#### **Programming Assignment\_8**

1. Write a Python Program to Add Two Matrices?
2. Write a Python Program to Multiply Two Matrices?
3. Write a Python Program to Transpose a Matrix?
4. Write a Python Program to Sort Words in Alphabetic Order?
5. Write a Python Program to Remove Punctuation From a String?

Q 1: Write a Python Program to Add Two Matrices?

Solution :

**def add\_Matrices(lis1, lis2):  
 sum = []  
 for i in range(len(lis1)):  
 row = []  
 for j in range(len(lis1[0])):  
 row.append(lis1[i][j] + lis2[i][j])  
 sum.append(row)  
 return sum  
  
if \_\_name\_\_ == '\_\_main\_\_':  
 lis1 = [[12, 7, 3],  
 [4, 5, 6],  
 [7, 8, 9]]  
 lis2 = [[5, 8, 1],  
 [6, 7, 3],  
 [4, 5, 9]]  
 print(add\_Matrices(lis1,lis2))**

Q 2: Write a Python Program to Multiply Two Matrices?

Solution :

**def mul\_Matrices(lis1, lis2):  
 sum = []  
 for i in range(len(lis1)):  
 row = []  
 for j in range(len(lis2[0])):  
 r = 0  
 for k in range(len(lis2)):  
 r += lis1[i][k] \* lis2[k][j]  
 row.append(r)  
 sum.append(row)  
 return sum  
  
if \_\_name\_\_ == '\_\_main\_\_':  
 lis1 = [[12, 7, 3],  
 [4, 5, 6],  
 [7, 8, 9]]  
 lis2 = [[5, 8, 1],  
 [6, 7, 3],  
 [4, 5, 9]]  
 print(mul\_Matrices(lis1,lis2))**

Q 3: Write a Python Program to Transpose a Matrix?

Solution :

**def transpose\_Matrices(lis):  
 res = []  
 for i in range(len(lis)):  
 rows = []  
 for j in range(len(lis[0])):  
 rows.append(lis[j][i])  
 res.append(rows)  
 return res  
  
if \_\_name\_\_ == '\_\_main\_\_':  
 lis = [[12, 7, 3],  
 [4, 5, 6],  
 [7, 8, 9]]  
 print(transpose\_Matrices(lis))**

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

Solution :

**def fun():  
 alpha = input("Enter any string: ")  
  
 result = alpha.split()  
  
 result.sort()  
 print(result)  
  
 for rr in result:  
 print(rr)  
  
fun()**

Q 5: Write a Python Program to Remove Punctuation From a String? Solution :

**import string  
def remove\_Punc(wordList):  
 for c in string.punctuation:  
 wordList = wordList.replace(c, "")  
 return wordList  
  
if \_\_name\_\_ == '\_\_main\_\_':  
 str = "Write ;a Python, Program# to Remove? Punctuation From a String?"  
 print(remove\_Punc(str))**