-1CALL LIBRARIES AND THEIR DATA

In [1]:
```
import seaborn as sns
sns.get_dataset_names()
```

Out[1]:
```
['anagrams',
 'anscombe',
 'attention',
 'brain_networks',
 'car_crashes',
 'diamonds',
 'dots',
 'dowjones',
 'exercise',
 'flights',
 'fmri',
 'geyser',
 'glue',
 'healthexp',
 'iris',
 'mpg',
 'penguins',
 'planets',
 'seaice',
 'taxis',
 'tips',
 'titanic']
```

-2COUNTPLOT

(

In [2]:
```
# steps involved in Data visualization
# step-1 import libraries
import seaborn as sns
import matplotlib.pyplot as plt

# step-2 set a theme
sns.set_theme(style="ticks", color_codes=True)

# step-3 import data set you can also import your own data
kashti = sns.load_dataset("titanic")
print(kashti)

# # step-4 plot basic graphs with 1 variable
# p=sns.countplot(x="sex", data=kashti)
# plot.show()

# step-5 plot basic graphs 2 variable(count plot)
p=sns.countplot(x="sex", data=kashti, hue="class")
p.set_title("COUNT PLOT FOR KASHTI")
plot.show()
```

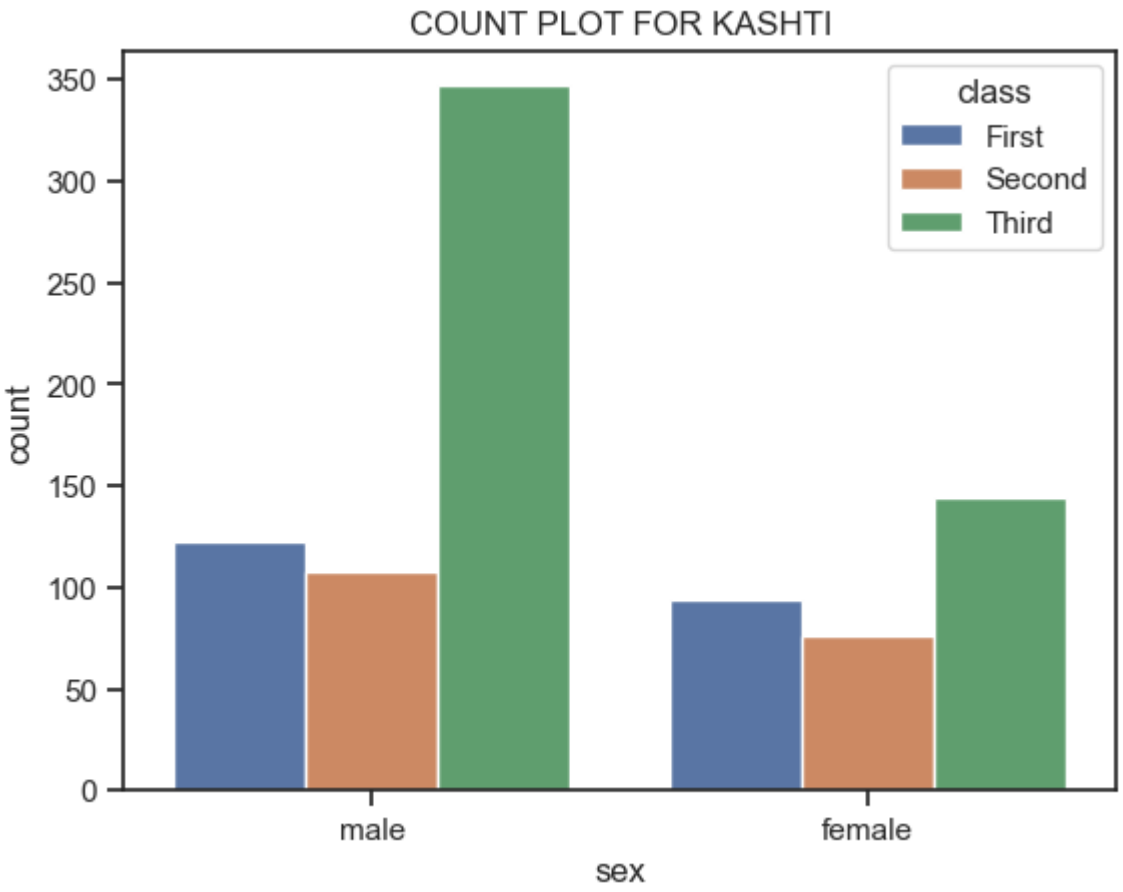
```
     survived  pclass     sex   age  sibsp  parch     fare embarked   class  \
0           0       3    male  22.0      1      0   7.2500        S   Third
1           1       1  female  38.0      1      0  71.2833        C   First
2           1       3  female  26.0      0      0   7.9250        S   Third
3           1       1  female  35.0      1      0  53.1000        S   First
4           0       3    male  35.0      0      0   8.0500        S   Third
..        ...     ...     ...   ...    ...    ...      ...      ...     ...
886         0       2    male  27.0      0      0  13.0000        S  Second
887         1       1  female  19.0      0      0  30.0000        S   First
888         0       3  female   NaN      1      2  23.4500        S   Third
889         1       1    male  26.0      0      0  30.0000        C   First
890         0       3    male  32.0      0      0   7.7500        Q   Third

       who  adult_male deck  embark_town alive  alone
0      man        True  NaN  Southampton    no  False
1    woman       False    C    Cherbourg   yes  False
2    woman       False  NaN  Southampton   yes   True
3    woman       False    C  Southampton   yes  False
4      man        True  NaN  Southampton    no   True
..     ...         ...  ...          ...   ...    ...
886    man        True  NaN  Southampton    no   True
887  woman       False    B  Southampton   yes   True
888  woman       False  NaN  Southampton    no  False
889    man        True    C    Cherbourg   yes   True
890    man        True  NaN   Queenstown    no   True

[891 rows x 15 columns]
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_11332\1422385287.py in <module>
     18 p=sns.countplot(x="sex", data=kashti, hue="class")
     19 p.set_title("COUNT PLOT FOR KASHTI")
---> 20 plot.show()

NameError: name 'plot' is not defined
```



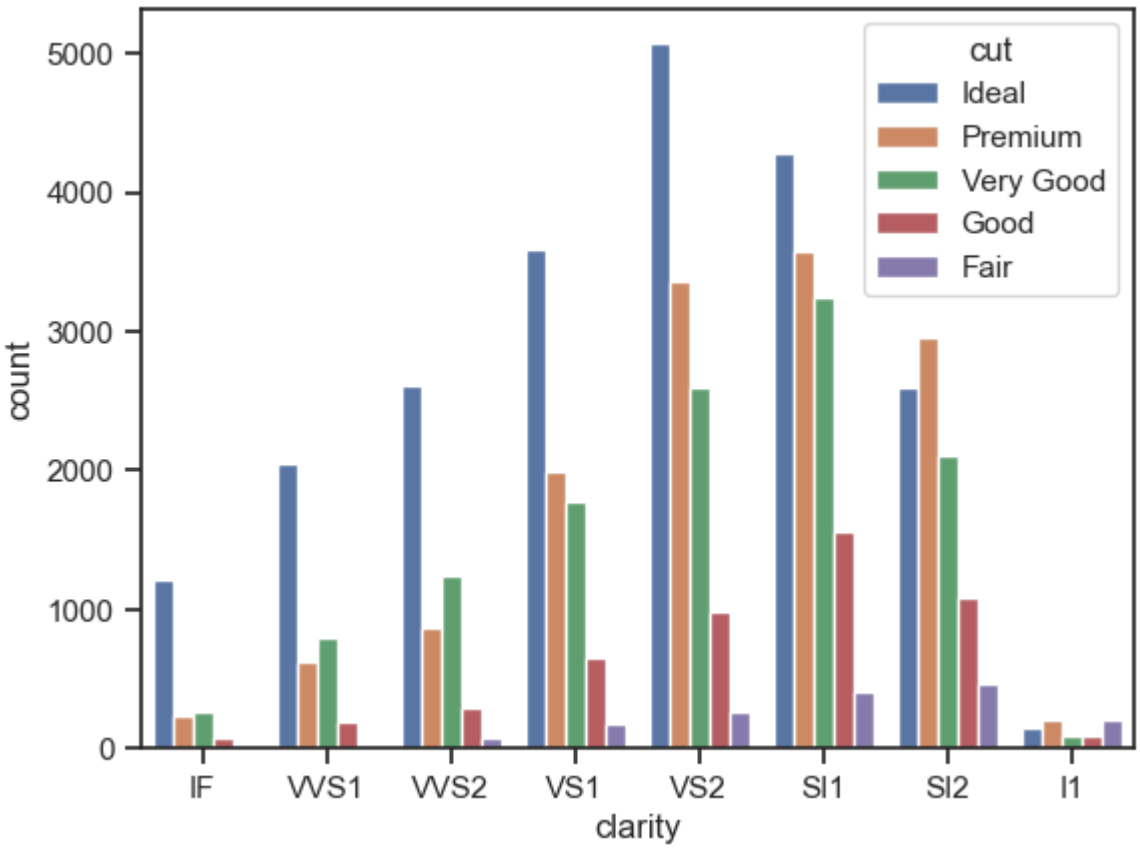
In [2]:
```
import seaborn as sns
import matplotlib.pyplot as plt
sns.set_theme(style="ticks", color_codes=True)
stones=sns.load_dataset("diamonds")
print(stones)
p=sns.countplot(x="clarity", data=stones, hue="cut")
plot.show()
```

```
       carat        cut color clarity  depth  table  price     x     y     z
0       0.23      Ideal     E     SI2   61.5   55.0    326  3.95  3.98  2.43
1       0.21    Premium     E     SI1   59.8   61.0    326  3.89  3.84  2.31
2       0.23       Good     E     VS1   56.9   65.0    327  4.05  4.07  2.31
3       0.29    Premium     I     VS2   62.4   58.0    334  4.20  4.23  2.63
4       0.31       Good     J     SI2   63.3   58.0    335  4.34  4.35  2.75
...      ...        ...   ...     ...    ...    ...    ...   ...   ...   ...
53935   0.72      Ideal     D     SI1   60.8   57.0   2757  5.75  5.76  3.50
53936   0.72       Good     D     SI1   63.1   55.0   2757  5.69  5.75  3.61
53937   0.70  Very Good     D     SI1   62.8   60.0   2757  5.66  5.68  3.56
53938   0.86    Premium     H     SI2   61.0   58.0   2757  6.15  6.12  3.74
53939   0.75      Ideal     D     SI2   62.2   55.0   2757  5.83  5.87  3.64

[53940 rows x 10 columns]
```

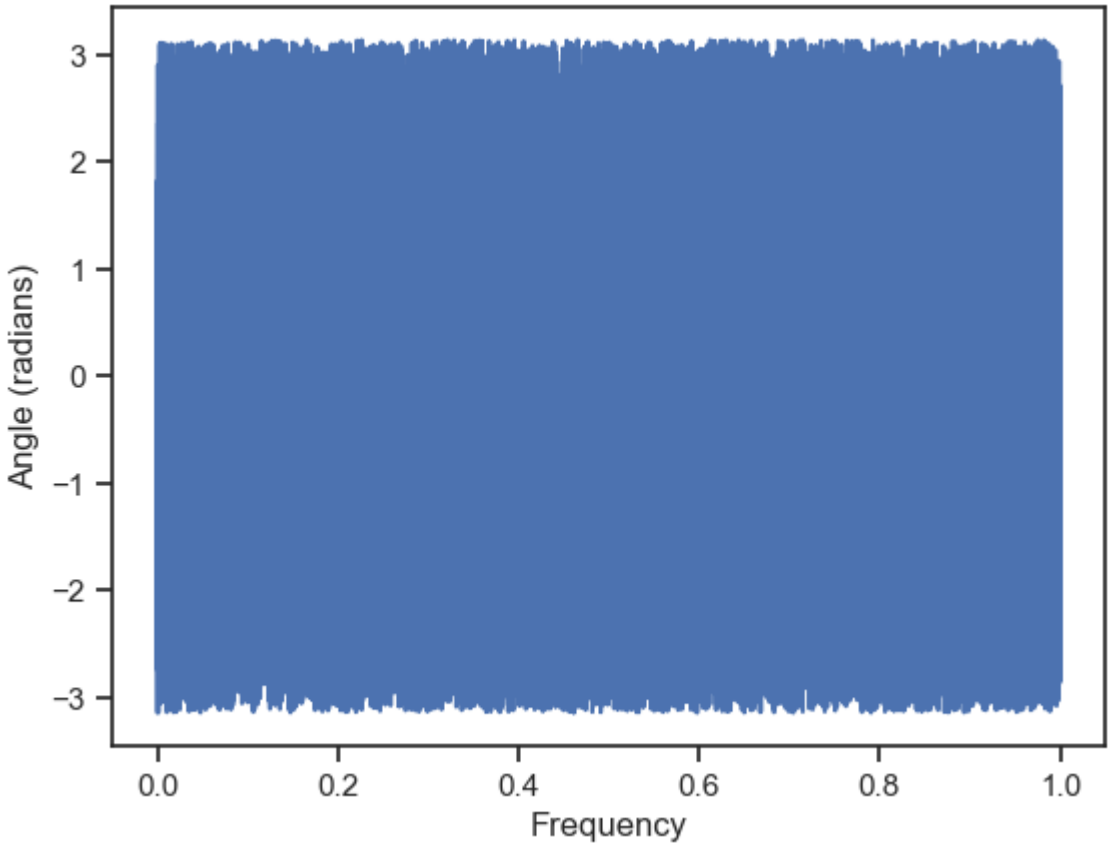
```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_2740\321067232.py in <module>
      5 print(stones)
      6 p=sns.countplot(x="clarity", data=stones, hue="cut")
----> 7 plot.show()

NameError: name 'plot' is not defined
```



In [6]:
```
import seaborn as sns
import matplotlib.pyplot as plt
plt.angle_spectrum(x="depth", data=stones)
```

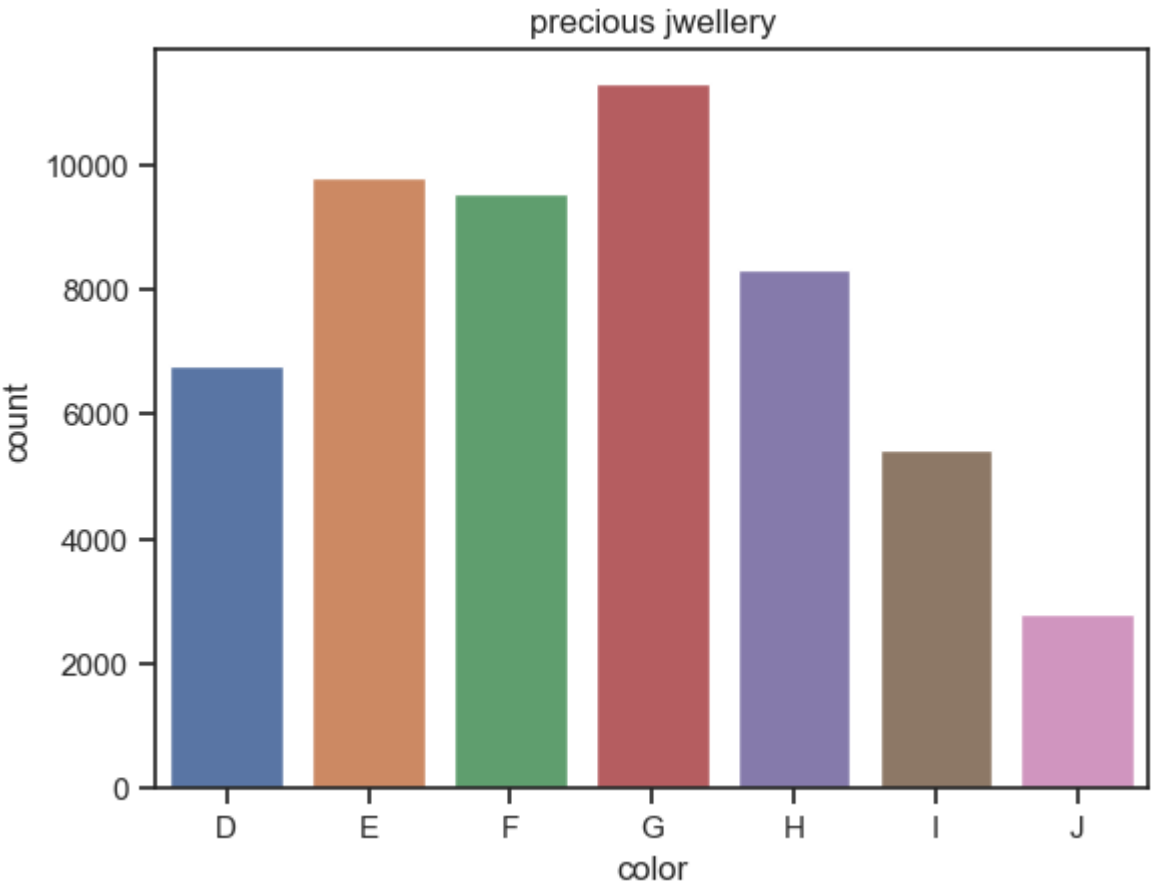
Out[6]:
```
(array([ 0.00000000e+00, -3.14081307e+00, -2.76762918e+00, ...,
        -2.49262018e+00,  1.79047576e+00, -5.00908524e-16]),
 array([0.00000000e+00, 3.70782351e-05, 7.41564702e-05, ...,
        9.99925844e-01, 9.99962922e-01, 1.00000000e+00]),
 <matplotlib.lines.Line2D at 0x1a93b1a3f10>)
```



In [26]:
```
import seaborn as sns
import matplotlib.pyplot as plt
sns.load_dataset("diamonds")
sns.set_style("ticks")
l=sns.countplot(x="color", data=stones)
l.set_title("precious jwellery")
plot.show()
```

```
---------------------------------------------------------------------------
AttributeError                            Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_2740\664984316.py in <module>
      5 l=sns.countplot(x="color", data=stones)
      6 l.set_title("precious jwellery")
----> 7 l.xlim(100)
      8 plot.show()

AttributeError: 'AxesSubplot' object has no attribute 'xlim'
```


precious jwellery
count
10000
8000
6000
4000
2000
0
D
E
F
G
H
I
J
color