**Programming Assignment\_8**

**1. Write a Python Program to Add Two Matrices?**

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

**2. Write a Python Program to Multiply Two Matrices?**

# Take 3x3 matrix

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)

**3. Write a Python Program to Transpose a Matrix?**

# Program to transpose a matrix using a nested loop

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)

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

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)

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

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

string = input("Enter the string: ")

outputString = ""

for char in string:

if char not in punctuations:

outputString += char

print(outputString)