

Central University of Haryana

Matrix I/O

Write a program to read a matrix of size $m \times n$ from the keyboard and display the same using function.

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[Github Link](#)

CODE

```
1 // Write a program to read a matrix of size m * n from the keyboard and display the same using functions
2
3 #include <iostream>
4 using namespace std;
5
6
7 void inputMatrix(int **array, int m)
8 {
9     cout<<"Enter the elements of the matrix:\n";
10
11     for(int i=0; i<m; i++)
12     {
13         for(int j=0; j<m; j++)
14         {
15             cin>>array[i][j];
16         }
17     }
18 }
19
20 void displayMatrix(int **array, int m)
21 {
22     cout<<"The matrix is:\n";
23
24     for(int i=0; i<m; i++)
25     {
26         for(int j=0; j<m; j++)
27         {
28             cout<<array[i][j]<<" ";
29         }
30         cout<<"\n";
31     }
32 }
33
34 int main()
35 {
36     int size;
37
38     cout<<"Enter the size of the matrix: ";
39     cin>>size;
40
41
42 // Declare a 2D Array dynamically
43 int **matrix = new int*[size];
44 for(int i=0; i<size; i++)
45 {
46     matrix[i] = new int[size];
47 }
48
49 inputMatrix(matrix, size);
50 displayMatrix(matrix, size);
```

OUTPUT

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL
PS D:\CUH\4th Sem\OOP with C++\Lab\1. Matrix IO> cd "d:\CUH\4th Sem\OOP with C++\Lab\1. Matrix IO\" ; if ($?) { g++ Matrix.cpp -o Matrix } ; if ($?) { .\Matrix }
Enter the size of the matrix: 3
Enter the elements of the matrix:
1 2 3 4 5 6 7 8 9
The matrix is:
1 2 3
4 5 6
7 8 9
PS D:\CUH\4th Sem\OOP with C++\Lab\1. Matrix IO> |
```