

Question1.cpp

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1 //<----Lab 01 - Arrays and Dynamic Memory Allocation---->
2
3 //Q1. Write a C++ code to copy data of a 2D array in a 1D array using Column Major Order.
4
5 #include<bits/stdc++.h>
6 using namespace std;
7 int main(){
8     int m,n;
9     cout<<"Enter Rows of 2d Array: ";
10    cin >> m;
11    cout<<"Enter Columns of 2d Array: ";
12    cin >> n;
13    int arr1d[m*n],arr2d[m][n];
14    for(int i=0;i<m;i++){
15        for(int j=0;j<n;j++){
16            cout<<"Enter ARRAY2D ["<<i+1<<"]["<<j+1<<"] : "<<endl;
17            cin>>arr2d[i][j];
18        }
19    }
20    cout<<"Copying to 1darray in column major order"<<endl;
21    int count=0;
22    for(int i=0;i<n;i++){
23        for(int j=0;j<m;j++){
24            arr1d[count++]=arr2d[j][i];
25        }
26    }
27
28    cout<<"printing 1d array"<<endl;
29    for(int i=0;i<m*n;i++){
30        cout<<arr1d[i]<<endl;
31    }
32 }
```