#Matrix Addition

matrix\_a= [[4,6,4],[6,6,6],[1,2,2]]

matrix\_b= [[8,8,8],[3,2,3],[1,1,1]]

matrix\_sum= [[0,0,0],[0,0,0],[0,0,0]]

for i in range(len(matrix\_a):

for j in range(len(matrix\_a[i])):

matrix\_sum[i][j]= matrix\_a[i][j] + matrix\_b[i][j]

print(matrix\_sum)

# Matrix Multiplication

matrix\_a= [[1,1,1],[1,1,1],[1,1,1]]

matrix\_b= [[2,2,2],[2,2,2],[2,2,2]]

matrix\_mul= [[0,0,0],[0,0,0],[0,0,0]]

for i in range(len(matrix\_a)):

for j in range(len(matrix\_a[i])):

for k in range(len(matrix\_a)):

matrix\_mul[i][j]+= matrix\_a[i][k] \* matrix\_b[k][j]

print(matrix\_mul)

#import libraries

import pandas as pd

import matplotlib.pyplot as plt

import seaborn as sns

%matplotlib inline

#Import Iris Dataset & viewing in table format

csv\_url = 'https://archive.ics.uci.edu/ml/machine-learning-databases/iris/iris.data'

col\_names = ['Sepal\_Length','Sepal\_Width','Petal\_Length','Petal\_Width','Class']

iris = pd.read\_csv(csv\_url, names = col\_names)

iris.head()

# printing some of the dataset display values

print(iris.index)

print(iris.columns)

print(iris.sort\_index(axis=1, ascending=False).head(10))

print(iris.sort\_values(by='Petal\_Width').head(10))

print(iris['Sepal\_Length'].head())

print(iris[0:5])

print(iris.loc[0:10, ['Sepal\_Length', 'Petal\_Length']])

print(iris.loc[0, ['Sepal\_Length', 'Petal\_Length']])

print(iris.loc[0, 'Petal\_Length'])

print(iris['Petal\_Length'].head())

print(iris.Sepal\_Length.head())

print(iris.loc[0])

print(iris.iloc[0:3, 0:4])

print(iris.iat[0,0])

# Viewing Iris Dataset in Scatter Plot format

plt.scatter(iris['Petal\_Length'],iris['Petal\_Width'],color='red')

plt.title("Scatter Plot for bivariate analysis")

plt.xlabel("Petal Length")

plt.ylabel("Petal Width")

# Viewing Iris Dataset in Histogram format

plt.hist(iris['Sepal\_Width'],bins=20)

plt.title("Histogram for Sepal Width")

plt.xlabel('Sepal Width')

plt.ylabel('Frequency')

plt.show()

# Viewing Iris Dataset in BarPlot format

sns.barplot(iris['Class'],iris['Sepal\_Length'])

plt.title("BarPlot");