```
# Week 3 Homework
import pandas as pd
import numpy as np


infile = "/content/cardia.csv"
df_cardia = pd.read_csv(infile)


df_cardia.head()
```

	Unnamed: 0	Group	Coronary Heart Disease	Stroke	Congestive Heart Failure	Unnamed: 5
0	Entire sample	3783	79	54	52	NaN
1	RSFP Exposed	3041	50	40	38	NaN
2	RSFP Never Exposed	742	29	14	14	NaN
3	BSFP Exposed	2543	36	30	28	NaN
4	BSFP Never Exposed	1240	43	24	24	NaN

```
import seaborn as sns


data = {
    'Rows' : ['Entire Sample','RExposed','RNExposed','BExposed','BNExposed','WExposed','WN
    'Coronary Heart Disease': [79, 50, 29, 36, 43, 35, 44],
    'Stroke': [54, 40, 14, 30, 24, 29, 25],
    'Congestive Heart Failure': [52, 38, 14, 28, 24, 25, 27]
}




df = pd.DataFrame(data)


df_melted = df.melt(id_vars='Rows', var_name='Condition', value_name='Count')


sns.set(style="whitegrid")
```

```
import matplotlib.pyplot as plt
plt.figure(figsize=(10, 6))
bar_plot = sns.barplot(data=df_melted, x='Rows', y='Count', hue='Condition')
bar_plot.set_xticklabels(bar_plot.get_xticklabels(), rotation=45, horizontalalignment='rig
plt.title('Count of Conditions by Group')
plt.xlabel('Group')
plt.ylabel('Count')
plt.tight_layout()
plt.show()
```

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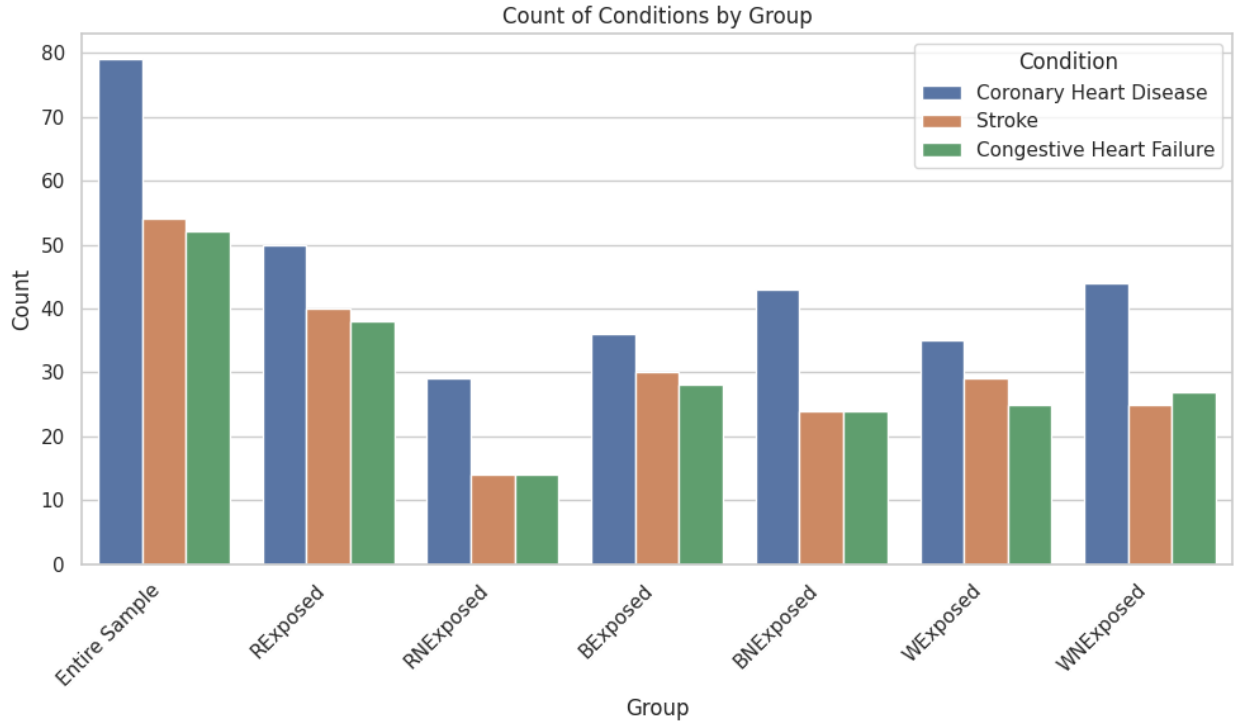
<ipython-input-15-6464f70620d3>:4: UserWarning: FixedFormatter should only be us
  bar_plot.set_xticklabels(bar_plot.get_xticklabels(), rotation=45, horizontalal
```




```
selected_rows = ['RExposed', 'RNExposed']
df_filtered = df[df['Rows'].isin(selected_rows)]


df_filtered_melted = df_filtered.melt(id_vars='Rows', var_name='Condition', value_name='Co


plt.figure(figsize=(10, 6))
grouped_bar_plot = sns.barplot(data=df_filtered_melted, x='Rows', y='Count', hue='Conditio
grouped_bar_plot.set_xticklabels(grouped_bar_plot.get_xticklabels(), rotation=45, horizont
plt.title('Count of Conditions by Group (Selected Rows)')
plt.xlabel('Group')
plt.ylabel('Count')
plt.tight_layout()
plt.show()
```

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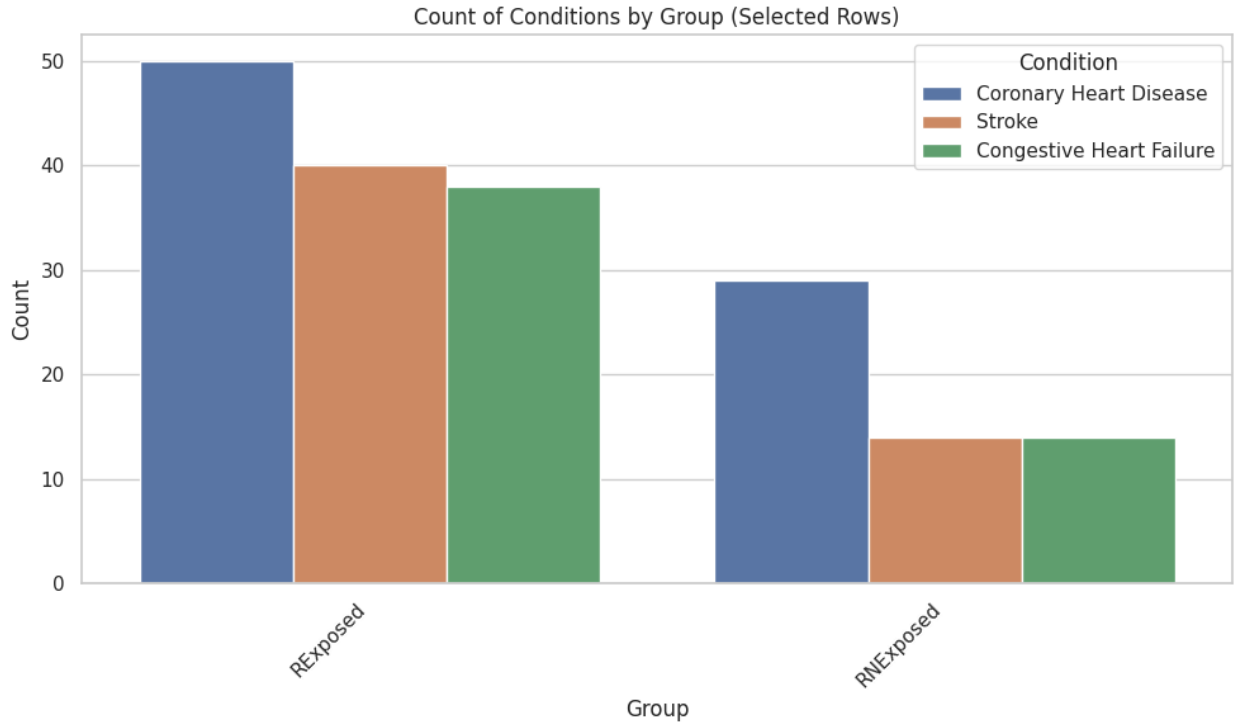
<ipython-input-19-c7c5f5f1b9d5>:3: UserWarning: FixedFormatter should only be us
  grouped_bar_plot.set_xticklabels(grouped_bar_plot.get_xticklabels(), rotation=
```




```
selected_rows1 = ['BExposed', 'BNExposed']
df_filtered1 = df[df['Rows'].isin(selected_rows1)]


df_filtered_melted1 = df_filtered1.melt(id_vars='Rows', var_name='Condition', value_name='


plt.figure(figsize=(10, 6))
grouped_bar_plot = sns.barplot(data=df_filtered_melted1, x='Rows', y='Count', hue='Condition
grouped_bar_plot.set_xticklabels(grouped_bar_plot.get_xticklabels(), rotation=45, horizontal
plt.title('Count of Conditions by Group (Selected Rows)')
plt.xlabel('Group')
plt.ylabel('Count')
plt.tight_layout()
plt.show()
```

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<ipython-input-28-44262b3216fc>:3: UserWarning: FixedFormatter should only be us
  grouped_bar_plot.set_xticklabels(grouped_bar_plot.get_xticklabels(), rotation=
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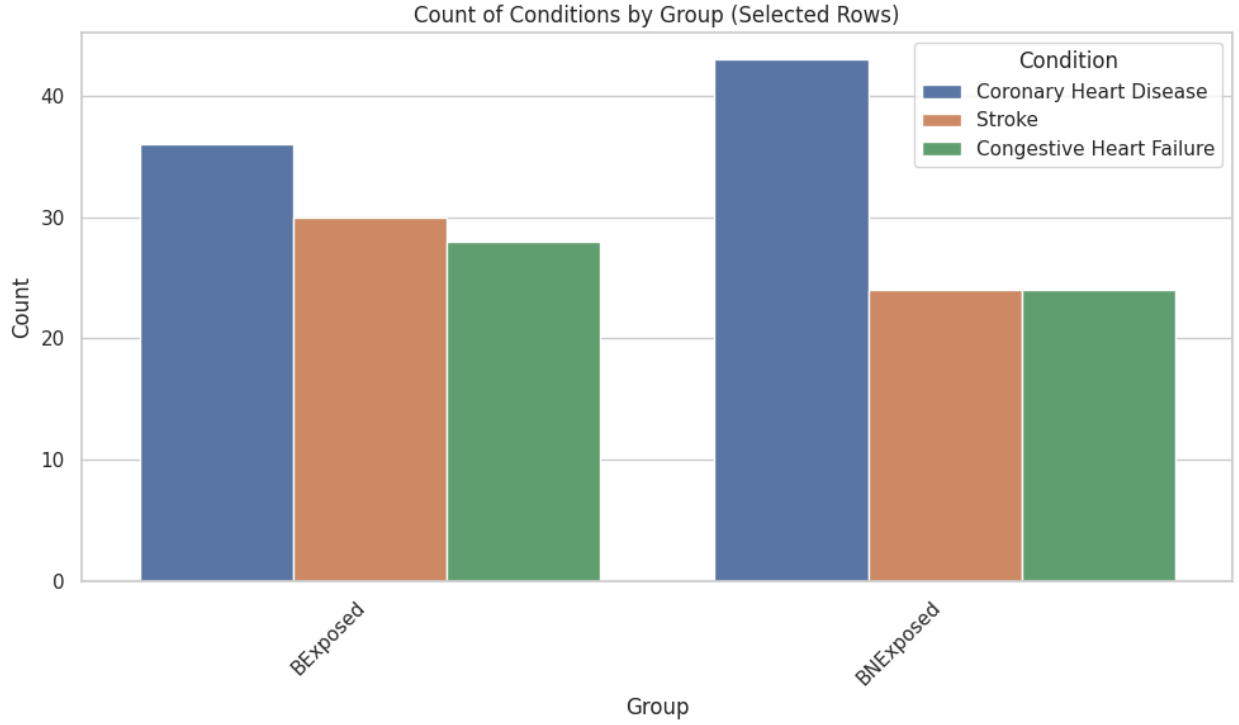


```
selected_rows2 = ['WExposed', 'WNExposed']
df_filtered2 = df[df['Rows'].isin(selected_rows2)]


df_filtered_melted2 = df_filtered2.melt(id_vars='Rows', var_name='Condition', value_name='


plt.figure(figsize=(10, 6))
grouped_bar_plot = sns.barplot(data=df_filtered_melted2, x='Rows', y='Count', hue='Condition
grouped_bar_plot.set_xticklabels(grouped_bar_plot.get_xticklabels(), rotation=45, horizontal
plt.title('Count of Conditions by Group (Selected Rows)')
plt.xlabel('Group')
plt.ylabel('Count')
plt.tight_layout()
plt.show()
```

```
<ipython-input-35-e0c3efbf3f6a>:3: UserWarning: FixedFormatter should only be used toge
  grouped_bar_plot.set_xticklabels(grouped_bar_plot.get_xticklabels(), rotation=45, ho
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