import pandas as pd

import seaborn as sns

import matplotlib.pyplot as plt

# Read data from CSV file

df = pd.read\_csv('titanic.csv')

# Set the style of seaborn

sns.set(style="whitegrid")

# Count Plot for Survived

plt.figure(figsize=(8, 6))

sns.countplot(x='Survived', data=df)

plt.title('Count of Survived Passengers')

plt.show()

# Count Plot for Pclass

plt.figure(figsize=(8, 6))

sns.countplot(x='Pclass', data=df)

plt.title('Count of Passengers by Class')

plt.show()

# Distribution of Age

plt.figure(figsize=(8, 6))

sns.histplot(df['Age'].dropna(), kde=True, bins=30)

plt.title('Distribution of Age')

plt.xlabel('Age')

plt.show()

# Box Plot for Fare by Pclass

plt.figure(figsize=(8, 6))

sns.boxplot(x='Pclass', y='Fare', data=df)

plt.title('Fare Distribution by Class')

plt.show()

# Heatmap of Correlation between numerical features

plt.figure(figsize=(10, 8))

sns.heatmap(df.corr(), annot=True, cmap='coolwarm', linewidths=0.5)

plt.title('Correlation Heatmap')

plt.show()

sns.relplot(x='Age', y='Fare', data=df, kind='scatter')

plt.show()