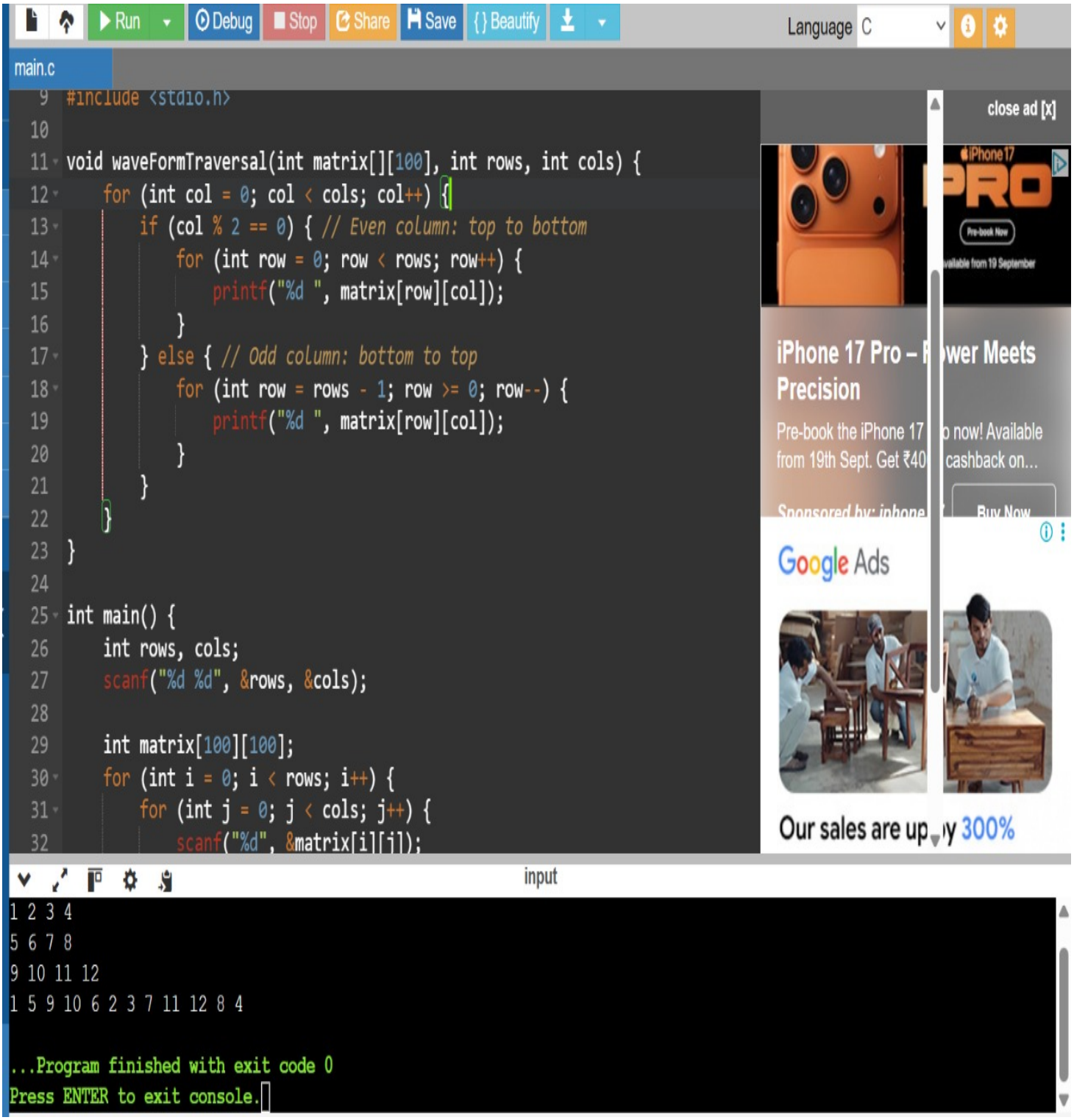
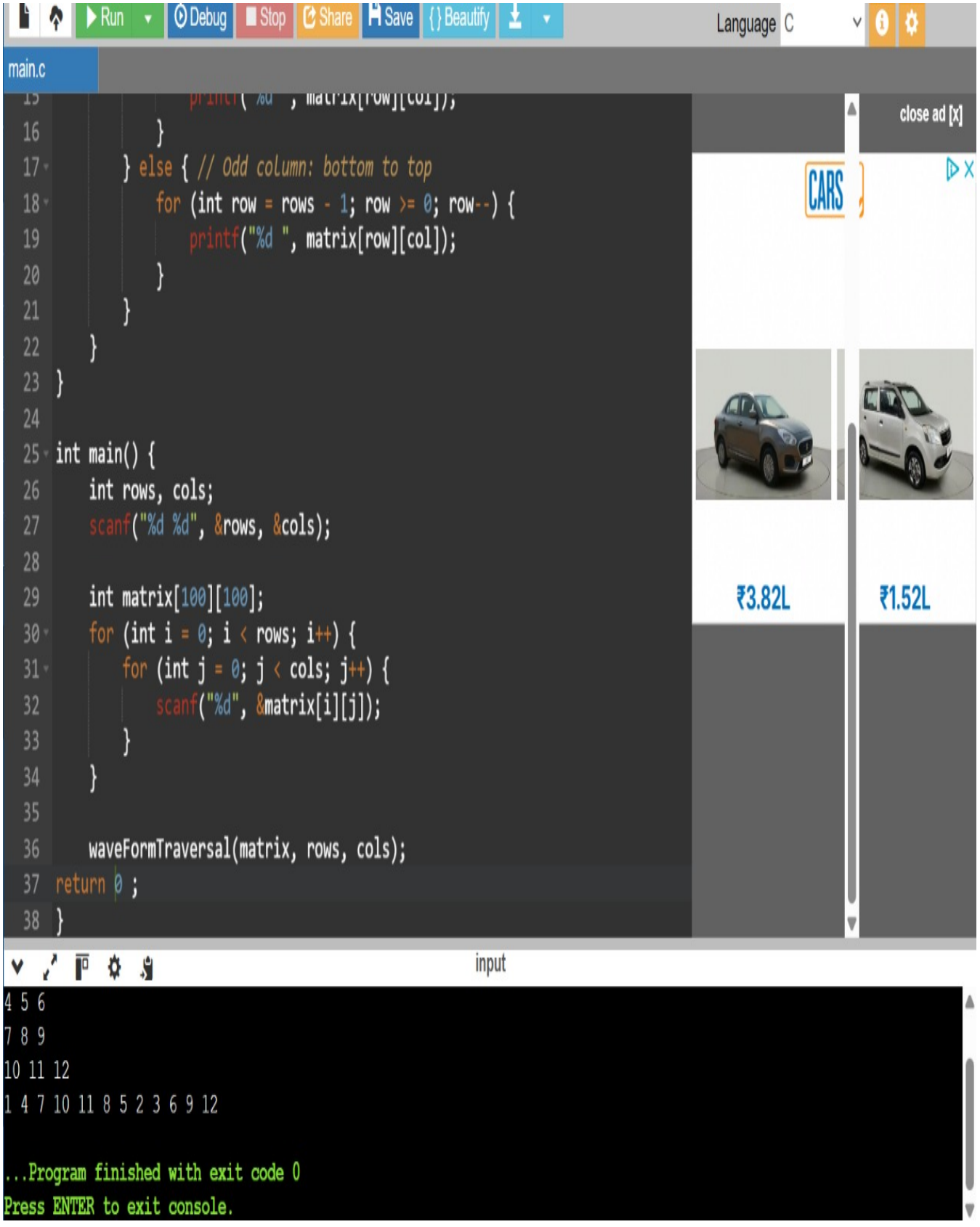
Problem statement -Wave form traversal

Example 1



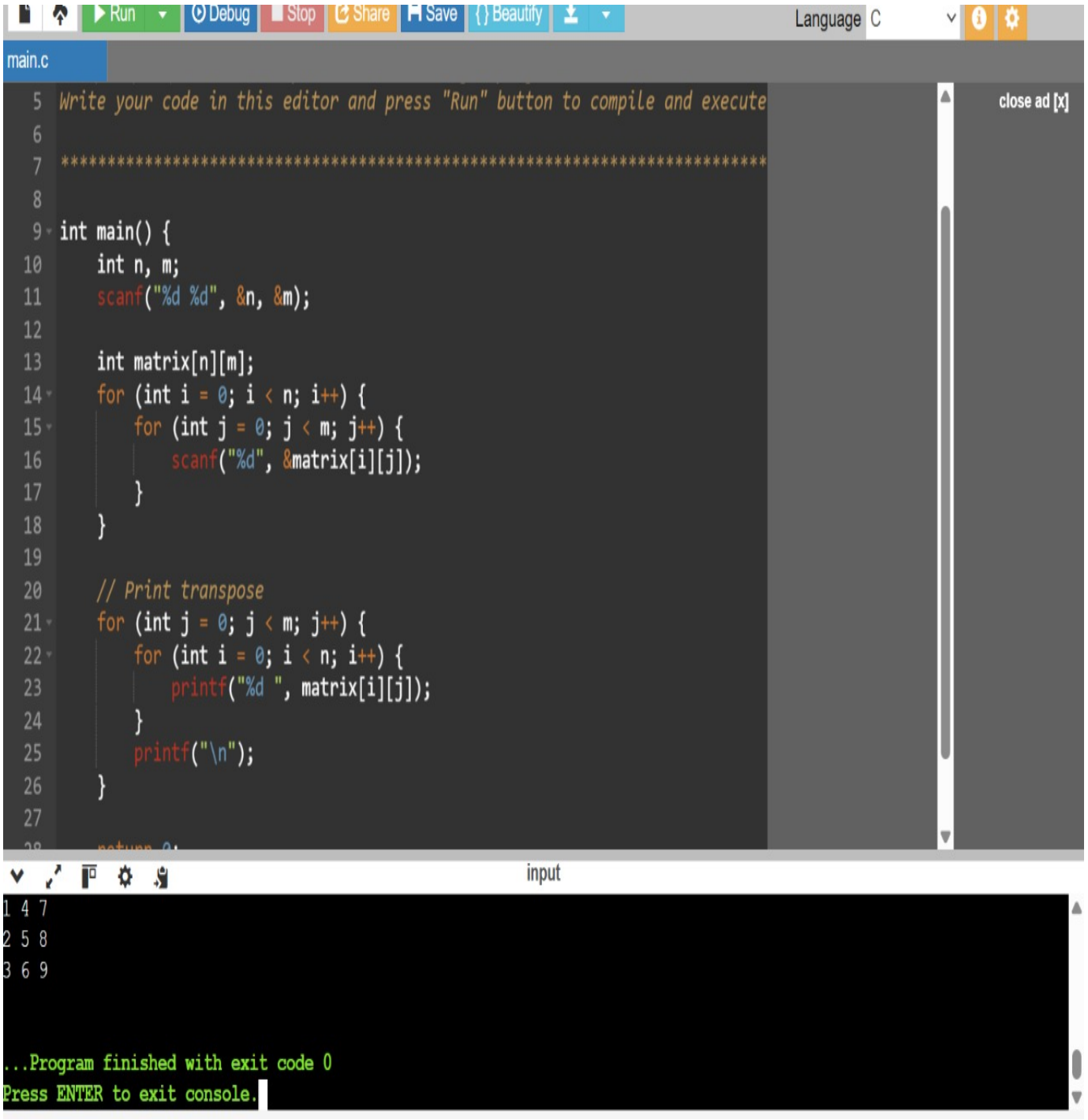
Example 2



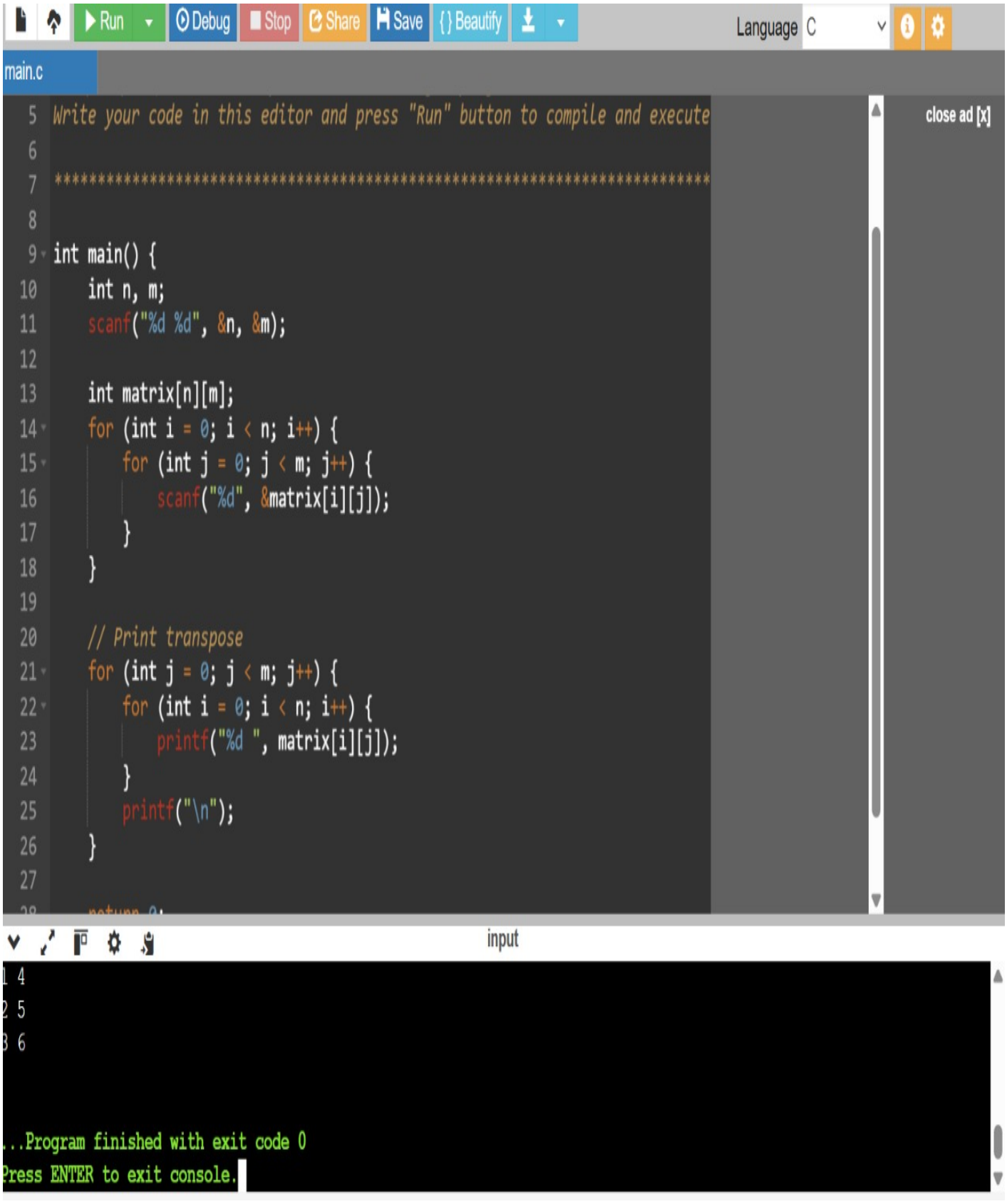

```c
            printf("%d ", matrix[row][col]);
        }
    } else { // Odd column: bottom to top
        for (int row = rows - 1; row >= 0; row--) {
            printf("%d ", matrix[row][col]);
        }
    }
}

int main() {
    int rows, cols;
    scanf("%d %d", &rows, &cols);

    int matrix[100][100];
    for (int i = 0; i < rows; i++) {
        for (int j = 0; j < cols; j++) {
            scanf("%d", &matrix[i][j]);
        }
    }

    waveFormTraversal(matrix, rows, cols);
return 0 ;
}
```

Problem statement -Transpose of a matrix

Example 1

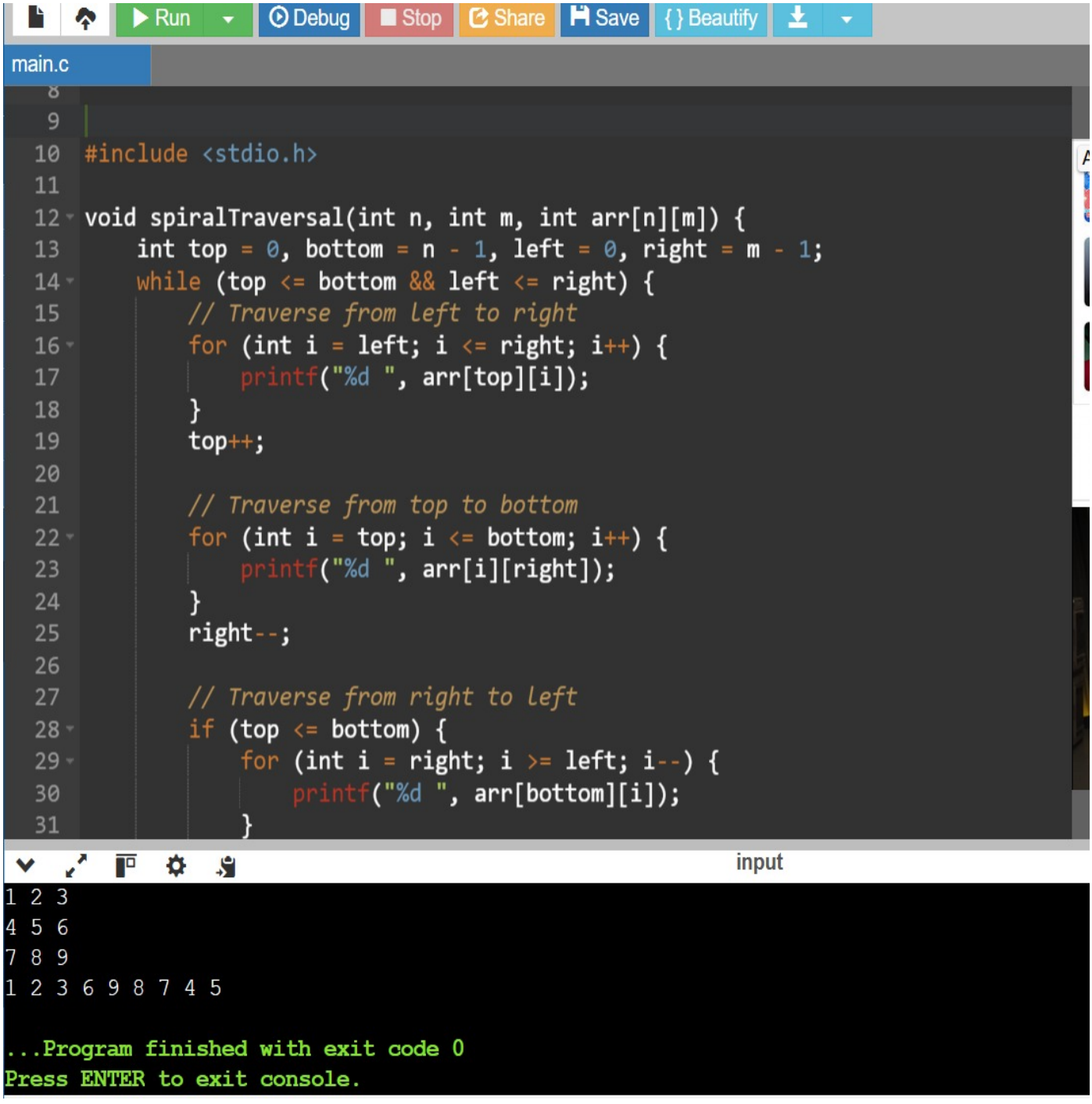


Example 2


Run
Debug
Stop
Share
Save
{} Beautify
Language C
main.c
close ad [x]
Write your code in this editor and press "Run" button to compile and execute
int main() {
int n, m;
scanf("%d %d", &n, &m);
int matrix[n][m];
for (int i = 0; i < n; i++) {
for (int j = 0; j < m; j++) {
scanf("%d", &matrix[i][j]);
}
}
// Print transpose
for (int j = 0; j < m; j++) {
for (int i = 0; i < n; i++) {
printf("%d ", matrix[i][j]);
}
printf("\n");
}
input
1 4
2 5
3 6
...Program finished with exit code 0
Press ENTER to exit console.

Problem statement -Spiral traversal of matrix

Example 1

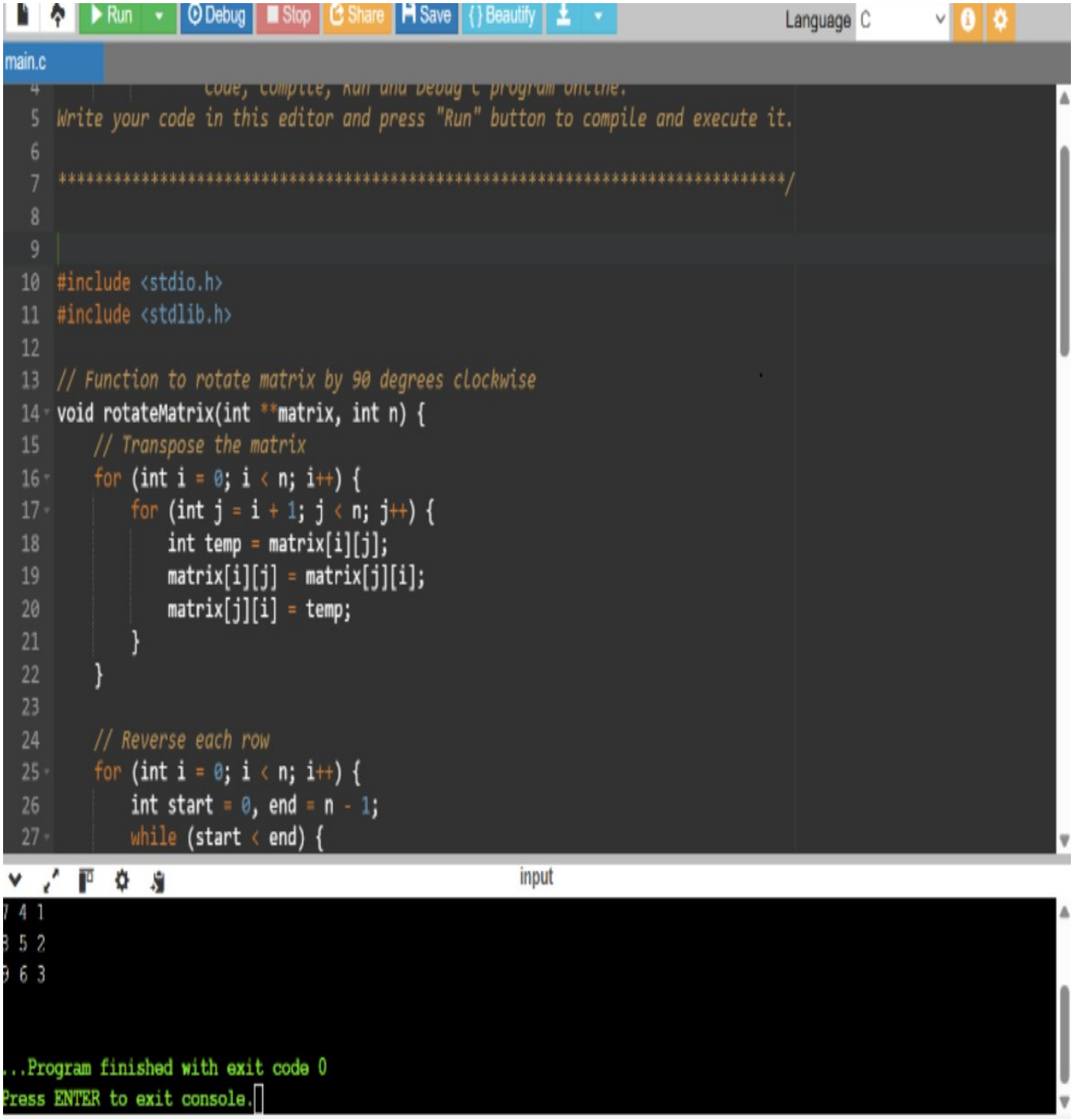


Example 2

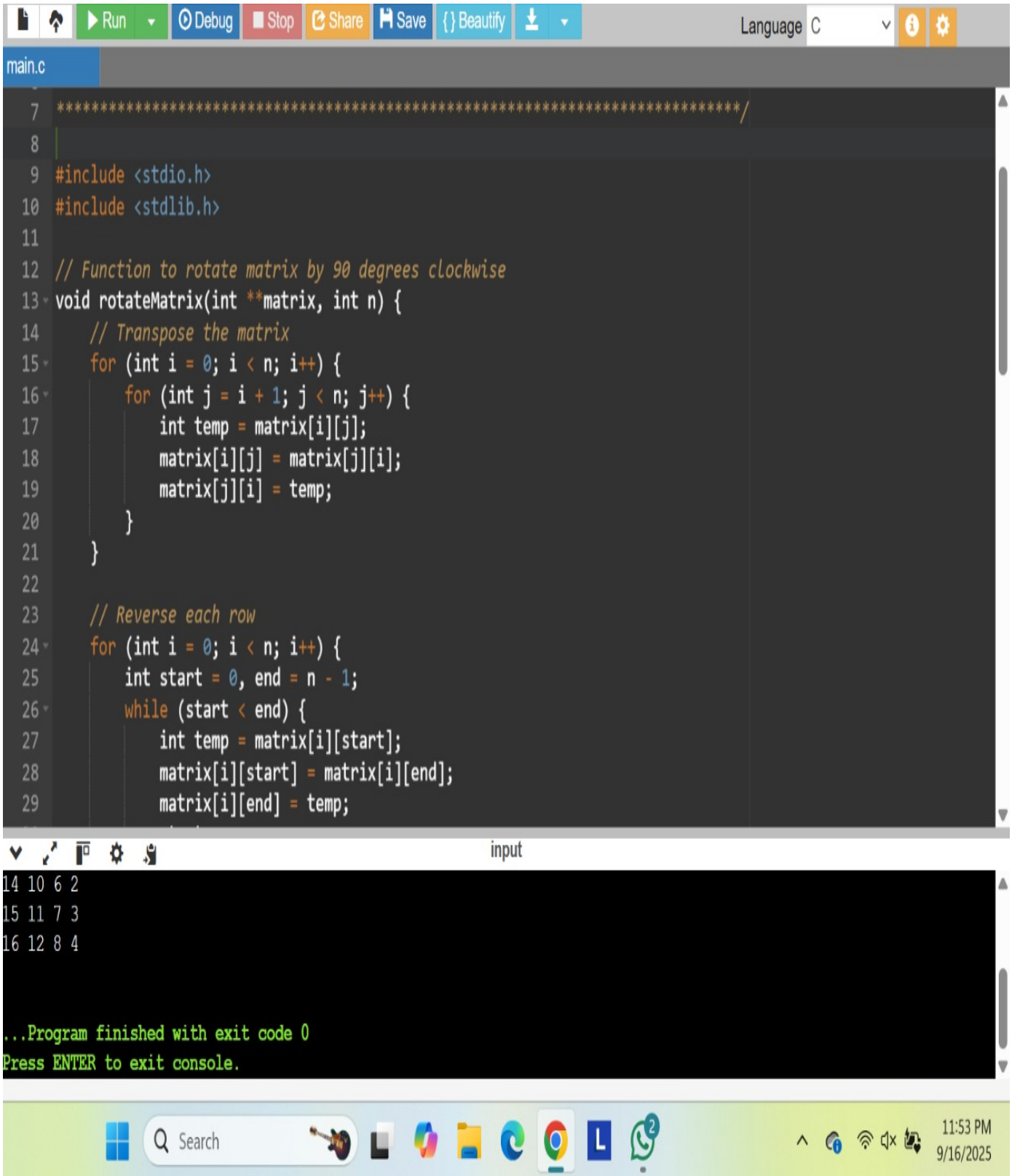

```c
#include <stdio.h>

void spiralTraversal(int n, int m, int arr[n][m]) {
    int top = 0, bottom = n - 1, left = 0, right = m - 1;
    while (top <= bottom && left <= right) {
        // Traverse from left to right
        for (int i = left; i <= right; i++) {
            printf("%d ", arr[top][i]);
        }
        top++;

        // Traverse from top to bottom
        for (int i = top; i <= bottom; i++) {
            printf("%d ", arr[i][right]);
        }
        right--;

        // Traverse from right to left
        if (top <= bottom) {
            for (int i = right; i >= left; i--) {
                printf("%d ", arr[bottom][i]);
            }
```

Problem statement -Rotate matrix by 90° clockwise

Example 1



Example 2


Run
Debug
Stop
Share
Save
{} Beautify
Language C
main.c
#include <stdio.h>
#include <stdlib.h>
// Function to rotate matrix by 90 degrees clockwise
void rotateMatrix(int **matrix, int n) {
// Transpose the matrix
for (int i = 0; i < n; i++) {
for (int j = i + 1; j < n; j++) {
int temp = matrix[i][j];
matrix[i][j] = matrix[j][i];
matrix[j][i] = temp;
}
}
// Reverse each row
for (int i = 0; i < n; i++) {
int start = 0, end = n - 1;
while (start < end) {
int temp = matrix[i][start];
matrix[i][start] = matrix[i][end];
matrix[i][end] = temp;
input
14 10 6 2
15 11 7 3
16 12 8 4
...Program finished with exit code 0
Press ENTER to exit console.
Search
11:53 PM
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