FANCY PLOTS with Plotly

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Introduction

- Creating a web page presentation using R Markdown that features a plot created with Plotly.
- This presentaion includes 2 different plots with code attached, where i'm trying to show the real benefit of using "Plotly" package.

```
#install.packages("plotly")
library(plotly)
```

```
## Warning: package 'plotly' was built under R version 3.4.4
```

```
## Loading required package: ggplot2
```

```
## Warning: package 'ggplot2' was built under R version 3.4.4
```

```
##
## Attaching package: 'plotly'
```

```
## The following object is masked from 'package:ggplot2':
##
##     last_plot
```

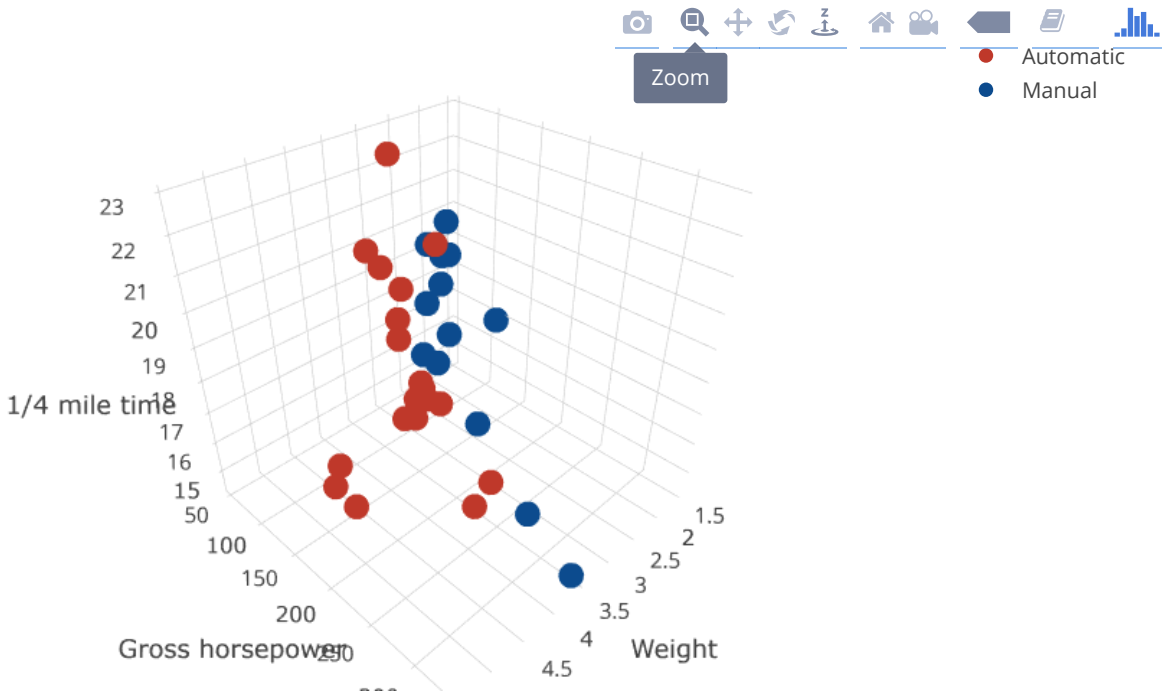
Mtcars 3D plot

```
data("mtcars") ##attaching required data

##re-evaluating [am] parameter and factoring it
mtcars$am[which(mtcars$am == 0)] <- 'Automatic'
mtcars$am[which(mtcars$am == 1)] <- 'Manual'
mtcars$am <- as.factor(mtcars$am)

p <- plot_ly(mtcars, x = ~wt, y = ~hp,
             z = ~qsec, color = ~am,
             colors = c('#BF382A',
                        '#0C4B8E')) %>%
    add_markers() %>%
    layout(scene = list(
        xaxis = list(title = 'Weight'),
        yaxis = list(title = 'Gross horsepower'),
        zaxis = list(title = '1/4 mile time'))); p
```

Mtcars 3D plot [continue]



Life Expectancy and GDP

```
#downloading data
data <- read.csv("https://raw.githubusercontent.com/plotly
                 /datasets/master/gapminderDataFiveYear.csv")

#subsetting the data
data_2007 <- data[which(data$year == 2007), ]
#ordering based on 2 parameters
data_2007 <- data_2007[order(data_2007$continent,
                             data_2007$country),]
slope <- 2.666051223553066e-05
#defining bubble's based on population size
data_2007$size <- sqrt(data_2007$pop * slope)
#definig colors variable
colors <- c('#4AC6B7', '#1972A4', '#965F8A', '#FF7070', '#C61951')
```

Life Expectancy and GDP [continue]

```
p <- plot_ly(data_2007, x = ~gdpPercap, y = ~lifeExp, color = ~continent,
             size = ~size, colors = colors,type = 'scatter', mode = 'markers',
             sizes = c(min(data_2007$size), max(data_2007$size)),
             marker = list(symbol = 'circle', sizemode = 'diameter',
                           line = list(width = 2, color = '#FFFFFF')),
             text = ~paste('Country:', country, '<br>Life Expectancy:', lifeExp,
                           '<br>GDP:', gdpPercap,'<br>Pop.:', pop)) %>%
    layout(title = 'Life Expectancy v. Per Capita GDP, 2007',
           xaxis = list(title = 'GDP per capita (2000 dollars)',
                        gridcolor = 'rgb(255, 255, 255)',
                        range = c(2.003297660701705, 5.191505530708712),
                        type = 'log', zerolinewidth = 1, ticklen = 5, gridwidth = 2),
           yaxis = list(title = 'Life Expectancy (years)', gridcolor = 'rgb(255, 255, 255)',
                        range = c(36.12621671352166, 91.72921793264332),
                        zerolinewidth = 1, ticklen = 5, gridwith = 2),
           paper_bgcolor = 'rgb(243, 243, 243)',
           plot_bgcolor = 'rgb(243, 243, 243)')
```

Life Expectancy and GDP [continue]

Refrences

*Find various 3D charts at here

*Find fancy bubble charts at here

THANK YOU