def add(m1,m2):

result=[[0,0,0],

[0,0,0],

[0,0,0]]

for i in range(len(m1)):

for j in range(len(m1[0])):

result [i][j]=m1[i][j]+m2[i][j]

for r in result:

print(r)

def mul(m1,m2):

result=[[0,0,0],

[0,0,0],

[0,0,0]]

for i in range(len(m1)):

for j in range(len(m2[0])):

for k in range(len(m2)):

result[i][j] +=m1[i][k]\*m2[k][j]

for r in result:

print(r)

def sub(m1,m2):

result=[[0,0,0],

[0,0,0],

[0,0,0]]

for i in range(len(m1)):

for j in range(len(m2[0])):

result[i][j]=m1[i][j]-m2[i][j]

for r in result:

print(r)

def tran(m1):

result=[[0,0,0],

[0,0,0],

[0,0,0]]

for i in range(len(m1)):

for j in range(len(m1[0])):

result[j][i]=m1[i][j]

for r in result:

print(r)

def tran2(m2):

result=[[0,0,0],

[0,0,0],

[0,0,0]]

for i in range(len(m2)):

for j in range(len(m2[0])):

result[j][i]=m2[i][j]

for r in result:

print(r)

m1=[]

print("enter the 1st matrices:")

r1=int(input("enter the number of rows:"))

c1=int(input("enter the number of columns:"))

print("emter the entries rowwise:")

for i in range(r1):

a1=[]

for j in range(c1):

a1.append(int(input()))

m1.append(a1)

for i in range(r1):

for j in range(c1):

print(m1[i][j],end=" ")

print()

m2=[]

print("enter the 2nd matrices:")

r2=int(input("enter the number of rows:"))

c2=int(input("enter the number of columns:"))

print("enter the entries rowwise:")

for i in range(r2):

a2=[]

for j in range(c2):

a2.append(int(input()))

m2.append(a2)

for i in range(r2):

for j in range(c2):

print(m2[i][j],end=" ")

print("the 1st matrix is:",m1)

print("the 2nd matrix is:",m2)

flag=1

while flag==1:

print("\n\n------------MENU---------------\n")

print("1.Addition of two matrices")

print("2.subtraction of two matrices")

print("3.multiplication of two matrices")

print("4.transpose of matrix 1")

print("5,Transpose of matrix 2")

print("6.EXIT")

ch=int(input("enter your choice:"))

if ch==1:

print("Additon of two matrices is:")

add(m1,m2)

a=input("do you want to continue(yes/no)")

if a=="yes":

flag=1

else:

flag=0

print("Thanks for using this program")

elif ch==2:

print("the subtraction of two matrices is:")

sub(m1,m2)

a=input("do you want to continue(yes/no)")

if a=="yes":

flag=1

else:

flag=0

print("Thanks for using this program")

elif ch==3:

print("the multiplication of two matrices is:")

mul(m1,m2)

a=input("do you want to continue(yes/no)")

if a=="yes":

flag=1

else:

flag=0

print("Thanks for using this program")

elif ch==4:

print("the transpose of matrix 1 is:")

tran(m1)

a=input("do you want to continue(yes/no)")

if a=="yes":

flag=1

else:

flag=0

print("Thanks for using this program")

elif ch==5:

print("the transpose of matrix 2 is:")

tran2(m2)

a=input("do you want to continue(yes/no)")

if a=="yes":

flag=1

else:

flag=0

print("Thanks for using this program")

elif ch==6:

print("EXIT:")

print("thanks for using this program")

else:

print("wrong entry,please enter a correct choice:")

a=input("do you want to continue(yes/no)")

if a=="yes":

flag=1

else:

flag=0

print("Thanks for using this program")