Python Basic Programming Assignment 8

1. Write a Python Program to Add Two Matrices?

```
In [6]:  a=[[4,5,6],
          [8,2,5],
          [12,41,63]]
        b=[[9,3,4],
          [11,7,2],
          [21,69,96]]
        c=[[0,0,0],
          [0,0,0],
          [0,0,0]]
        for i in range(len(a)):
            for j in range(len(a[0])):
                c[i][j]=a[i][j]+b[i][j]
        print(c)
```

```
[[13, 8, 10], [19, 9, 7], [33, 110, 159]]
```

2. Write a Python Program to Multiply Two Matrices?

```
In [7]:  A = [[12, 7, 3],
            [4, 5, 6],
            [7, 8, 9]]

        # take a 3x4 matrix
        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]]

        # iterating by row of A
        for i in range(len(A)):

            # iterating by column by B
            for j in range(len(B[0])):

                # iterating by rows of B
                for k in range(len(B)):
                    result[i][j] += A[i][k] * B[k][j]

        for r in result:
            print(r)
```

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

3. Write a Python Program to Transpose a Matrix?

```
In [8]: a=[[4,5,6],
           [8,2,5],
           [12,41,63]]
        b=[[1,1,1],
           [1,1,1],
           [1,1,1]]
        for i in range(len(a)):
            for j in range(len(a[0])):
                b[j][i]=a[i][j]
        print(b)
```

```
[[4, 8, 12], [5, 2, 41], [6, 5, 63]]
```

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

```
In [9]: a=["chiku","apple","cat","banana"]
        a.sort()
        print(a)
```

```
['apple', 'banana', 'cat', 'chiku']
```

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

```
In [11]: import string

         test_str = 'Gfg, is best: for ! Geeks ;'

         test_str = test_str.translate(str.maketrans('', '', string.punctuation))
         print(test_str)
```

```
Gfg is best for  Geeks
```