1. Write a Python Program to Add Two Matrices?

Ans:

R=int(input("enter the no of rows :"))  
C = int(input("enter the no of columns:"))  
matrix1 = []  
matrix2 = []  
matrix3= []  
print("Enter the entries rowwise for matrix1:")  
for i in range(R):  
 a = []  
 for j in range(C):  
 a.append(int(input()))  
 matrix1.append(a)  
for i in range(R):  
 for j in range(C):  
 print(matrix1[i][j], end = " ")  
 print()  
print("Enter the entries rowwise for matrix2:")  
for i in range(R):  
 b = []  
 for j in range(C):  
 b.append(int(input()))  
 matrix2.append(b)  
for i in range(R):  
 for j in range(C):  
 print(matrix2[i][j], end = " ")  
 print()  
for i in range(R):  
 c = []  
 for j in range(C):  
 c.append(0)  
 matrix3.append(c)  
for i in range(R):  
 for j in range(C):  
 matrix3[i][j]=matrix1[i][j]+matrix2[i][j]  
for i in range(R):  
 for j in range(C):  
 print(matrix3[i][j], end = " ")  
 print()

1. Write a Python Program to Multiply Two Matrices?

Ans:

R1 = int(input("enter the no of rows for matrix1:"))  
C1 = int(input("enter the no of columns for matrix1:"))  
R2 = int(input("enter the no of rows for matrix2:"))  
C2 = int(input("enter the no of columns for matrix2:"))  
  
  
def multiply(R1, C1, R2, C2):  
 matrix1 = []  
 matrix2 = []  
 matrix3 = []  
 print("Enter the entries rowwise for matrix1:")  
 for i in range(R1):  
 a = []  
 for j in range(C1):  
 a.append(int(input()))  
 matrix1.append(a)  
 for i in range(R1):  
 for j in range(C1):  
 print(matrix1[i][j], end=" ")  
 print()  
 print("Enter the entries rowwise for matrix2:")  
 for i in range(R2):  
 b = []  
 for j in range(C2):  
 b.append(int(input()))  
 matrix2.append(b)  
 for i in range(R2):  
 for j in range(C2):  
 print(matrix2[i][j], end=" ")  
 print()  
 for i in range(R1):  
 c = []  
 for j in range(C2):  
 c.append(0)  
 matrix3.append(c)  
 for i in range(R1):  
 for j in range(C2):  
 for k in range(R2):  
 matrix3[i][j] += matrix1[i][k] \* matrix2[k][j]  
  
 for i in range(R1):  
 for j in range(C2):  
 print(matrix3[i][j], end=" ")  
 print()  
  
  
if (C1 == R2):  
 multiply(R1, C1, R2, C2)  
else:  
 print("C1!=R2 \n")  
 print("tne no of rows of matrix1 must be equal to no of columns of matrix2\n")  
 print("try different inputs")

1. Write a Python Program to Transpose a Matrix?

Ans:

R = int(input("enter the no of rows for matrix:"))  
C = int(input("enter the no of columns for matrix:"))  
  
def transpose(R,C):  
 matrix = []  
 matrixtrans=[]  
 print("Enter the entries rowwise for matrix:")  
 for i in range(R):  
 a = []  
 for j in range(C):  
 a.append(int(input()))  
 matrix.append(a)  
 for i in range(R):  
 for j in range(C):  
 print(matrix[i][j], end=" ")  
 print()  
  
 for i in range(C):  
 c = []  
 for j in range(R):  
 c.append(0)  
 matrixtrans.append(c)  
 for i in range(C):  
 for j in range(R):  
 matrixtrans[i][j]=matrix[j][i]  
 print ("the transposed matrix is below :")  
 for i in range(C):  
 for j in range(R):  
 print(matrixtrans[i][j], end=" ")  
 print()  
  
transpose(R,C)

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

Ans:

#user defined string  
str=input("enter a string \n")  
strlis=(list(str))#storing string to list  
def sort\_alphabet(strlis):  
 for i in range(len(strlis)):  
 for j in range(i+1,len(strlis)):  
 if strlis[i]>strlis[j]:  
 temp\_char=strlis[i]  
 strlis[i]=strlis[j]  
 strlis[j]=temp\_char  
 return(strlis)  
sort\_alphabet(strlis)  
 #converting list to string  
str\_sort=''  
for i in strlis:  
 str\_sort+=i  
print("the sorted string : \n",str\_sort)

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

##removal of punctuation in a string  
#storing all punctuations  
import string  
results=string.punctuation  
  
#user defined function  
str=input("enter a string")  
#removing punctuation  
str\_new=""  
for i in str:  
 if i not in results:  
 str\_new+=i  
print("the new string : ",str\_new)