

# Python Basic Programming Assignment 8

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

In [1]:

```
1 X = [[1,2,3],
2       [4,5,6],
3       [7,8,9]]
4
5 Y = [[9,8,7],
6       [6,5,4],
7       [3,2,1]]
8
9
10 result = [[0,0,0],
11            [0,0,0],
12            [0,0,0]]
13
14 # iterate through rows
15 for i in range(len(X)):
16     # iterate through columns
17     for j in range(len(X[0])):
18         result[i][j] = X[i][j] + Y[i][j]
19
20 for r in result:
21     print(r)
```

```
[10, 10, 10]
[10, 10, 10]
[10, 10, 10]
```

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

In [2]:

```

1  A = [[12, 7, 3],
2       [4, 5, 6],
3       [7, 8, 9]]
4
5  # take a 3x4 matrix
6  B = [[5, 8, 1, 2],
7       [6, 7, 3, 0],
8       [4, 5, 9, 1]]
9
10 result = [[0, 0, 0, 0],
11           [0, 0, 0, 0],
12           [0, 0, 0, 0]]
13
14 # iterating by row of A
15 for i in range(len(A)):
16
17     # iterating by column by B
18     for j in range(len(B[0])):
19
20         # iterating by rows of B
21         for k in range(len(B)):
22             result[i][j] += A[i][k] * B[k][j]
23
24 for r in result:
25     print(r)

```

```

[114, 160, 60, 27]
[74, 97, 73, 14]
[119, 157, 112, 23]

```

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

In [3]:

```

1  X = [[12,7],
2       [4 ,5],
3       [3 ,8]]
4
5  result = [[0,0,0],
6           [0,0,0]]
7
8  # iterate through rows
9  for i in range(len(X)):
10     # iterate through columns
11     for j in range(len(X[0])):
12         result[j][i] = X[i][j]
13
14 for r in result:
15     print(r)

```

```

[12, 4, 3]
[7, 5, 8]

```

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

In [7]:

```
1 # take input from the user
2 my_str = input("Enter a string: ")
3
4 # breakdown the string into a list of words
5 words = my_str.split()
6
7 # sort the list
8 words.sort()
9
10 # display the sorted words
11 for word in words:
12     print(word)
```

Enter a string: Iam very happy today  
Iam  
happy  
today  
very

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

In [10]:

```
1 punctuation = '!"#$%^&*(){}[];:'.',./?'
2 input_str = "Hi!!$% this i&*&^s Anil ()S Adiga{}"
3 # Taking Input from user
4 # input_str = input("Enter string: ")
5 # removing punctuations from the input string using a for loop
6 # putting edited string in new_str
7 new_str = input_str
8 for char in input_str:
9     if char in punctuation:
10         new_str = new_str.replace(char, "")
11 # display the unpunctuated string
12 print(new_str)
```

Hi this is Anil S Adiga

In [ ]:

```
1
```