**Programming Assignment 8**

Q.1) Write a Python Program to Add Two Matrices?

Ans.)

mat1 = [[1,2,3],

        [6, -4, -9],

        [3,6,9]]

mat2 = [[6,9,3],

        [1,-1,1],

        [0, 9, 11]]

result = []

for i in range(len(mat1)):

    row = []

    for j in range(len(mat1)):

        row.append(mat1[i][j]+mat2[i][j])

    result.append(row)

result

Q.2) Write a Python Program to Multiply Two Matrices?

Ans.)

A = [[12, 7, 3],

    [4, 5, 6],

    [7, 8, 9]]

B = [[5, 8, 1, 2],

    [6, 7, 3, 0],

    [4, 5, 9, 1]]

result = [[0, 0, 0, 0],

        [0, 0, 0, 0],

        [0, 0, 0, 0]]

for i in range(len(A)):

    for j in range(len(B[0])):

        for k in range(len(B)):

            result[i][j] += A[i][k] \* B[k][j]

for r in result:

    print(r)

Q.3) Write a Python Program to Transpose a Matrix?

Ans.)

X = [[12,7],

    [4 ,5],

    [3 ,8]]

result = [[0,0,0],

         [0,0,0]]

# iterating through rows

for i in range(len(X)):

   # iterating through columns

   for j in range(len(X[0])):

        result[j][i] = X[i][j]

for r in result:

    print(r)

Q.4) Write a Python Program to Sort Words in Alphabetic Order?

Ans.)

try:

    sentance = input("Enter the words: ")

    words = [word.lower() for word in sentance.split()]

    words.sort()

    print("Sorted order of words:")

    for word in words:

        print(word, end = ' ')

except Exception as e:

    print(e)

Q.5) Write a Python Program to Remove Punctuation From a String?

Ans.)

punctuations = '''!()-[]{};:'"\,<>./?@#$%^&\*\_~'''

string = input("Enter the string: ")

outputString = ""

for char in string:

    if char not in punctuations:

        outputString += char

print(outputString)