import pandas as pd

import numpy as np

import matplotlib.pyplot as plt

import seaborn as sns

# Load the Titanic dataset from Kaggle

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

# Explore the data

print(df.head())

print(df.shape)

print(df.describe())

print(df.dtypes)

print(df.isnull().sum())

# Clean the data

# Remove rows with missing values

df.dropna(inplace=True)

# Fill missing values with a specific value

df['Age'].fillna(df['Age'].mean(), inplace=True)

# Data visualization

# Bar plot

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

plt.xlabel('Survival Status')

plt.ylabel('Count')

plt.title('Survival Count')

plt.show()

# Histogram

plt.hist(df['Age'], bins=10)

plt.xlabel('Age')

plt.ylabel('Frequency')

plt.title('Distribution of Age')

plt.show()

# Scatter plot

plt.scatter(df['Age'], df['Fare'])

plt.xlabel('Age')

plt.ylabel('Fare')

plt.title('Age vs. Fare')

plt.show()

# Box plot

sns.boxplot(x=df['Survived'], y=df['Fare'])

plt.xlabel('Survival Status')

plt.ylabel('Fare')

plt.