

# 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?

In [18]: *#1 Write a Python Program to Add Two Matrices?*

```
X = [[12,7,3],
      [4 ,5,6],
      [7 ,8,9]]

Y = [[5,8,1],
      [6,7,3],
      [4,5,9]]
Z=[]

for i in range (len(X)):
    t=[]
    for j in range (len(X[i])):
        t.append(X[i][j]+Y[i][j])
    Z.append(t)
print('Addition of maticies X and Y is ', Z)
```

Addition of maticies X and Y is [[17, 15, 4], [10, 12, 9], [11, 13, 18]]

In [129... 2 Write a Python Program to Multiply Two Matrices?

```
X = [[12,7,3,8],
      [4 ,5,6,8],
      [7 ,8,9,5]]

Y = [[1,8,1],
      [1,7,3],
      [1,51,9],
      [1,15,9]]
Z=[]

for i in range (len(X)):
    t=[]

    for j in range (len(Y[i])):

        m=0
        for k in range(len(Y)):
            m +=X[i][k]*Y[k][j]

        t.append(m)

    Z.append(t)

print('Multiplication of matrices X and Y is ', Z)
```

Object `Matrices` not found.

Multiplication of matrices X and Y is [[30, 418, 132], [23, 493, 145], [29, 646, 157]]

In [156...

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

```

X = [[12,7,3,8],
      [4 ,5,6,8],
      [7 ,8,9,5]]

Y = [[1,8,1],
      [1,7,3],
      [1,51,9],
      [1,15,9]]

Z=[[0 for range in range(len(X))] for y in range (len(X[0]))]
for i in range(len(X)):
    for j in range(len(X[i])):

        Z[j][i]=X[i][j]

print('Transposition of {} is '.format(X), Z)

```

Transposition of [[12, 7, 3, 8], [4, 5, 6, 8], [7, 8, 9, 5]] is [[12, 4, 7], [7, 5, 8], [3, 6, 9], [8, 8, 5]]

In [167...

```

#4. Write a Python Program to Sort Words in Alphabetic Order?
sentence = str(input('Enter a sentence to sort alphabetically: '))
lst = sentence.split()
lst.sort()
for word in lst:
    print(word)

```

Enter a sentence to sort alphabetically: Enter a sentence to sort alphabetically:  
 Enter  
 a  
 alphabetically:  
 sentence  
 sort  
 to

In [175...

```

#5. Write a Python Program to Remove Punctuation From a String?
punctuations = '''!()-[]{};:'"\,<>./?@#$%^&*~_'''
sentence = str(input('Enter a sentence to sort alphabetically: '))

for x in sentence:
    if x in punctuations:
        sentence=sentence.replace(x, ' ')

```

Enter a sentence to sort alphabetically: asdf 34asd ,. 23/?';

In [176...

sentence

Out[176...

'asdf 34asd 23 '

In [ ]: