Assignment 1.2 - Week 1&2

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

Load required libraries

```
##
## 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
```

```r
obama_approvals_df <- read_excel(path = "C:/Masters/GitHub/Summer2023/DSC640-Data Presentation & Visuali
nrow(obama_approvals_df)
```

Read xls into a dataframe

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

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

```
## # A tibble: 5 x 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
```
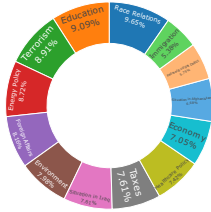
DONUT CHART

```r
#fig <- obama_approvals_df %>% plot_ly(labels = ~Issue, values = ~Approve, textposition = 'outside', #t
#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),
      marker = list(line = list(color = '#FFFFFF', width = 1)),
      showlegend = FALSE)
fig1 <- fig1 %>% add_pie(hole = 0.6)
fig1 <- fig1 %>% layout(title = 'Donut charts using Plotly',
       xaxis = list(showgrid = FALSE, zeroline = FALSE, showticklabels = FALSE),
       yaxis = list(showgrid = FALSE, zeroline = FALSE, showticklabels = FALSE))
fig1
```
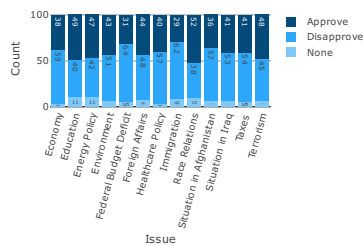

Donut charts using Plotly

STACKED BAR CHART

```r
#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(yaxis = list(title = 'Count'), barmode = 'stack',
                      xaxis = list(title = "Issue", tickangle = -75))
fig
```
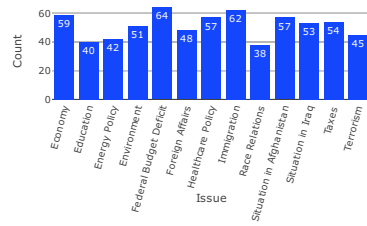

BAR CHART

```r
#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(yaxis = list(title = 'Count'),
```
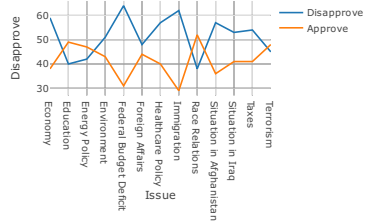
```
                      xaxis = list(title = "Issue", tickangle = -75))
fig
```


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
```

PIE CHART

```r
#Pie Chart
fig <- obama_approvals_df %>% plot_ly(labels = ~Issue, values = ~Disapprove,
                                      type = 'pie', textposition = 'inside',
                                      textinfo='value+label')
fig <- fig %>% layout(title = "Pie charts using Plotly",  showlegend = F)
fig
```

Pie charts using Plotly