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?

**Solution: 1**

import numpy as np

no\_of\_rows\_for\_mat1 = int(input("Enter the number of rows for matrix 1 "))

no\_of\_columns\_for\_mat1 = int(input("Enter the number of columns for matrix 1 "))

arr1 = list(map(int, input().split()))

input\_array1= np.array(arr).reshape(no\_of\_rows\_for\_mat1, no\_of\_columns\_for\_mat1)

print(input\_array1)

no\_of\_rows\_for\_mat2 = int(input("Enter the number of rows for matrix 2 "))

no\_of\_columns\_for\_mat2 = int(input("Enter the number of columns for matrix 2 "))

arr2 = list(map(int, input().split()))

input\_array2= np.array(arr).reshape(no\_of\_rows\_for\_mat2, no\_of\_columns\_for\_mat2)

print(input\_array2)

result = [[input\_array1[i][j] + input\_array2[i][j] for j in range(len(input\_array1[0]))]for i in range(len(input\_array1))]

result

**Solution : 2**

import numpy as np

no\_of\_rows\_for\_mat1 = int(input("Enter the number of rows for matrix 1 "))

no\_of\_columns\_for\_mat1 = int(input("Enter the number of columns for matrix 1 "))

arr1 = list(map(int, input().split()))

input\_array1= np.array(arr).reshape(no\_of\_rows\_for\_mat1, no\_of\_columns\_for\_mat1)

print(input\_array1)

no\_of\_rows\_for\_mat2 = int(input("Enter the number of rows for matrix 2 "))

no\_of\_columns\_for\_mat2 = int(input("Enter the number of columns for matrix 2 "))

arr2 = list(map(int, input().split()))

input\_array2= np.array(arr).reshape(no\_of\_rows\_for\_mat2, no\_of\_columns\_for\_mat2)

print(input\_array2)

np.dot(input\_array1, input\_array2)

**Solution : 3**

import numpy as np

no\_of\_rows\_for\_mat1 = int(input("Enter the number of rows for matrix 1 "))

no\_of\_columns\_for\_mat1 = int(input("Enter the number of columns for matrix 1 "))

arr1 = list(map(int, input().split()))

input\_array1= np.array(arr).reshape(no\_of\_rows\_for\_mat1, no\_of\_columns\_for\_mat1)

print(input\_array1)

np.transpose(input\_array1)

**Solution: 4**

word = input("Enter a single word")

sorted(word)

**Solution: 5**

a = input("Enter a word ")

punctuation = ",.;?!:/"

for i in a:

if i in punctuation:

a = a.replace(i, "")

print(a)