

```

1  #include <iostream>
2  #include <iomanip>
3
4  using namespace std;
5
6  int main()
7  {
8      const int rows = 100 ; const int cols = 100 ;
9      int arr[rows][cols] ;
10     srand(time(0)) ; // TO CHANGE RONDOM NUMBERS GENERATED EACH RUN ( TIME IS ALWAYS CHANGEABLE )
11     for (int i = 0 ; i<rows ; i++)
12     {
13         for (int j = 0 ; j<cols ; j++)
14         {
15             arr[i][j] = (rand()%1000)+1 ; // Generate random numbers from 1 to 1000
16         }
17     }
18     int counter = 0 ;
19
20     for (int i = 1 ; i<rows -1 ; i++) // To ignore first and last ( row and column )
21     {
22         for (int j = 1 ; j<cols-1 ; j++)
23         {
24             if ( arr[i][j] < arr[i-1][j-1] &&
25                 arr[i][j] < arr[i][j-1] &&
26                 arr[i][j] < arr[i+1][j-1] &&
27
28                 arr[i][j] < arr[i-1][j] &&
29                 arr[i][j] < arr[i+1][j] &&
30
31                 arr[i][j] < arr[i-1][j+1] &&
32                 arr[i][j] < arr[i][j+1] &&
33                 arr[i][j] < arr[i+1][j+1] )
34
35                 counter ++ ;
36
37         }
38     }
39
40     for (int i = 0 ; i<rows ; i++)
41     {
42         for (int j = 0 ; j<cols ; j++)
43         {
44             cout << arr[i][j] << " " ;
45         }
46     }
47
48     cout << endl ;
49     cout << "No of values satisfy conditions " << counter << endl ;
50
51
52
53
54
55
56     return 0;
57 }
58

```