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Online C++ Compiler.

Code, Compile, Run and Debug C++ program online.

Write your code in this editor and press "Run" button to compile and execute it.

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#include <iostream>

using namespace std;

int m[3];

int arr[100][100],arr1[100][100];

int input2()

{

cout<<endl<<"Enter no of rows/columns for matrix 1:";

cin>>m[1];

cout<<endl<<"Enter elements of matrix 1:";

for(int i=0;i<m[1];i++)

{

for(int j=0;j<m[1];j++)

{

cout<<"Enter element ["<<i+1<<"]["<<j+1<<"]:";

cin>>arr[i][j];

}

}

cout<<endl<<"Matrix inputed..........................";

cout<<endl<<"Enter no of rows/columns for matrix 2:";

cin>>m[0];

cout<<endl<<"Enter elements of matrix 2:";

for(int i=0;i<m[2];i++)

{

for(int j=0;j<m[2];j++)

{

cout<<"Enter element ["<<i+1<<"]["<<j+1<<"]:";

cin>>arr1[i][j];

}

}

cout<<endl<<"Matrix inputed..........................";

return 0;

}

int input1()

{

cout<<endl<<"Enter no of rows/columns:";

cin>>m[0];

cout<<endl<<"Enter elements of matrix:";

for(int i=0;i<m[0];i++)

{

for(int j=0;j<m[0];j++)

{

cout<<"Enter element ["<<i+1<<"]["<<j+1<<"]:";

cin>>arr[i][j];

}

}

cout<<endl<<"Array inputed..........................";

return 0;

}

void transpose()

{

input1();

int t;

for(int i=0;i<m[0];i++)

{

for(int j=0;j<m[0];j++)

{

if(i<j)

{

t=arr[i][j];

arr[i][j]=arr[j][i];

arr[j][i]=t;

}

}

}

cout<<endl<<"Matrix transposed...........................";

display(1);

}

void add()

{

int flag=0;

input2();

if(m[1]==m[2])

{

cout<<endl<<"Matrices can be added.";

for(int i=0;i<m[1];i++)

{

for(int j=0;j<m[1];j++)

{

arr[i][j]=arr[i][j]+arr1[i][j];

}

}

flag=1;

}

else

{

cout<<endl<<"Matrices can't be added.";

}

display(flag)

}

void multiply()

{

int flag=0,s=0;

input2();

if(m[1]==m[2])

{

cout<<endl<<"Matrices can be multiplied.";

for(i = 0; i < m[1]; ++i)

for(j = 0; j < m[2]; ++j)

for(k = 0; k < m[1]; ++k)

{

arr[i][j] += arr[i][k] \*arr1[k][j];

}

flag=1;

}

else

{

cout<<endl<<"Matrices can't be multiplied.";

}

display(flag)

}

void display(int flag)

{

if(flag==1)

{

cout<<endl<<"Final Array is........................";

for(int i=0;i<m[0];i++)

{

for(int j=0;j<m[0];j++)

{

cout<<"Element ["<<i+1<<"]["<<j+1<<"]:";

cout<<arr[i][j];

}

}

cout<<endl<<"Matrix Displayed..........................";

}

else

{

cout<<endl<<"Operation Not performed..................";

}

}

int main()

{

cout<<"Implementing matrix addition,multiplication and transpose.......................";

cout<<endl<<"Press 1 to add two matrices.";

cout<<endl<<"Press 2 to multiply two matrices.";

cout<<endl<<"Press 3 to transpose a matrix.";

cout<<endl<<"Press anything else to exit.";

cout<<endl<<"Enter your choice:";

int ch;

cin>>ch;

switch(ch)

{

case 1: add();

break;

case 2: multiply();

break;

case 3: transpose();

break;

default: exit(0);

}

cout<<endl<<"Matrix Operation Complete................................";

return 0;

}