import matplotlib

from matplotlib import pyplot as plt

import pandas as pd

import seaborn as sns

import numpy as np

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

df=df.head()

print("Data Set :\n")

print(df)

fig=plt.figure()

plt.title('Histogram')

plt.hist(df['mpg'],bins=3)

fig=plt.figure()

x=df.wt

y=df.mpg

plt.xlabel("weight of the car")

plt.ylabel("MPG")

plt.title('Scatter plot to determine the relationship between weight of the car and mpg')

plt.scatter(x,y)

fig=plt.figure()

plt.title('Bar Graph')

x=df.model

y=df.mpg

plt.bar(x,y)

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

fig=plt.figure()

plt.title('Box plot of MPG')

sns.boxplot(df['mpg'])

print("Interprting the fiv - number summary:\n")

print(np.mean(df.mpg))

print(np.sum(df.mpg))

print(np.median(df.mpg))

print(np.std(df.mpg))

print(np.var(df.mpg))

import pandas as pd

df = pd.DataFrame({

'book\_name':['Book1','Book2','Book3','Book4','Book1','Book2','Book3','Book5'],

'book\_type':['Math','Physics','Computer','Science','Math','Physics','Computer','English'],

'book\_id':[1,2,3,4,1,2,3,5]})

print("Original Orders DataFrame:\n")

print(df)

print("\nNew column with count from groupby:\n")

result = df.groupby(["book\_name", "book\_type"])["book\_type"].count().reset\_index(name="count")

print(result)