmd file with all the codes embedded:

https://github.com/Alfredhomere/Developing_Data_Product_Project/blob/master/Developing_Data_Product_Project.Rmd

3- SHINY APPLICATIONS:

Server.R:

library(shiny)

library(datasets)

mpgData <- mtcars

mpgData\$am <- factor(mpgData\$am, labels = c("Automatic", "Manual"))

shinyServer(function(input, output) {

```
  formulaText <- reactive({
    paste("mpg ~", input$variable)
  })
```

```
  formulaTextPoint <- reactive({
    paste("mpg ~", "as.integer(", input$variable, ")")
  })
```

```
  fit <- reactive({
```

```
lm(as.formula(formulaTextPoint()), data=mpgData)
})
```

```
output$caption <- renderText({
  formulaText()
})
```

```
output$mpgBoxPlot <- renderPlot({
  boxplot(as.formula(formulaText()),
    data = mpgData,
    outline = input$outliers)
})
```

```
output$fit <- renderPrint({
  summary(fit())
})
```

```
output$mpgPlot <- renderPlot({
  with(mpgData, {
    plot(as.formula(formulaTextPoint()))
    abline(fit(), col=2)
  })
})
```

```
})
```

UI.R:

```
library(shiny)
```

```
shinyUI(
  navbarPage("Just a Shiny Application",
    tabPanel("Analysis",
      fluidPage(
        titlePanel("The relationship between variables and miles per gallon (MPG)"),
        sidebarLayout(
          sidebarPanel(
            selectInput("variable", "Variable:",
              c("Number of cylinders" = "cyl",
                "Displacement (cu.in.)" = "disp",
                "Gross horsepower" = "hp",
                "Rear axle ratio" = "drat",
                "Weight (lb/1000)" = "wt",
                "1/4 mile time" = "qsec",
                "V/S" = "vs",
                "Transmission" = "am",
```

```

        "Number of forward gears" = "gear",
        "Number of carburetors" = "carb"
    )),

    checkboxInput("outliers", "Show BoxPlot's outliers", FALSE)
),

mainPanel(
  h3(textOutput("caption")),

  tabsetPanel(type = "tabs",
    tabPanel("BoxPlot", plotOutput("mpgBoxPlot")),
    tabPanel("Regression model",
      plotOutput("mpgPlot"),
      verbatimTextOutput("fit")
    )
  )
),
),
tabPanel("Check the Source Code",
  h2("All the Source code can be find in courera"),
  hr(),
  h3("Here : Peer Assessments /Regression Models Course Project"),
  helpText("You work for Motor Trend, a magazine about the automobile industry
Looking at a data set of a collection of cars, they are interested in exploring the relationship",
  "between a set of variables and miles per gallon (MPG) (outcome). They are
particularly interested in the following two questions: Is an automatic or manual transmission
better for MPG. Quantify the MPG difference between automatic and manual transmissions"),
  h3("Important"),
  p("A data frame with 32 observations on 11 variables."),

  a("https://class.coursera.org/regmods-008")
),
tabPanel("More Data Detail",
  h2("Motor Trend Car Road Tests"),
  hr(),
  h3("Description"),
  helpText("The data was extracted from the 1974 Motor Trend US magazine,",
  " and comprises fuel consumption and 10 aspects of automobile design and
performance",
  " for 32 automobiles (1973–74 models)."),
  h3("Format"),

```

```

p("A data frame with 32 observations on 11 variables."),

p(" [, 1] mpg      Miles/(US) gallon"),
p(" [, 2]  cyl      Number of cylinders"),
p(" [, 3]  disp     Displacement (cu.in.)"),
p(" [, 4]  hp       Gross horsepower"),
p(" [, 5]  drat     Rear axle ratio"),
p(" [, 6]  wt       Weight (lb/1000)"),
p(" [, 7]  qsec     1/4 mile time"),
p(" [, 8]  vs       V/S"),
p(" [, 9]  am       Transmission (0 = automatic, 1 = manual)"),
p(" [,10]  gear     Number of forward gears"),
p(" [,11]  carb     Number of carburetors"),

h3("Source"),

p("Henderson and Velleman (1981), Building multiple regression models
interactively. Biometrics, 37, 391–411.")
),
tabPanel("Go back to my Github repository",
  a("https://github.com/ludovicbenistant?tab=repositories"),
  hr(),
  h2("I hope you like the Shiny App"),
  h2("The name of the repository is DataProducts")
)
)
)

```