



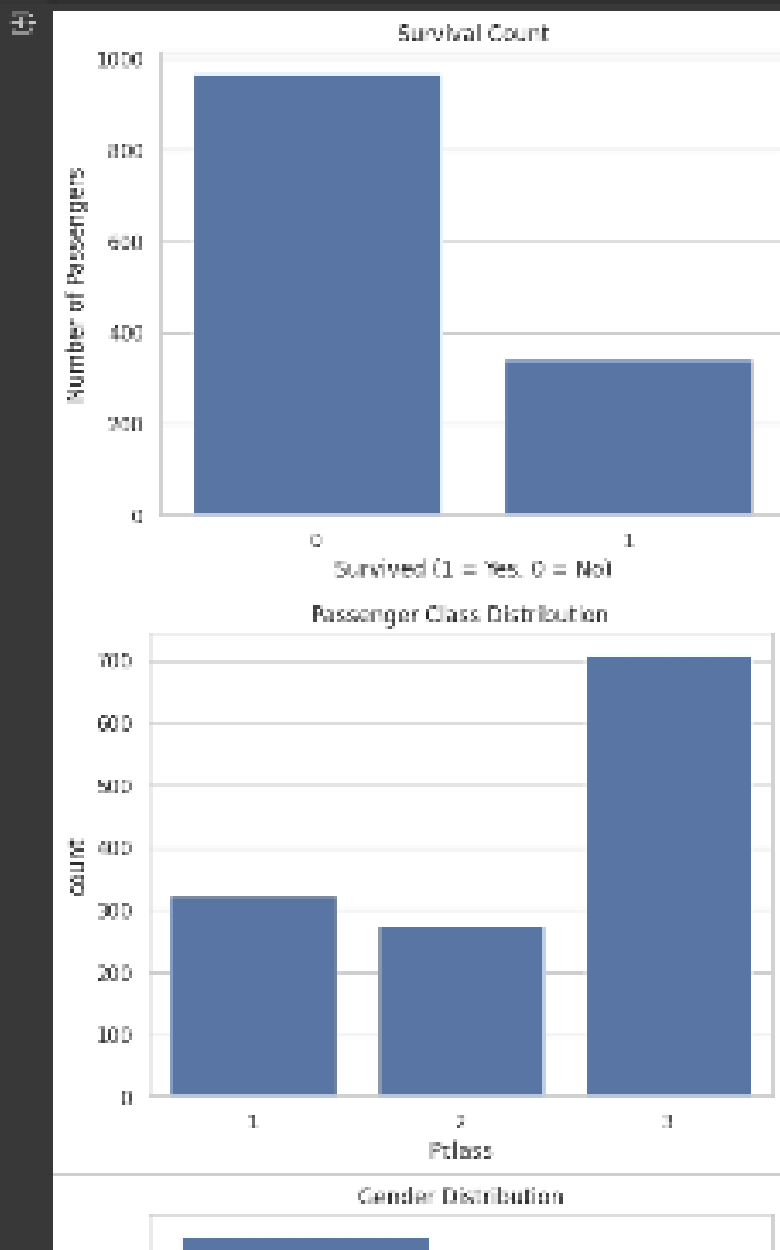
```
[1] # Survival Count
sns.countplot(x='Survived', data=df)
plt.title("Survival Count")
plt.xlabel("Survived (1 = Yes, 0 = No)")
plt.ylabel("Number of Passengers")
plt.show()

# Class Distribution
sns.countplot(x='Pclass', data=df)
plt.title("Passenger Class Distribution")
plt.show()

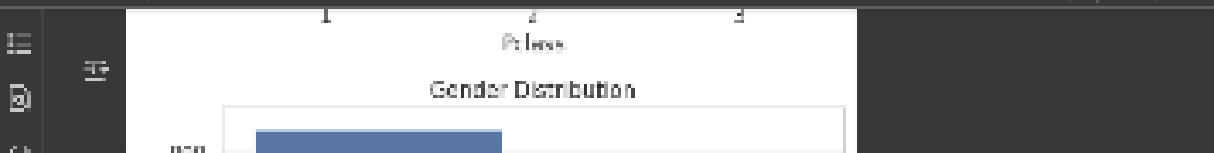
# Gender Distribution
sns.countplot(x='Sex', data=df)
plt.title("Gender Distribution")
plt.show()

# Age Distribution
sns.histplot(df['Age'], edgecolor='black')
plt.title("Age Distribution")
plt.xlabel("Age")
plt.ylabel("Frequency")
plt.show()

# Fare Distribution
sns.histplot(df['Fare'], edgecolor='black')
plt.title("Fare Distribution")
plt.xlabel("Fare")
plt.ylabel("Frequency")
plt.show()
```



✓ # Survival by Sex  
sns.countplot(x='Sex', data=df)



```
1 # Survival by Sex
2 sns.counts(pd.pivot(data, index='Survived', columns='Sex', values='count'))
3 plt.title('Survival by Gender')
4 plt.show()

5 # Survival by Pclass
6 sns.counts(pd.pivot(data, index='Survived', columns='Pclass', values='count'))
7 plt.title('Survival by Passenger Class')
8 plt.show()

9 # Boxplot: Age vs Survival
10 sns.boxplot(data, y='Age', x='Survived')
11 plt.title('Age Distribution by Survival')
12 plt.show()

13 # Boxplot: Fare vs Survival
14 sns.boxplot(data, y='Fare', x='Survived')
15 plt.title('Fare Distribution by Survival')
16 plt.show()

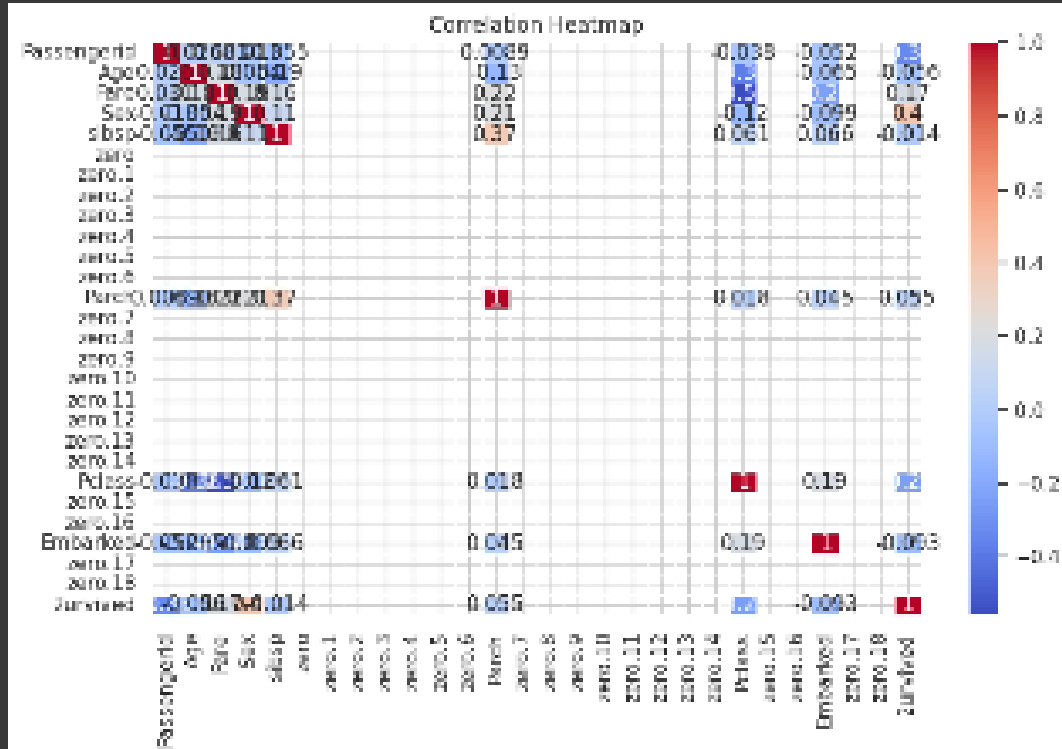
17 # Age vs Fare Scatterplot
18 sns.scatterplot(data, y='Fare', x='Age', hue='Survived')
19 plt.title('Age vs Fare (Colored by Survival)')
20 plt.show()
```



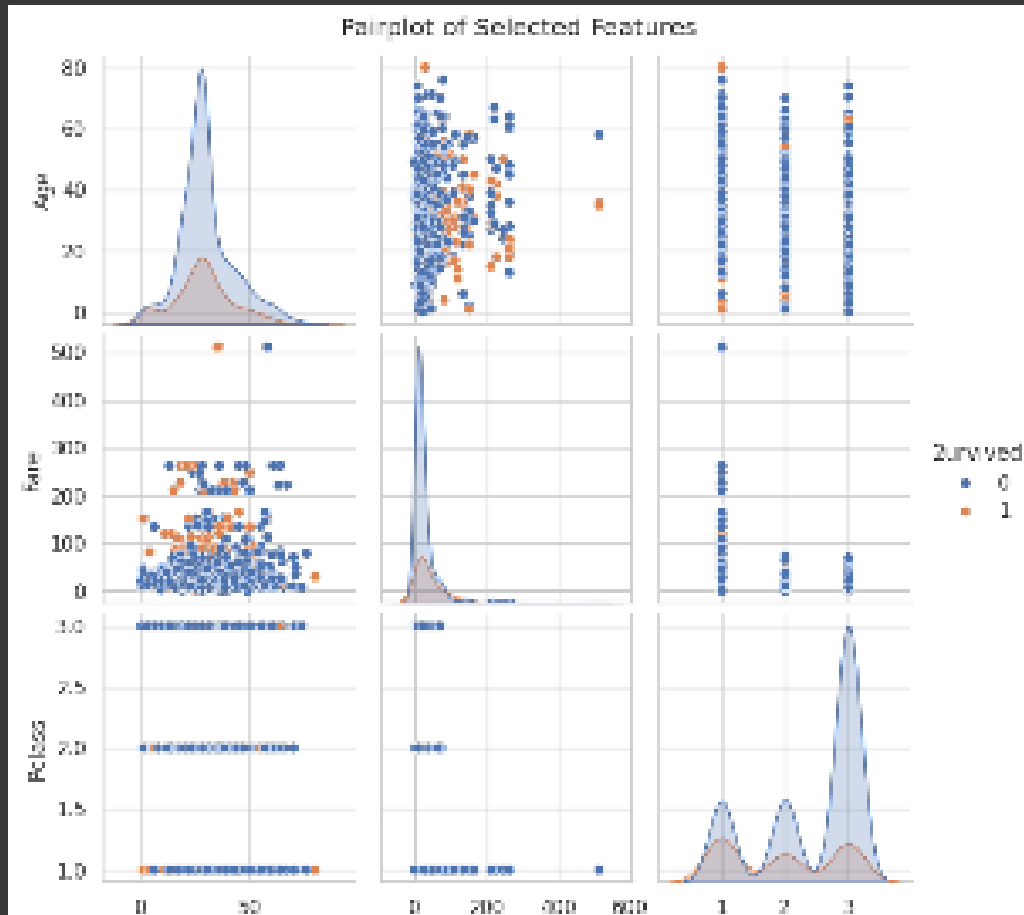


```
%% Only numeric columns
corr = df.corr()

# Heatmap
plt.figure(figsize=(12,8))
sns.heatmap(corr, annot=True, cmap='coolwarm', linewidth=0.5)
plt.title('Correlation Heatmap')
plt.show()
```



```
%% Pair plot of selected features
sns.pairplot(df[['Survived', 'Age', 'Fare', 'Pclass']], hue='Survived')
plt.suptitle('Pair plot of Selected Features', y=1.02)
plt.show()
```





Untitled4.ipynb

File Edit View Insert Runtime Tools Help



Share



Gemini



Commands

+ Code + Text

Run all



RAM  
Disk



## KEY INSIGHTS:



1. Female passengers had a much higher survival rate than males.
2. Passengers in 1st class had better chances of survival.
3. Younger passengers (children) also had higher survival rates.
4. Fare shows a positive correlation with survival - higher fare passengers
5. Age and Fare are slightly correlated with each other.
6. 'Cabin' and 'Ticket' might need additional feature engineering due to



Variables

Terminal



11:24 AM

Python 3