

Programming Assignment-8

1. Write a Python Program to Add Two Matrices?

Program to add two matrices using list comprehension

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

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

```
result = [[X[i][j] + Y[i][j] for j in range(len(X[0]))] for i in range(len(X))]
```

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

2. Write a Python Program to Multiply Two Matrices?

import numpy as np

take a 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]]
```

```
result = np.dot(A,B)
```

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

3. Write a Python Program to Transpose a Matrix?

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

```
result = [[X[j][i] for j in range(len(X))] for i in range(len(X[0]))]
```

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

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

```
my_str = "Hello this Is an Example With cased letters"

# To take input from the user
#my_str = input("Enter a string: ")

words = [word.lower() for word in my_str.split()]

words.sort()

print("The sorted words are:")
for word in words:
    print(word)
```

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

```
def Punctuation(string):

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

    # traverse the given string and if any punctuation
    # marks occur replace it with null
    for x in string.lower():
        if x in punctuations:
            string = string.replace(x, "")

    # Print string without punctuation
    print(string)

string = "Welcome???@###$ to#$% Geeks%$^for$%^&Geeks"
Punctuation(string)
```