load the titanic dataset into python to perform EDA.

import pandas as pd

import numpy as np

import seaborn as sns

#Load the data

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

print(df)

#View the data

df.head()

print(df)

print('\n')

#Basic information

df.info()

print(df)

print('\n')

#Describe the data

df.describe()

print(df)

#Find the duplicates

df.duplicated().sum()

print(df)

#unique values

print(df['Pclass'].unique())

print(df['Survived'].unique())

print(df['Sex'].unique())

#Plot the unique values

import seaborn as sns

import matplotlib.pyplot as plt

# Plotting the counts of the 'Pclass' column

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

# Getting unique values in the 'Pclass' column

unique\_values = df['Pclass'].unique()

print("Unique values in Pclass:", unique\_values)

# Show the plot

plt.show()

df['Pclass'].unique()

print(df)

import seaborn as sns

import matplotlib.pyplot as plt

# Display the countplot

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

# Show the plot

plt.show()

unique\_values = df['Pclass'].unique()

print("Unique values in Pclass:", unique\_values)

#Find null values

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

df.replace(np.nan,'0',inplace = True)

#Check the changes now

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

#Datatypes

print(df.dtypes)

#Filter data

print(df[df['Pclass']==1].head())

#Boxplot

df[['Fare']].boxplot()

plt.show()

numeric\_df = df.select\_dtypes(include=['number'])

correlation\_matrix = numeric\_df.corr()

print(correlation\_matrix)

import pandas as pd

import seaborn as sns

import matplotlib.pyplot as plt

# Select only numeric columns for correlation calculation

numeric\_df = df.select\_dtypes(include=['number'])

# Compute the correlation matrix

correlation\_matrix = numeric\_df.corr()

# Plot the correlation heatmap

sns.heatmap(correlation\_matrix, annot=True, cmap="coolwarm", fmt=".2f")

plt.title("Correlation Heatmap")

plt.show()

output:-