

Lab Zero

Print a Spiral matrix for nXm size

eg for 5X5 following output will be displayed

1	2	3	4	5
16	17	18	19	6
15	24	25	20	7
14	23	22	21	8
13	12	11	10	9

```
#include <iostream>
using namespace std;
```

```
int main() {
    int rows = 5;
    int cols = 5;
    int value = 1;

    int arr[rows][cols];
    int top=0;
    int right=cols-1;
    int bottom=rows-1;
    int left=0;

    // Fill the 2D array with values from 1 to 25
    while(value<=rows*cols) {
        for (int j = left; j <= right; j++) {
            arr[top][j] = value++;
        }
        top++;
        for (int i = top; i <=bottom; i++) {
            arr[i][right] = value++;
        }
        right--;
        for (int l = right; l >= left; l--) {
            arr[bottom][l] = value++;
        }
        bottom--;
    }
}
```

```

    for (int k = bottom; k >= top; k--) {
        arr[k][left] = value++;
    }
    left++;

}

// Print the 2D array
for (int i = 0; i < rows; i++) {
    for (int j = 0; j < cols; j++) {
        cout << arr[i][j] << " ";
    }
    cout << endl;
}

return 0;
}

```

Output					
/tmp/wvZX7E493q.o					
1	2	3	4	5	
16	17	18	19	6	
15	24	25	20	7	
14	23	22	21	8	
13	12	11	10	9	