This dataset contains the following columns: *Survived, Passenger Class, Name, Sex, Age, Siblings/Spouses Aboard, Parents/Children Aboard,* and *Fare in British Pounds.*

Average cost of 1st class ticket in U.S. Dollars

```
In [3]: #Average cost in U.S. dollars of a first-class ticket
        fst_df = df.loc[df['Passenger Class'] == 1 ]
        Mean_in_British_Pound = fst_df['Fare in British Pounds'].mean(axis=0)

        round(Mean_in_British_Pound * 1.28, 2)
Out[3]: 107.72
```

Count of Passenger over 20 with siblings aboard

```
In [4]: #Passengers over 20 had siblings onboard
        new_df = df.loc[(df['Age'] > 20) & (df['Siblings/Spouses Aboard'] > 1)]
        new_df['Name'].count()
Out[4]: 23
```

Median age of Deceased passengers

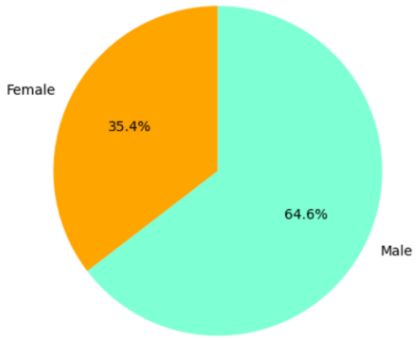
```
In [5]: #Median age of those who did not survive
        mod_df = df.loc[df['Survived'] == 0 ]
        mod_df['Age'].median()
Out[5]: 28.0
```

Pie chart of Passenger count by gender

```
In [50]: #Male and Female count

a = df.groupby(['Sex']).count()["Name"]
print(a)
labels = "Female", "Male"
fig, ax = plt.subplots()
ax.pie(a,  labels=labels,colors= ['orange', 'aquamarine'], autopct='%1.1f%%',
        shadow=False, startangle=90)
ax.axis('equal')
plt.show()
```

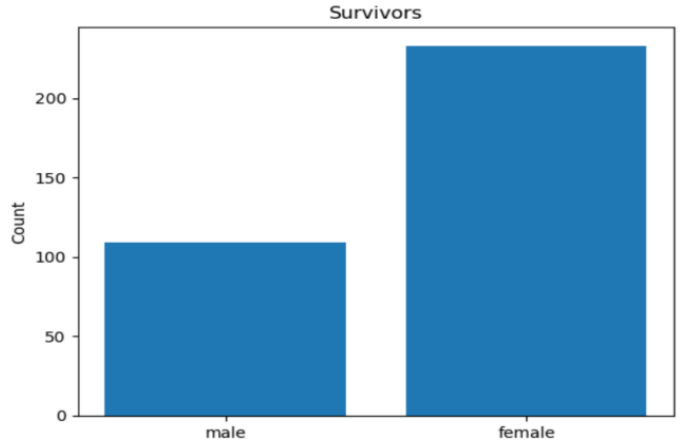
```
Sex
female    314
male      573
Name: Name, dtype: int64
```



Bar graph of Survivor by gender

```
#Count of male and female survivors
m_surv_df = df.query('Sex == "male" & Survived == 1')
mal = m_surv_df['Sex'].count()
f_surv_df = df.query('Sex == "female" & Survived == 1')
fem = f_surv_df['Sex'].count()
x = [mal, fem]
print(x)
labels = ["male", "female"]
plt.xticks(range(len(x)), labels)
plt.xlabel('Gender')
plt.ylabel('Count')
plt.title('Survivors')
plt.bar(range(len(x)), x)
plt.show()
```

```
[109, 233]
```



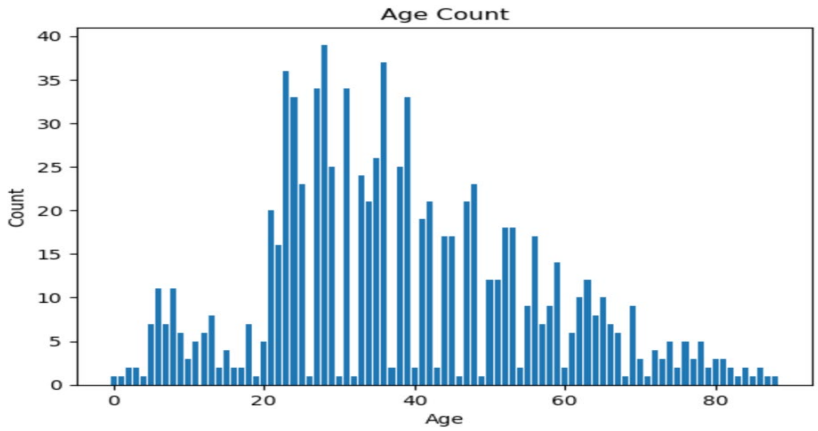
Bar graph of Passenger count by Age

```
a = df.groupby(['Age']).count()["Name"]

plt.bar(range(len(a)),a)

plt.xlabel("Age")
plt.ylabel("Count")
plt.title("Age Count")

plt.show()
```

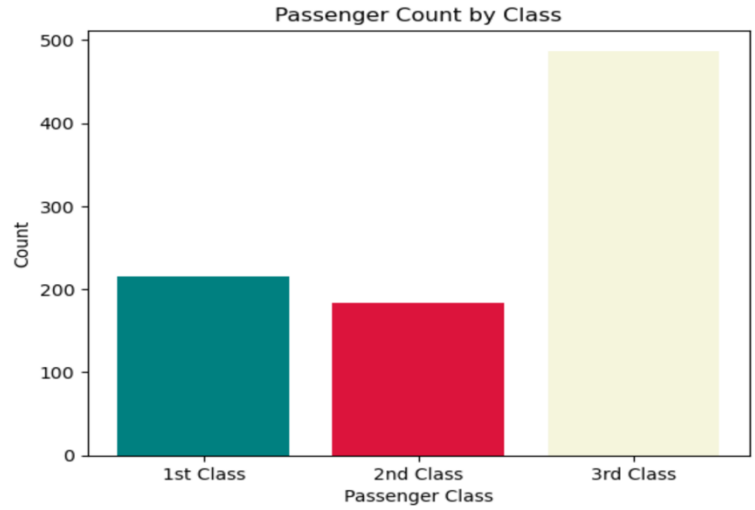


Passenger count by Purchased ticket

```
#Passenger Count by class ticket

b = df.groupby(['Passenger Class']).count()["Name"]
labels = ["1st Class", "2nd Class", "3rd Class"]
fig, ax = plt.subplots()
ax.bar(range(len(b)),b, label= labels, color= ["teal", "crimson", "beige"])
ax.set_xlabel('Passenger Class')
ax.set_ylabel('Count')
ax.set_title('Passenger Count by Class')
plt.xticks(range(len(b)), labels)

plt.show()
```



Total Fare in British Pounds by Gender

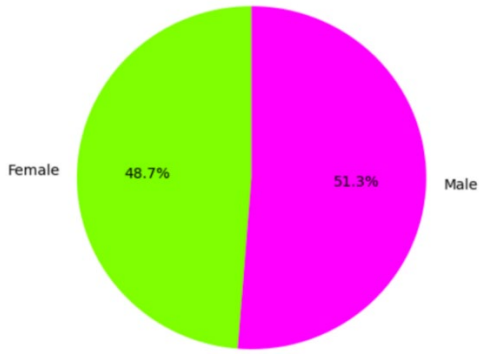
```
#Total Fare by gender

c = df.groupby(['Sex']).sum()["Fare in British Pounds"]
print(c)

labels = "Female", "Male"
fig, ax = plt.subplots()
ax.pie(c,  labels=labels,colors= ['chartreuse', 'magenta'], autopct='%1.1f%%',
        shadow=False, startangle=90)
ax.axis('equal')  # Equal aspect ratio ensures that pie is drawn as a circle.

plt.show()
```

```
Sex
female    13966.6628
male      14688.2449
Name: Fare in British Pounds, dtype: float64
```



Passenger count by gender and status

```
#Passenger Count by gender and status
d = df.groupby(['Survived', "Sex"]).count()["Age"]
print(d)
labels = ["Deceased Female", "Deceased Male", "Female Survivor", "Male Survivor"]
fig, ax = plt.subplots()
ax.barh(range(len(d)),d, label= labels, color= ["red", "blue", "green", "yellow"])
ax.set_xlabel('Count')
ax.set_ylabel('Gender and Status')
ax.set_title('Passenger Count by Gender and Status')
plt.yticks(range(len(d)), labels)
plt.show()
```

```
Survived  Sex
0         female     81
          male      464
1         female    233
          male      109
Name: Age, dtype: int64
```