

Assignment 1.2 - Week 1&2 in R

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Load required libraries

```
library(readxl)
library(ggplot2)
library(RColorBrewer)
library(plotly)
```

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

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

```
## The following object is masked from 'package:stats':
##
## filter
```

```
## The following object is masked from 'package:graphics':
##
## layout
```

```
library(webshot)
```

Read xls into a dataframe

```
obama_approvals_df <- read_excel(path = "C:/Masters/GitHub/Summer2023/DSC640-Data Presentation & Visualization/Week1&2/Data/obama-approval-ratings.xls")
nrow(obama_approvals_df)
```

```
## [1] 13
```

```
head(obama_approvals_df,5)
```

```
## # A tibble: 5 × 4
## Issue      Approve Disapprove None
## <chr>      <dbl>    <dbl> <dbl>
## 1 Race Relations    52      38    10
## 2 Education         49      40    11
## 3 Terrorism         48      45     7
## 4 Energy Policy     47      42    11
## 5 Foreign Affairs   44      48     8
```

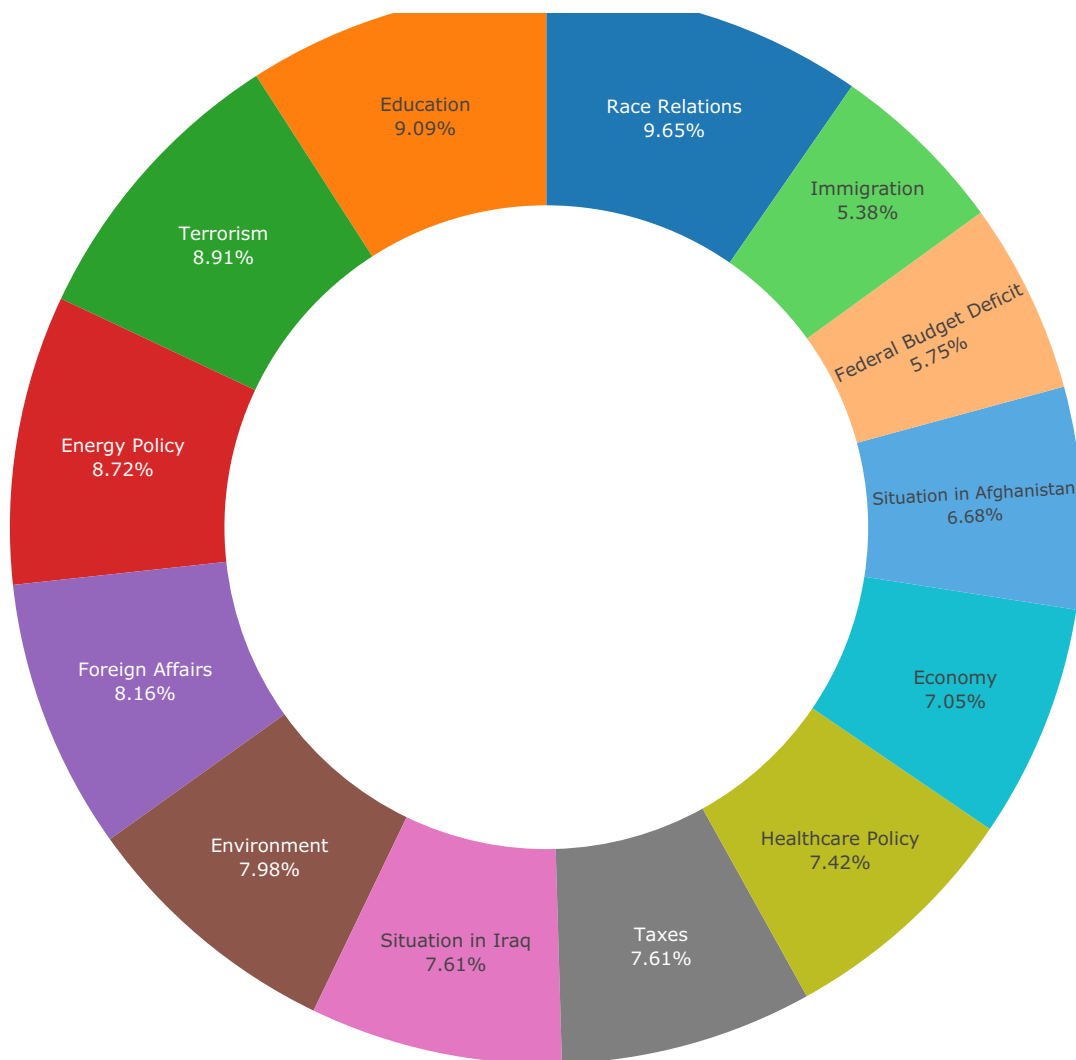
DONUT CHART

```
#fig <- obama_approvals_df %>% plot_ly(labels = ~Issue, values = ~Approve, textposition = 'outside', #textinfo='percent+label', width = 1)
#fig <- fig %>% add_pie(hole = 0.6)
#fig <- fig %>% layout(title = list(text='Donut charts using Plotly'),
#                          autosize = T ,showlegend = F)
#fig

fig1 <- plot_ly(obama_approvals_df, labels = ~Issue, values = ~Approve, #type = 'pie',
               textposition = 'inside',
               textinfo = 'percent+label',
               text = ~paste(Issue),
               showlegend = FALSE)
fig1 <- fig1 %>% add_pie(hole = 0.6)
fig1 <- fig1 %>% layout(title = 'Approval Rates by Issue',autosize = T)
fig1
```

Approval Rates by Issue

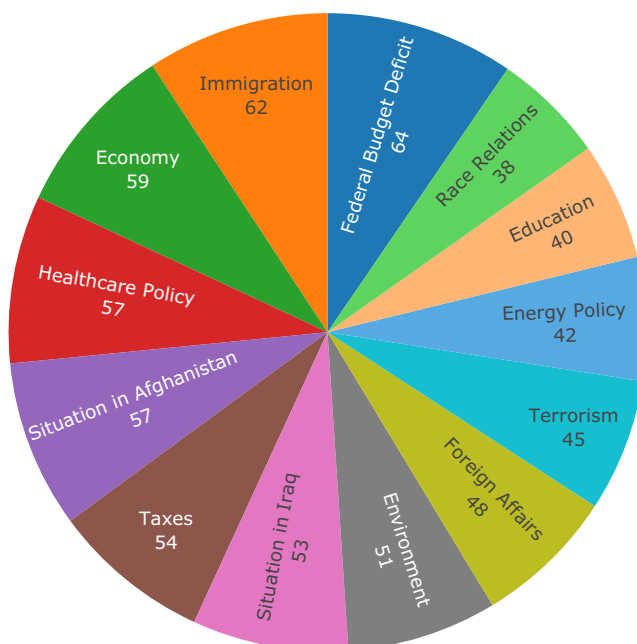




PIE CHART

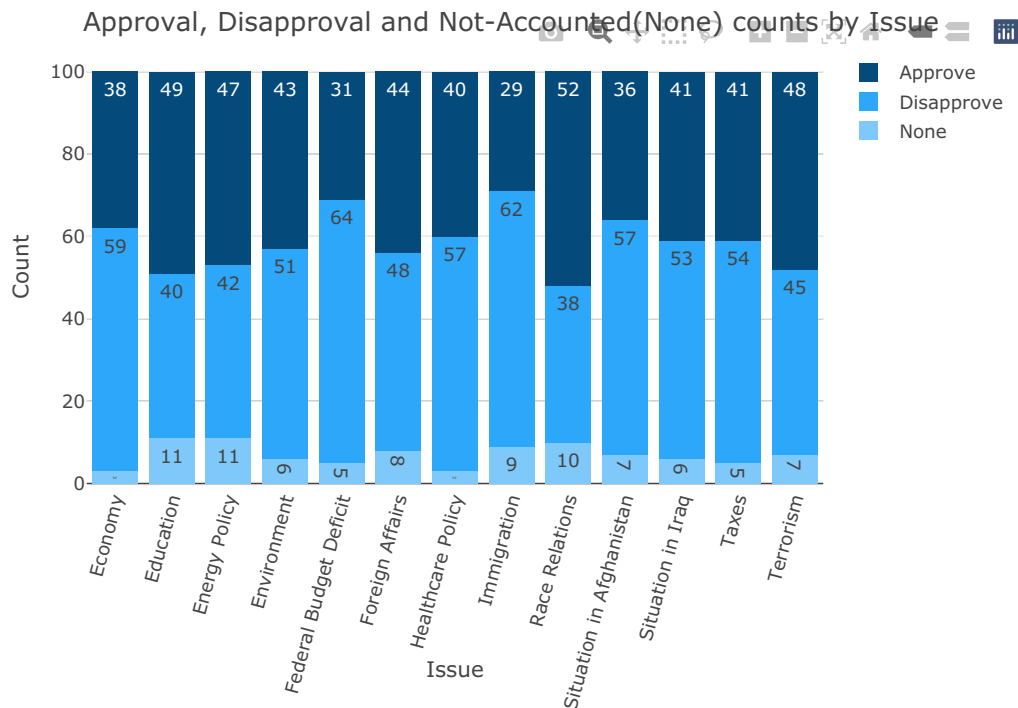
```
#Pie Chart
fig <- obama_approvals_df %>% plot_ly(labels = ~Issue, values = ~Disapprove,
                                     type = 'pie', textposition = 'inside',
                                     textinfo='value+label')
fig <- fig %>% layout(title = "Disapproval Counts per Issue",autosize = T, showlegend = F)
fig
```

Disapproval Counts per Issue



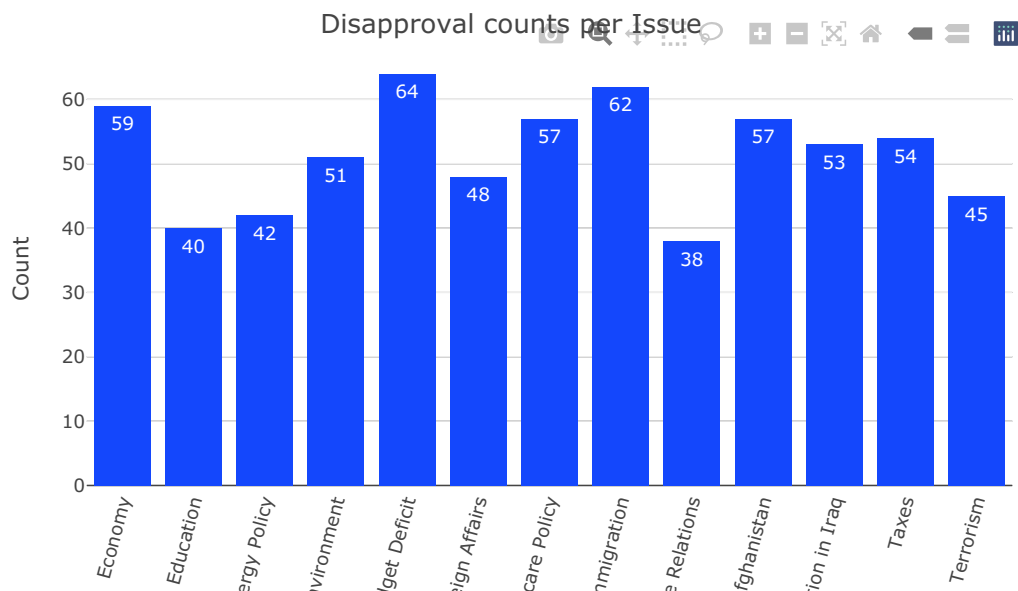
STACKED BAR CHART

```
#Stacked Bar Chart
fig <- plot_ly(obama_approvals_df)
fig <- fig %>% add_trace(x = ~Issue,y = ~None, name = 'None',text = ~None, type='bar',
                        marker = list(color = 'rgb(127, 200, 250)',
                                      line = list(color = 'rgb(8,48,107)' )))
fig <- fig %>% add_trace(x = ~Issue,y = ~Disapprove, name = 'Disapprove',text = ~Disapprove, type='bar',
                        marker = list(color = 'rgb(45, 167, 250)',
                                      line = list(color = 'rgb(8,48,107)'))))
fig <- fig %>% add_trace(x = ~Issue,y = ~Approve, name = 'Approve', text = ~Approve, type='bar',
                        marker = list(color = 'rgb(4, 74, 122)',
                                      line = list(color = 'rgb(8,48,107)'))))
fig <- fig %>% layout(title = "Approval, Disapproval and Not-Accounted(None) counts by Issue",yaxis = list(title = 'Count'),autosize = T,
                    barmode = 'stack',xaxis = list(title = "Issue", tickangle = -75))
fig
```



BAR CHART

```
#Bar Chart
fig <- plot_ly(obama_approvals_df,x = ~Issue,y = ~Disapprove, name = 'Disapprove',
              text = ~Disapprove, type='bar',
              marker = list(color = 'rgb(20, 71, 252)',
                            line = list(color = 'rgb(8,48,107)'))))
fig <- fig %>% layout(title="Disapproval counts per Issue",autosize = T,yaxis = list(title = 'Count'),
                    xaxis = list(title = "Issue", tickangle = -75))
fig
```



LINE CHART

Line Chart

```
fig <- plot_ly(obama_approvals_df, x = ~Issue)
fig <- fig %>% add_lines(y = ~Disapprove, name = "Disapprove")
fig <- fig %>% add_lines(y = ~Approve, name = "Approve")
fig <- fig %>% layout(title="Approvals and Disapproval by Issue",autosize = T)
fig
```

