

Assignment_1_2_Vayuvegula_Soma_Shekar_Python

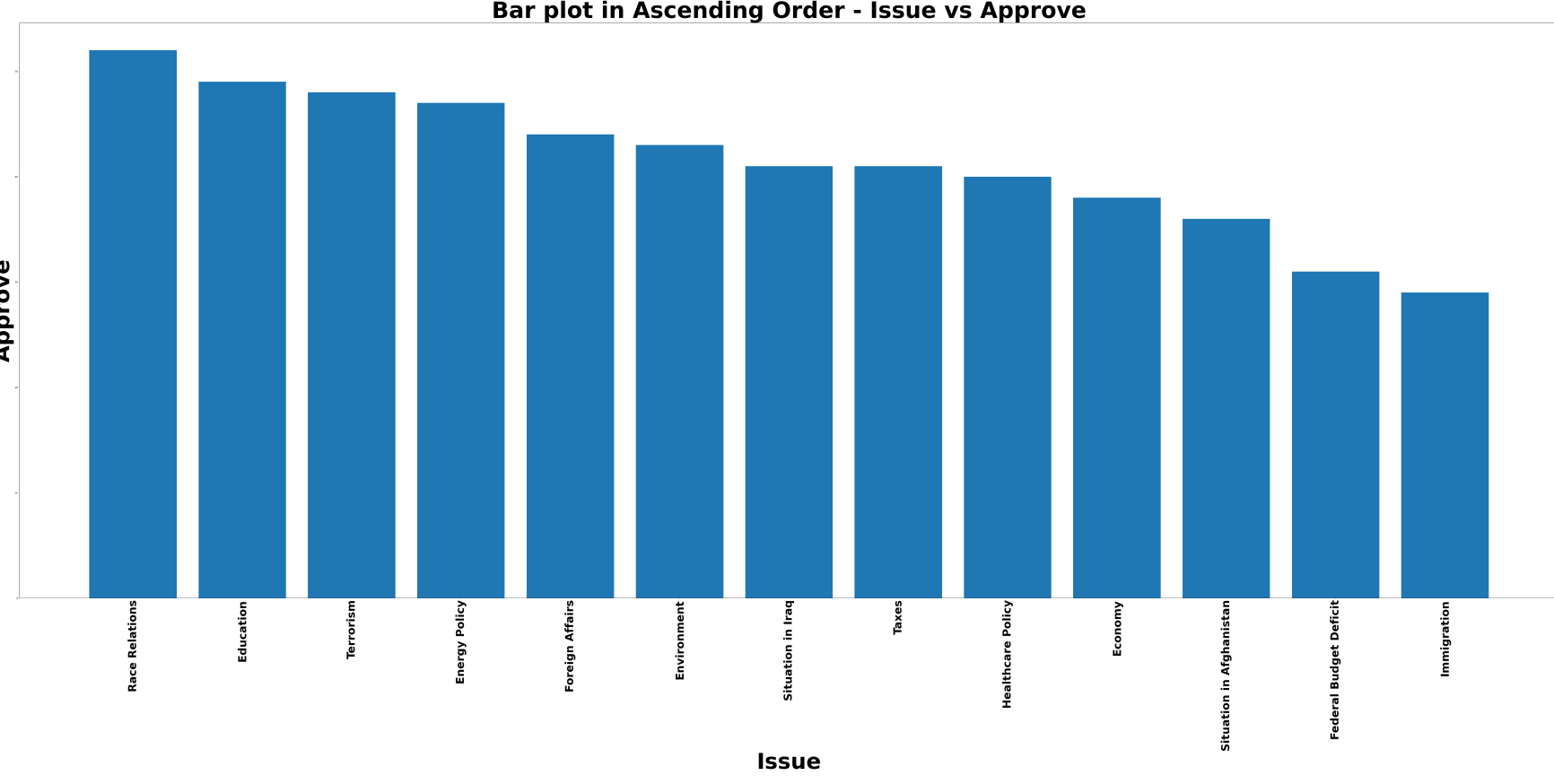
```
In [1]: #Import libraries
import matplotlib.pyplot as plt
import pandas as pd
```

```
In [2]: #Read CSV data
df_obama = pd.read_excel("/Users/somashekarvayuvegula/Documents/Workspace/Data_Presentation_Visualization/Week_1/Week_1_Data.xlsx")
df_obama
```

	Issue	Approve	Disapprove	None
0	Race Relations	52	38	10
1	Education	49	40	11
2	Terrorism	48	45	7
3	Energy Policy	47	42	11
4	Foreign Affairs	44	48	8
5	Environment	43	51	6
6	Situation in Iraq	41	53	6
7	Taxes	41	54	5
8	Healthcare Policy	40	57	3
9	Economy	38	59	3
10	Situation in Afghanistan	36	57	7
11	Federal Budget Deficit	31	64	5
12	Immigration	29	62	9

Bar charts:

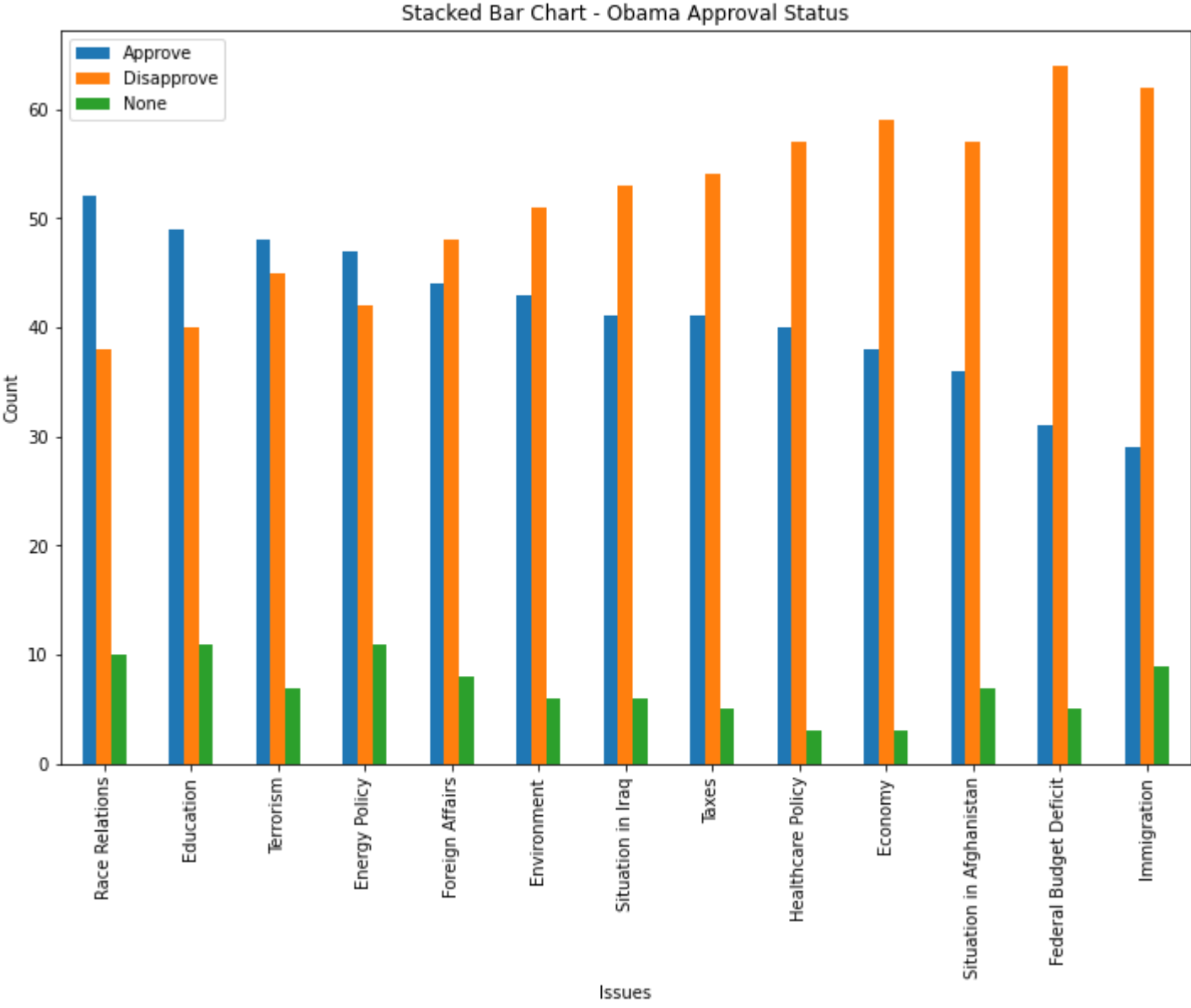
```
In [3]: plt.figure(figsize=(120,46))
# bar plot with matplotlib
width = 0.8 # the width of the bars
plt.bar('Issue', 'Approve',width,data=df_obama)
plt.xticks(label="Issue",rotation=90, horizontalalignment="center", size=48, weight='bold')
plt.xlabel("Issue", size=95, weight='bold')
plt.ylabel("Approve", size=95, weight='bold')
plt.title("Bar plot in Ascending Order - Issue vs Approve", size=98, weight='bold')
plt.show()
```



Stacked Bar Charts:

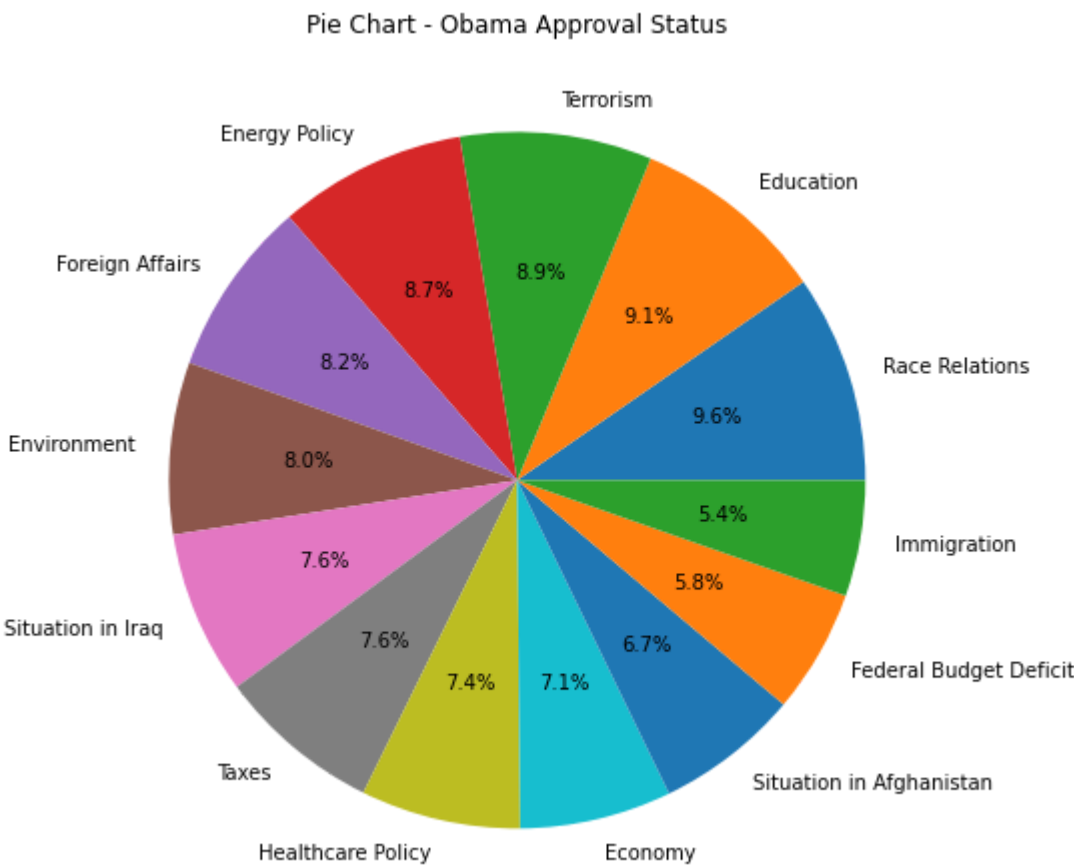
```
In [4]: df_obama.plot.bar(x="Issue",title="Stacked Bar Chart - Obama Approval Status",xlabel="Issues",ylabel="Count",figsize=(12,8))
```

```
Out[4]: <AxesSubplot:title={'center': 'Stacked Bar Chart - Obama Approval Status'}, xlabel='Issues', ylabel='Count'>
```



Pie Charts:

```
In [5]: plt.figure(figsize=(12,8))
plt.pie(df_obama['Approve'],labels=df_obama['Issue'],autopct='%1.1f%%')
plt.title('Pie Chart - Obama Approval Status')
plt.show()
```



Donut Charts:

```
In [6]: plt.figure(figsize=(12,8))

#Creating sum of all statuses
total=[sum(df_obama['Approve']),sum(df_obama['Disapprove']),sum(df_obama['None'])]

#labels
labels=['Approve','Disapprove','None']

#colors
colors=['green','red','blue']

#explosion
explode=(0.05,0.05,0.05)

# Pie Chart
plt.pie(total, colors=colors, labels=labels,
        autopct='%1.1f%', pctdistance=0.85,
        explode=explode)

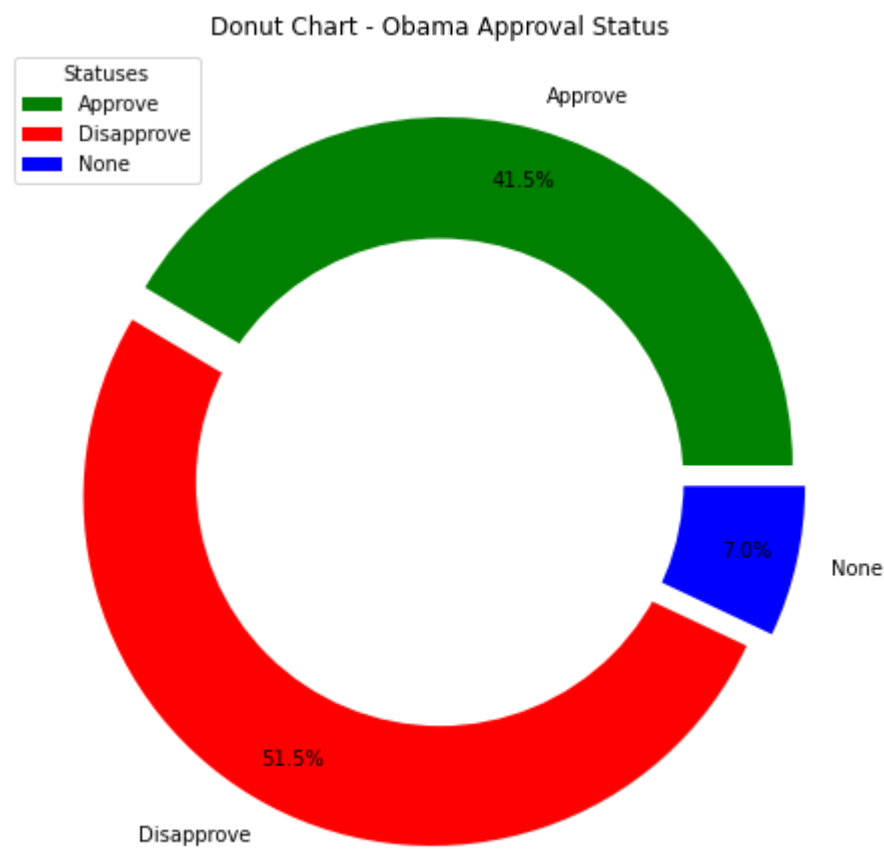
# draw circle
centre_circle = plt.Circle((0, 0), 0.70, fc='white')
fig = plt.gcf()

# Adding Circle in Pie chart
fig.gca().add_artist(centre_circle)

# Adding Title of chart
plt.title('Donut Chart - Obama Approval Status')

# Add Legends
plt.legend(labels, loc="upper left", title="Statuses")

# Show Chart
plt.show()
```



In []: