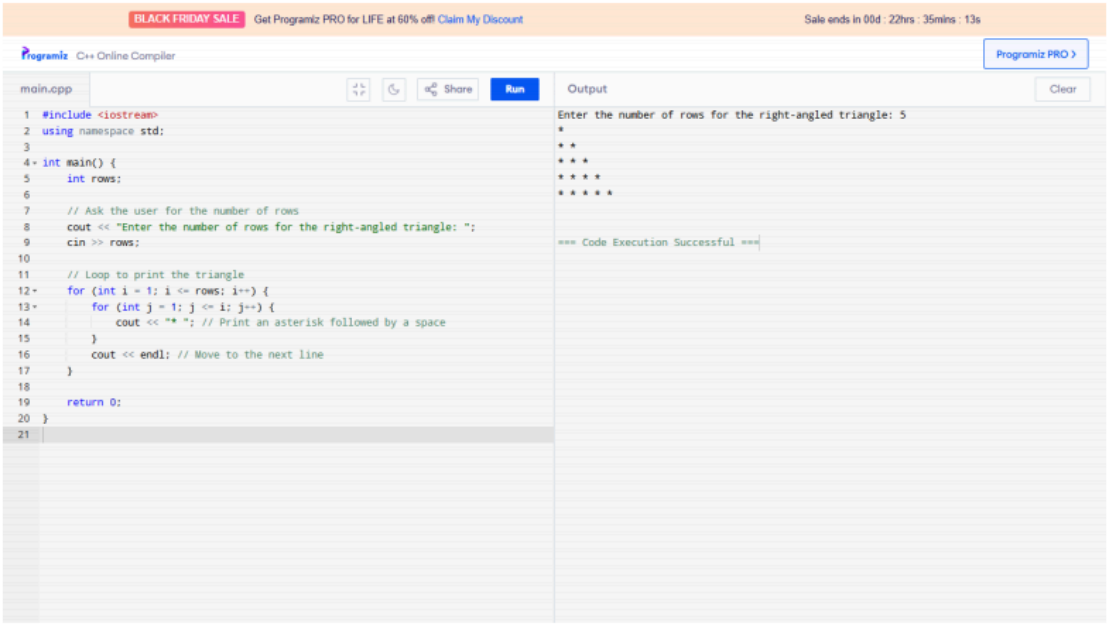
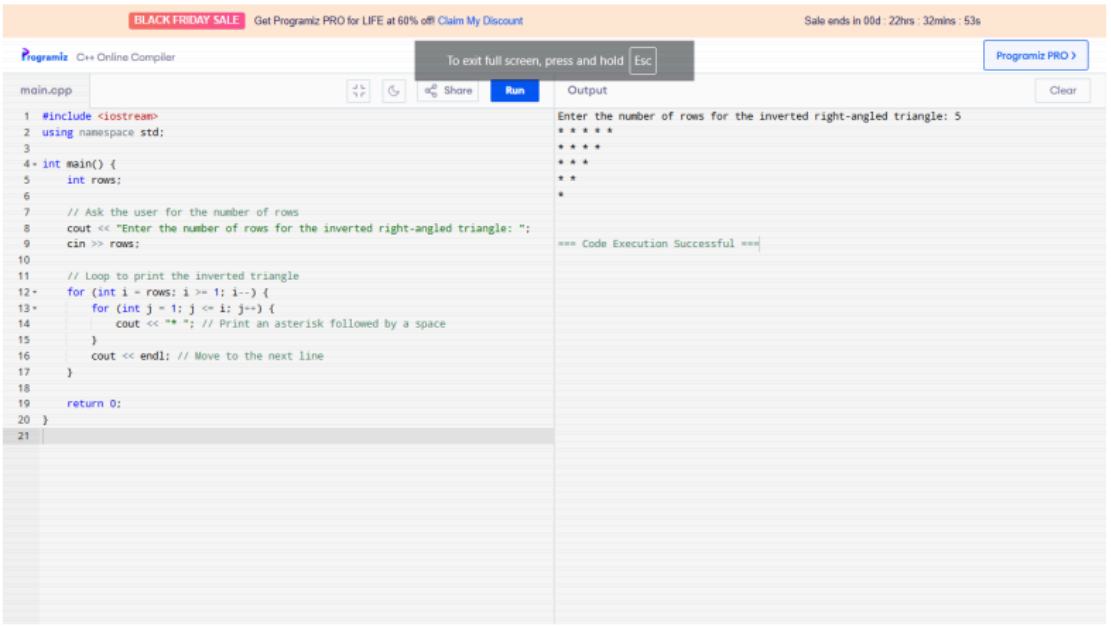
Loop Logic Mastery

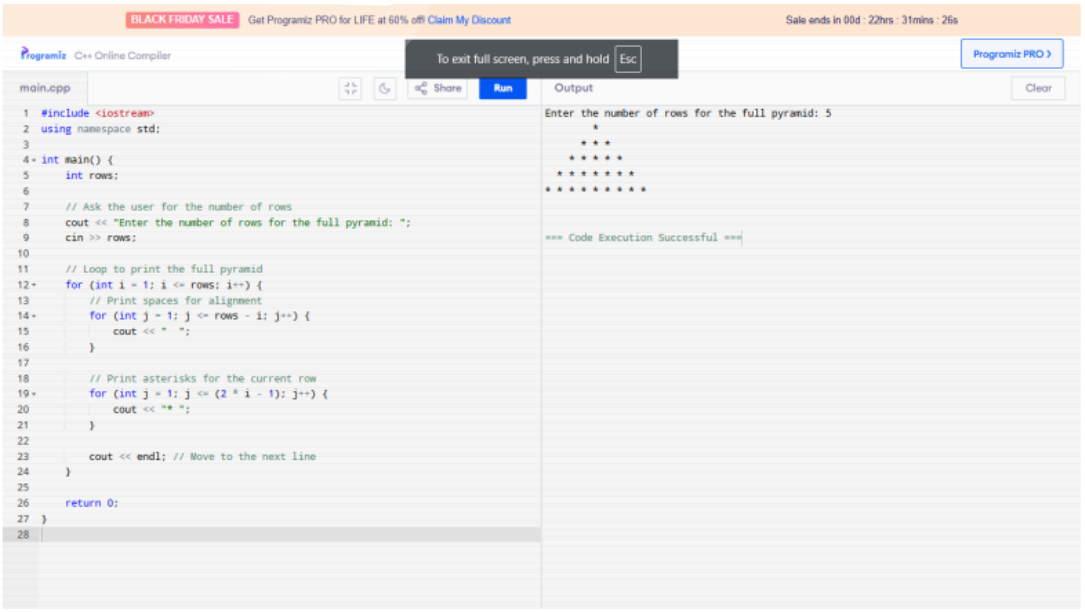
1. Right-Angled Triangle



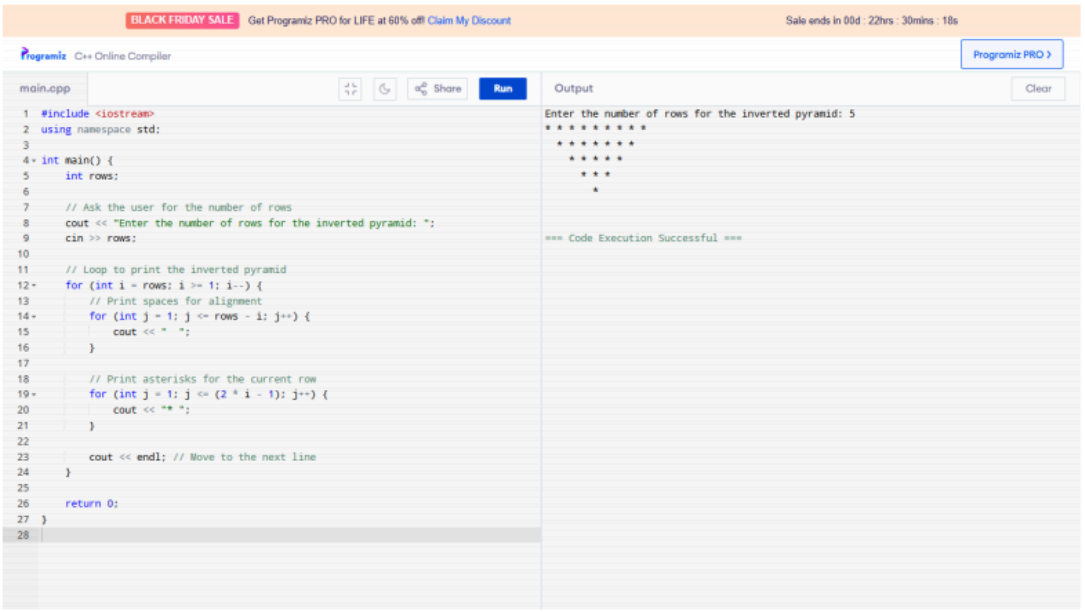
2. Inverted Right-Angled Triangle



3. Full Pyramid

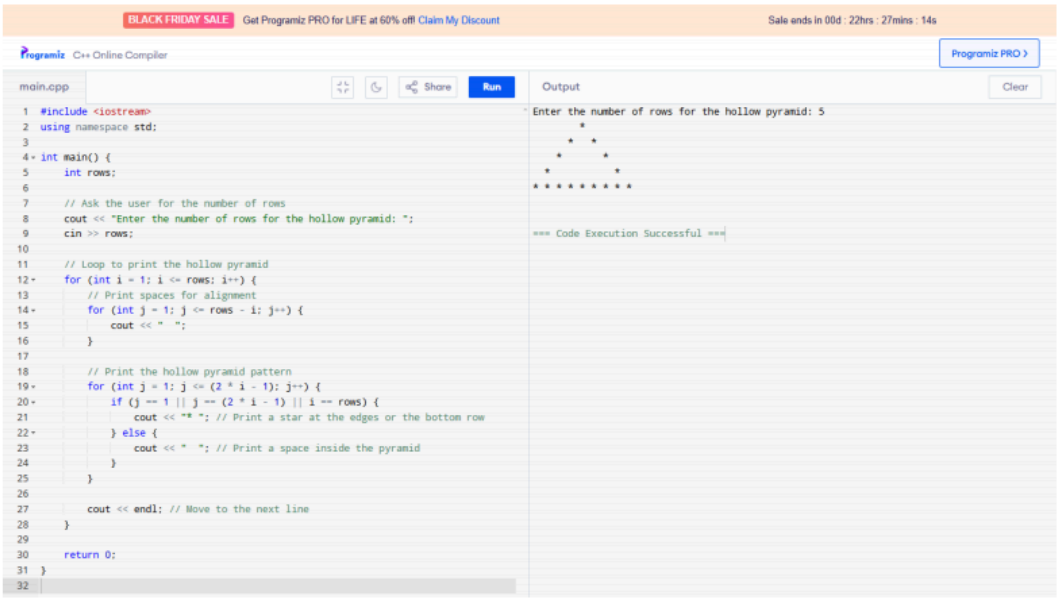


4. Inverted Pyramid

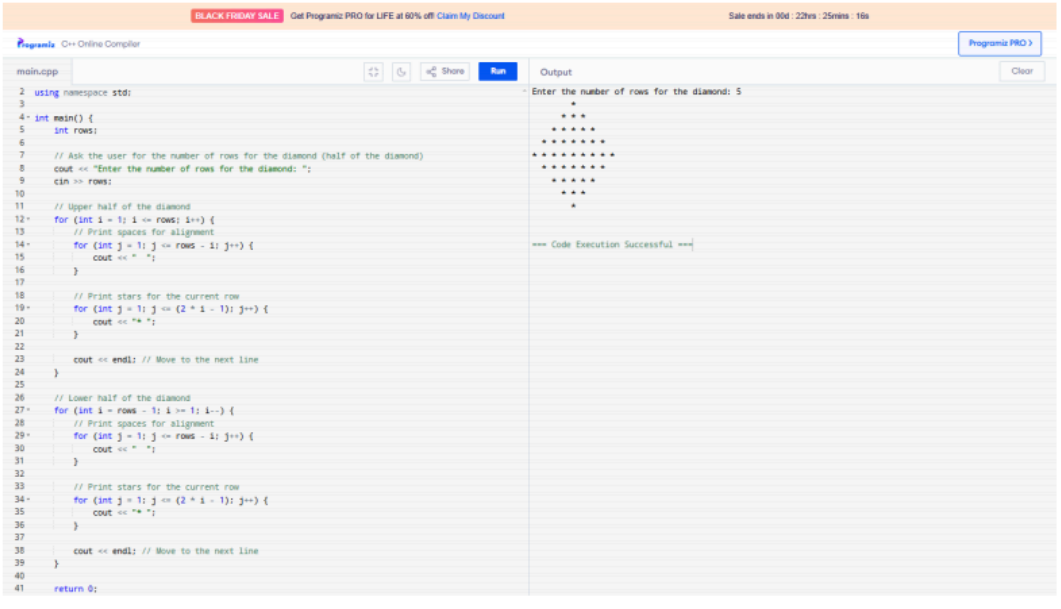


5. Hollow Pyramid

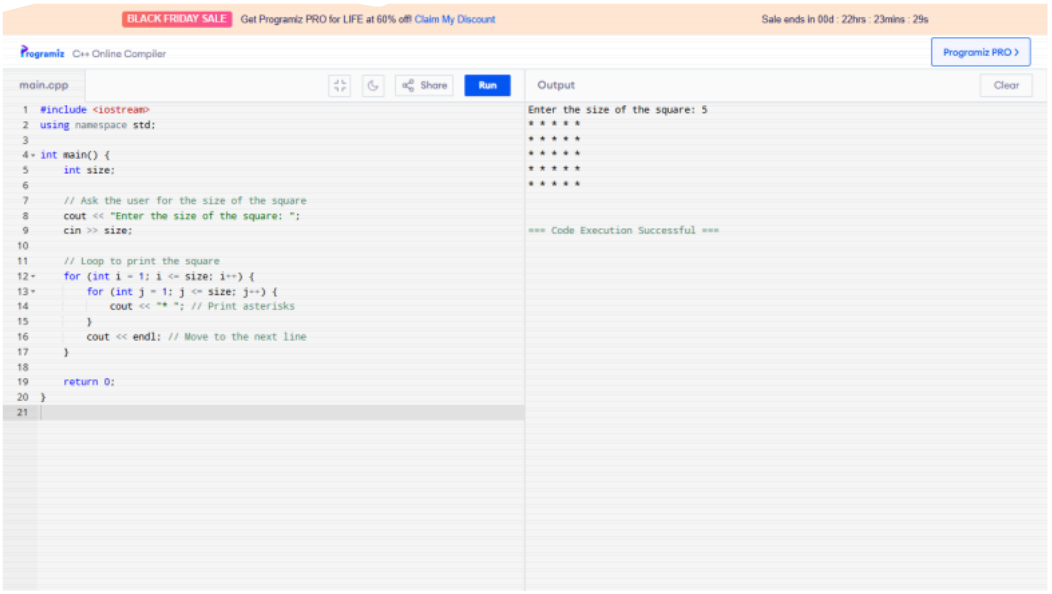
.



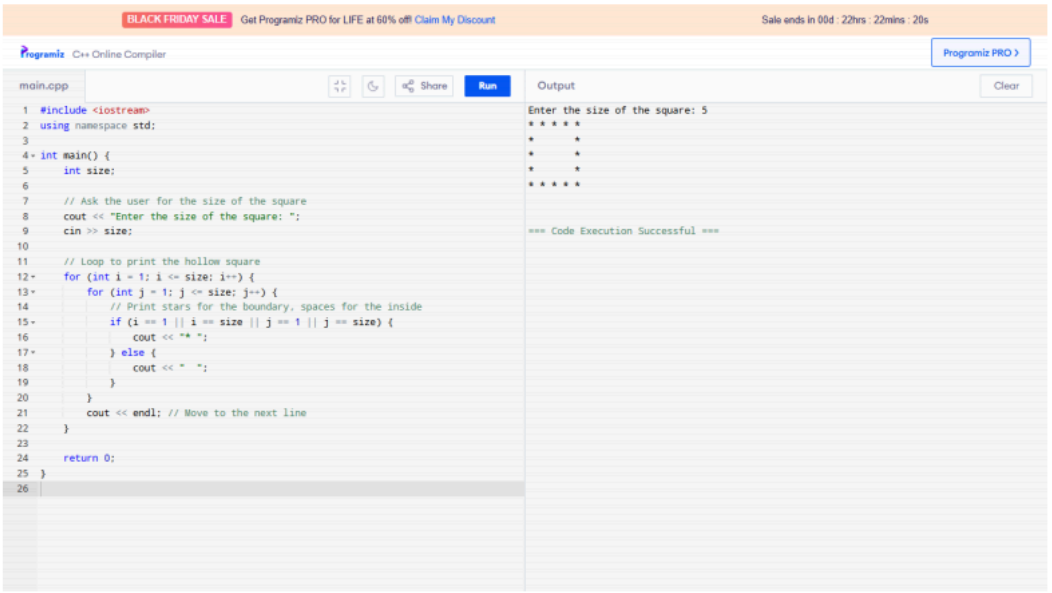
6. Diamond



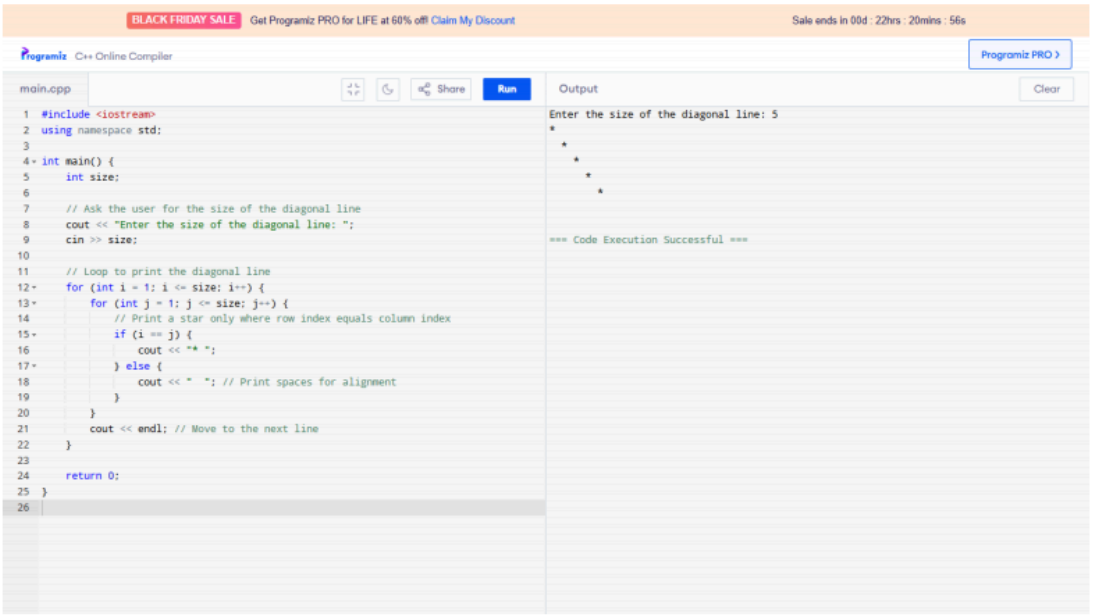
7. Square



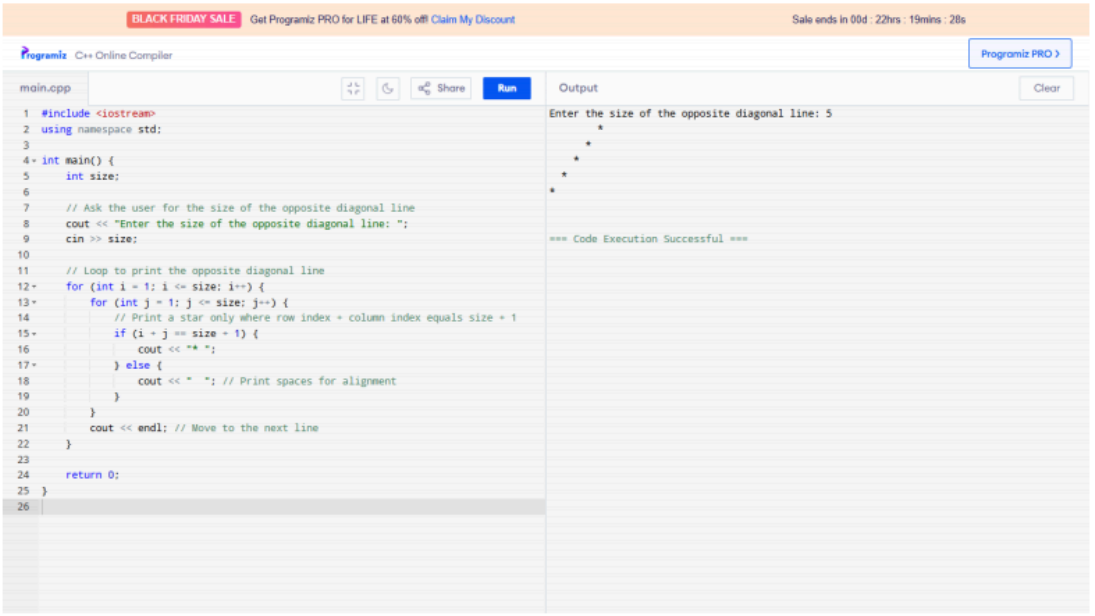
8. Hollow Square



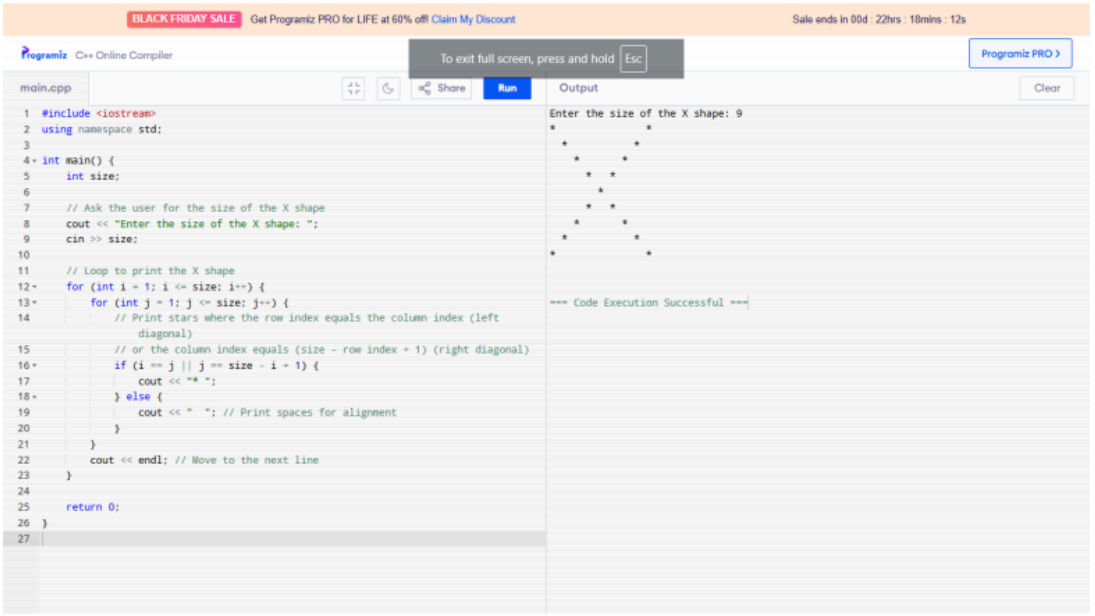
9. Diagonal Line



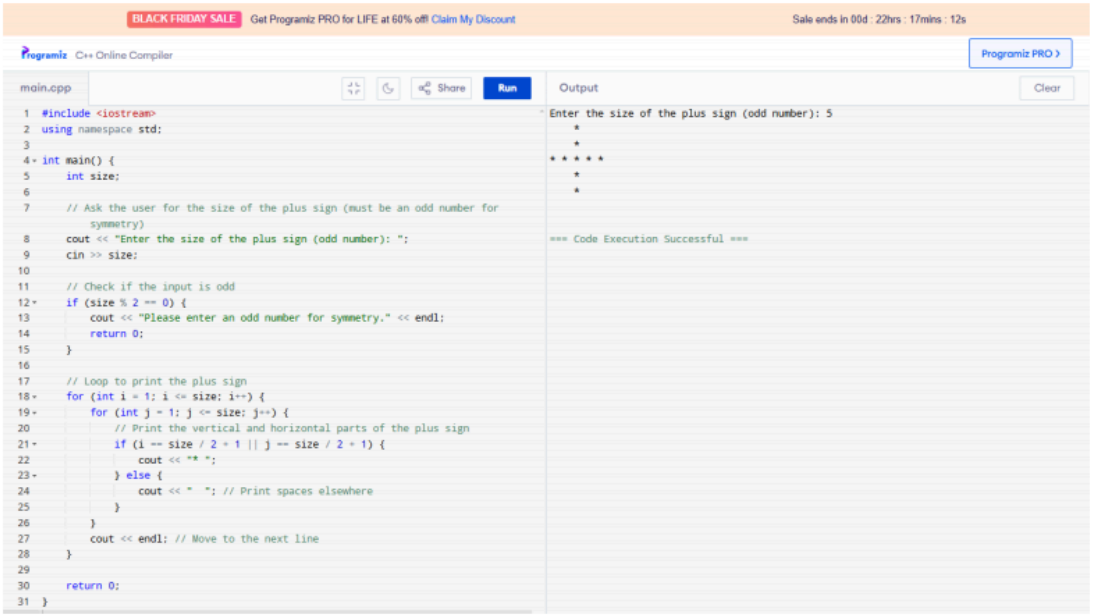
10. Opposite Diagonal



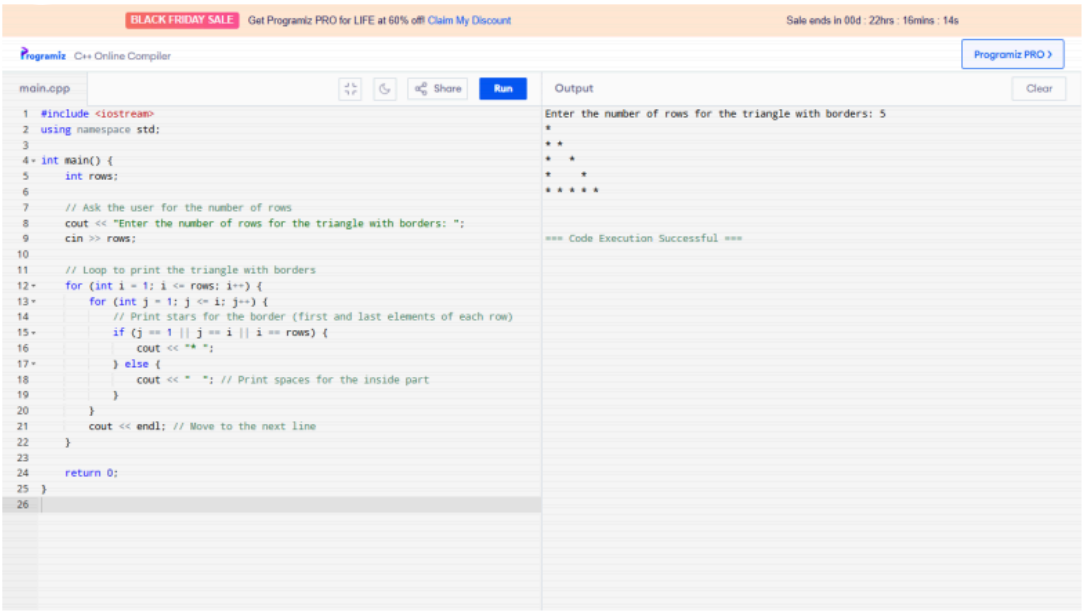
11. X Shape



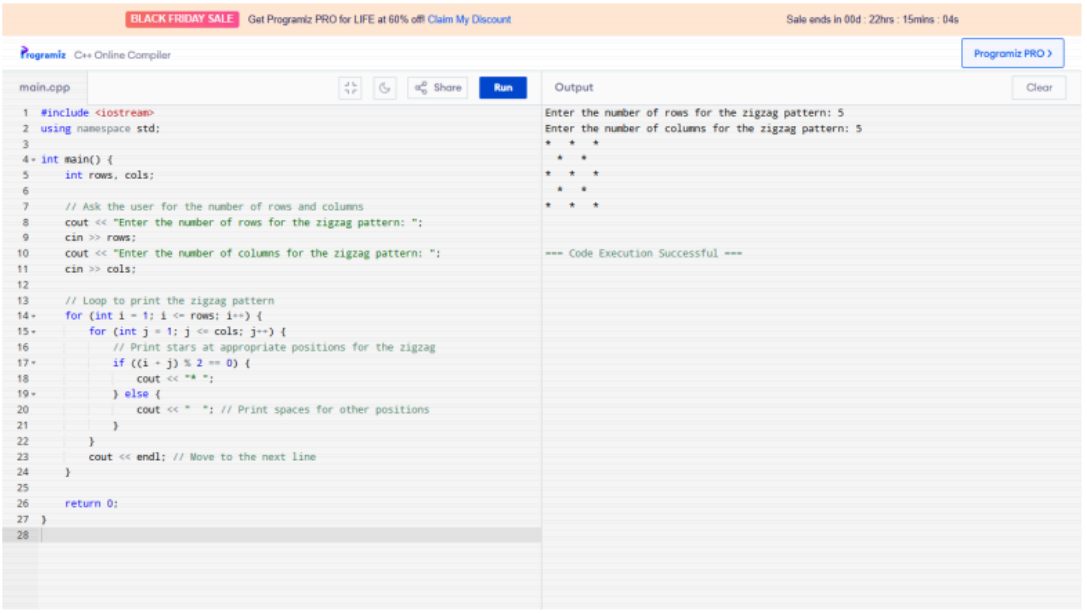
12. Plus Sign



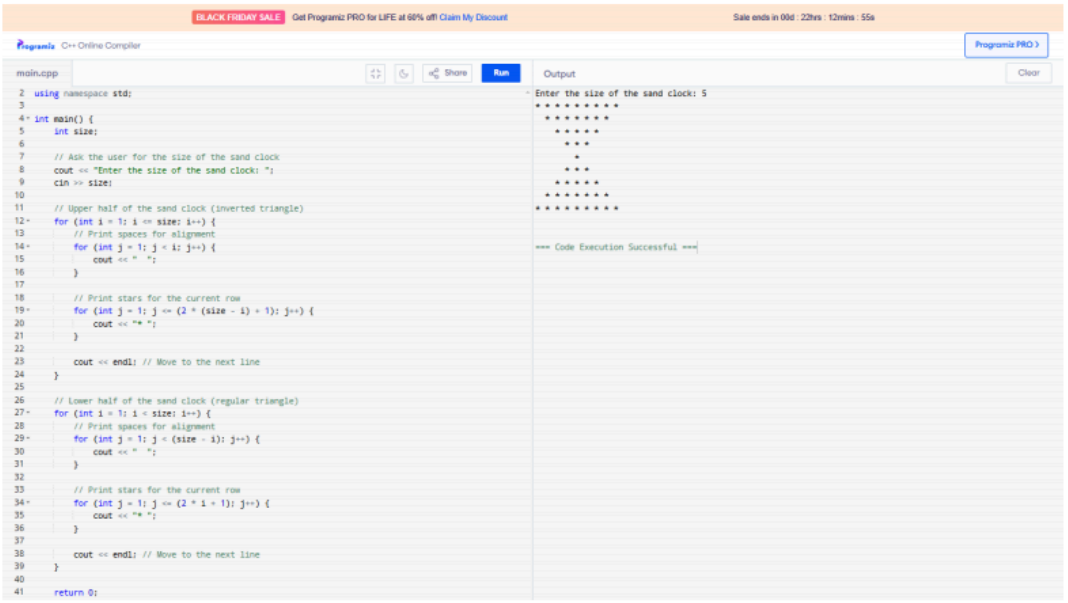
13. Triangle with Borders



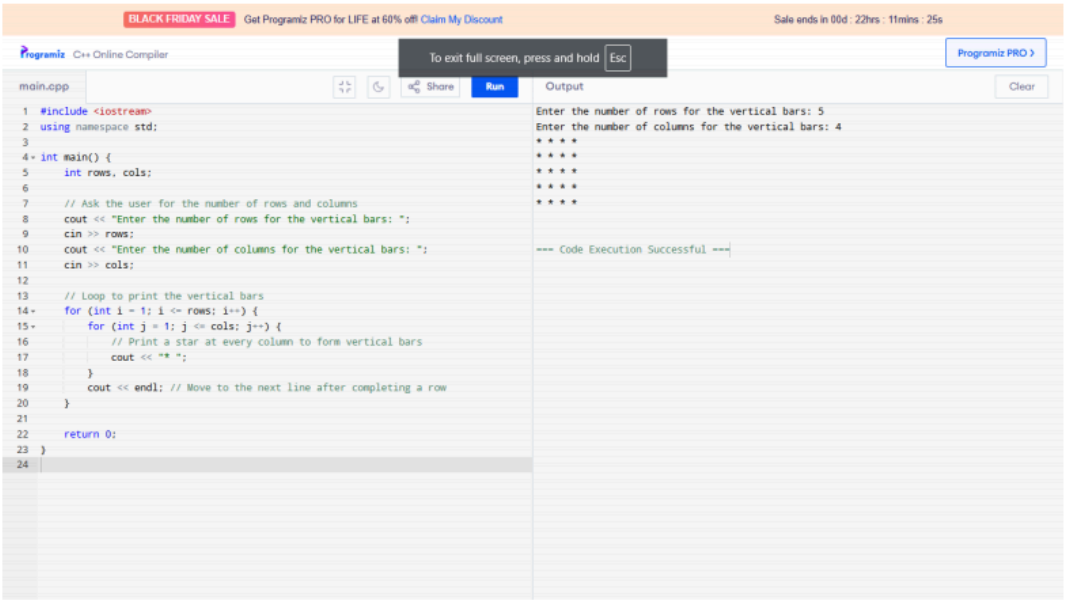
14. Zigzag Pattern

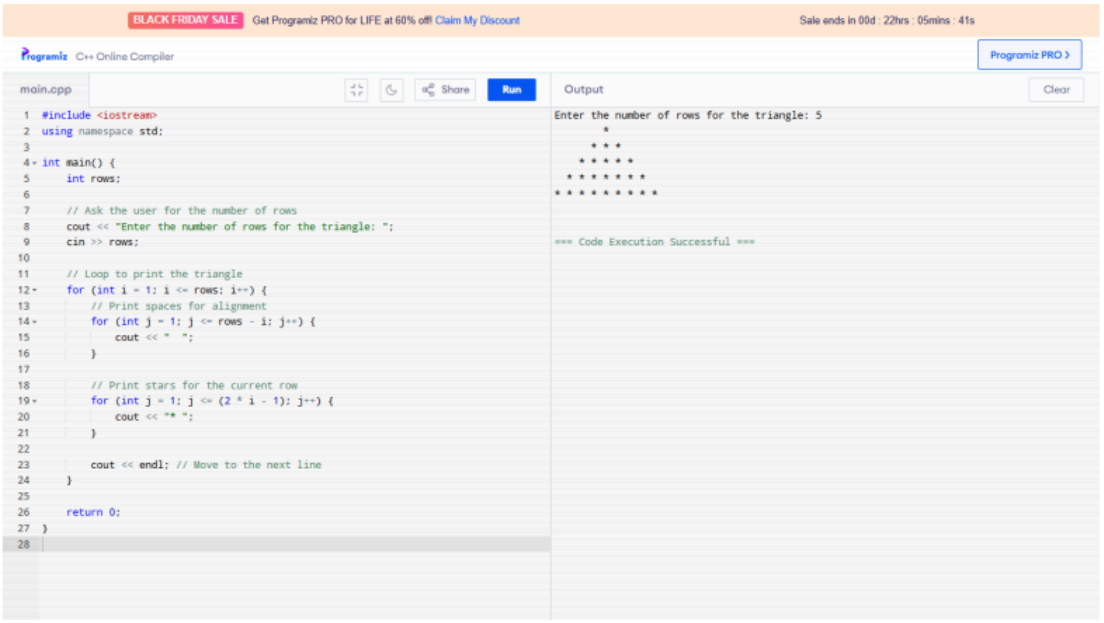


15. Sand Clock

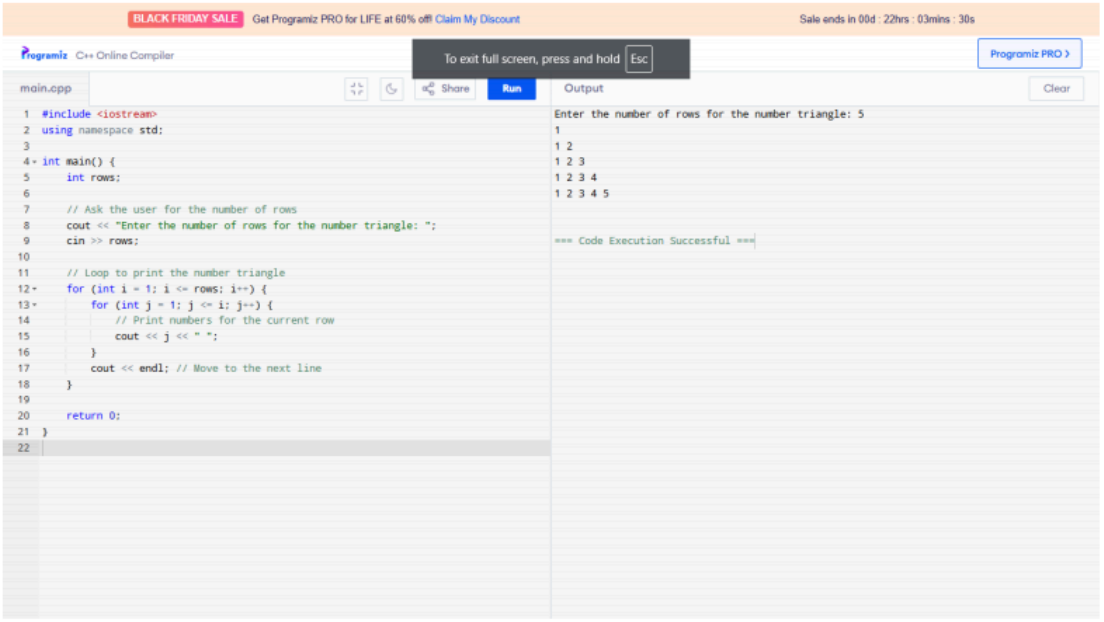


17. Hollow Triangle

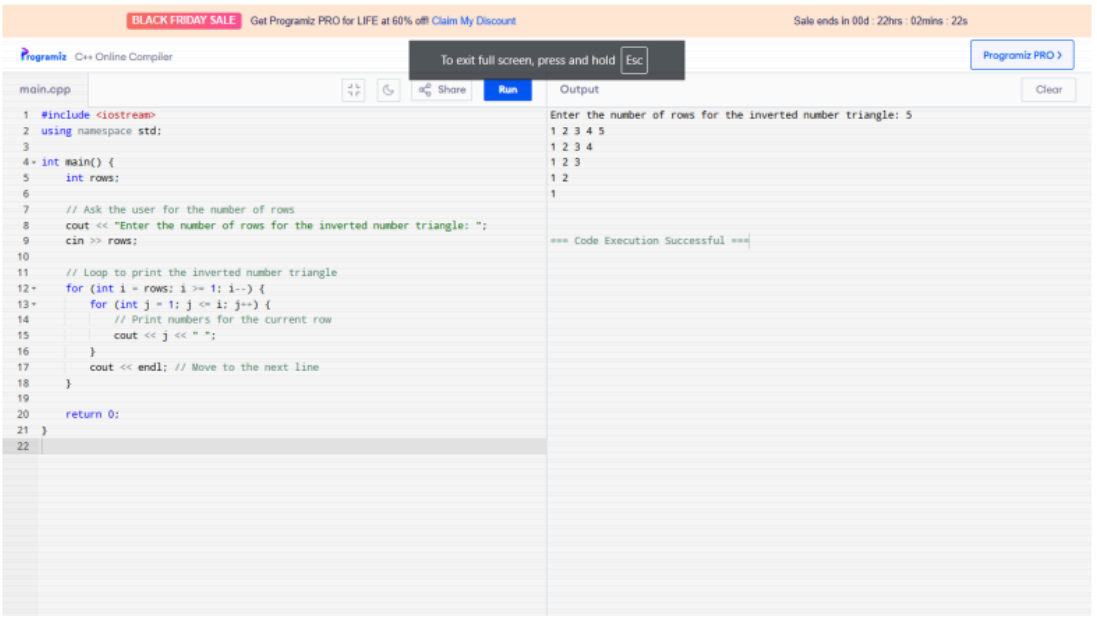




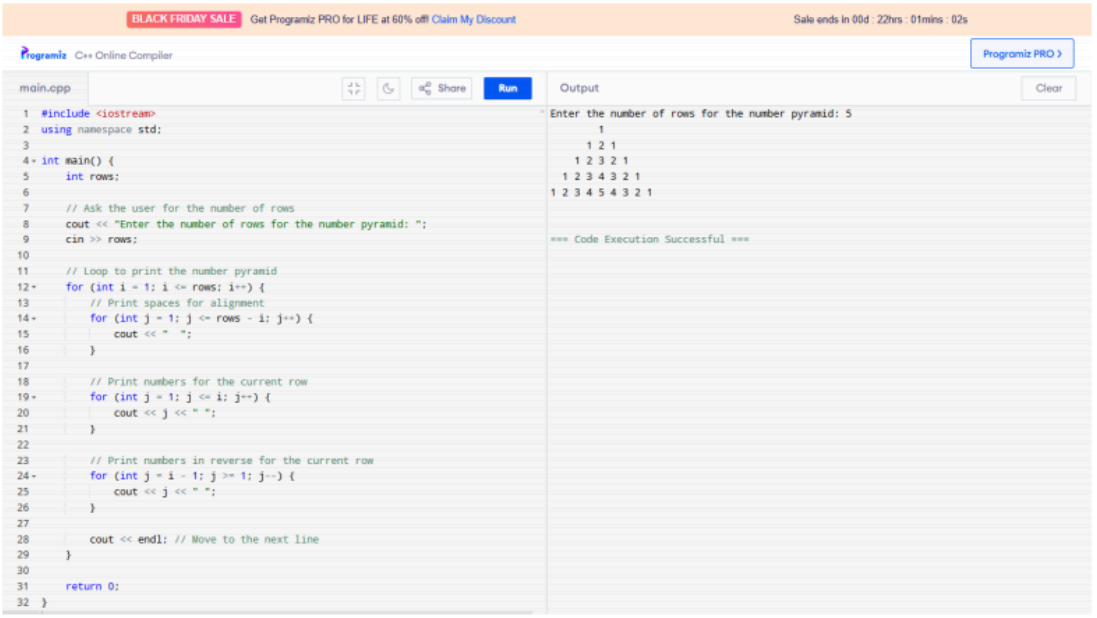
18. Number Triangle



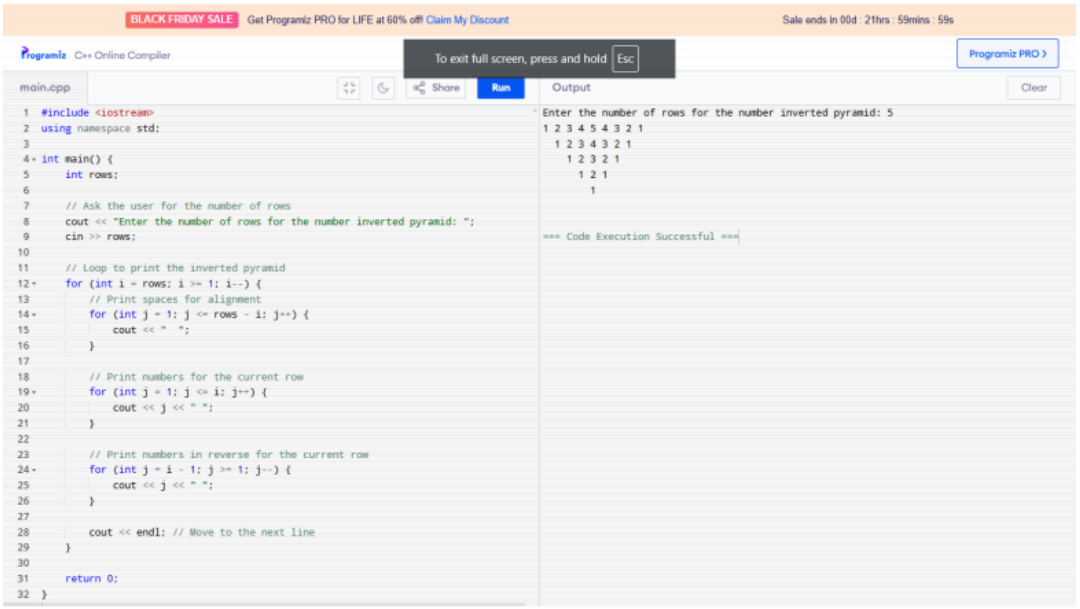
19. Inverted Number Triangle



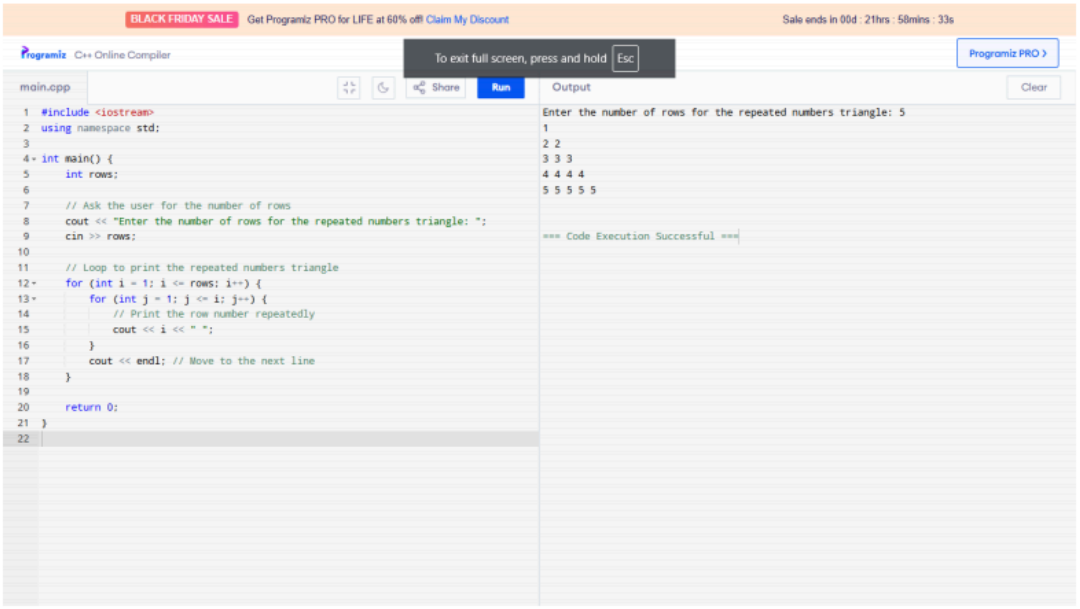
20. Number Pyramid



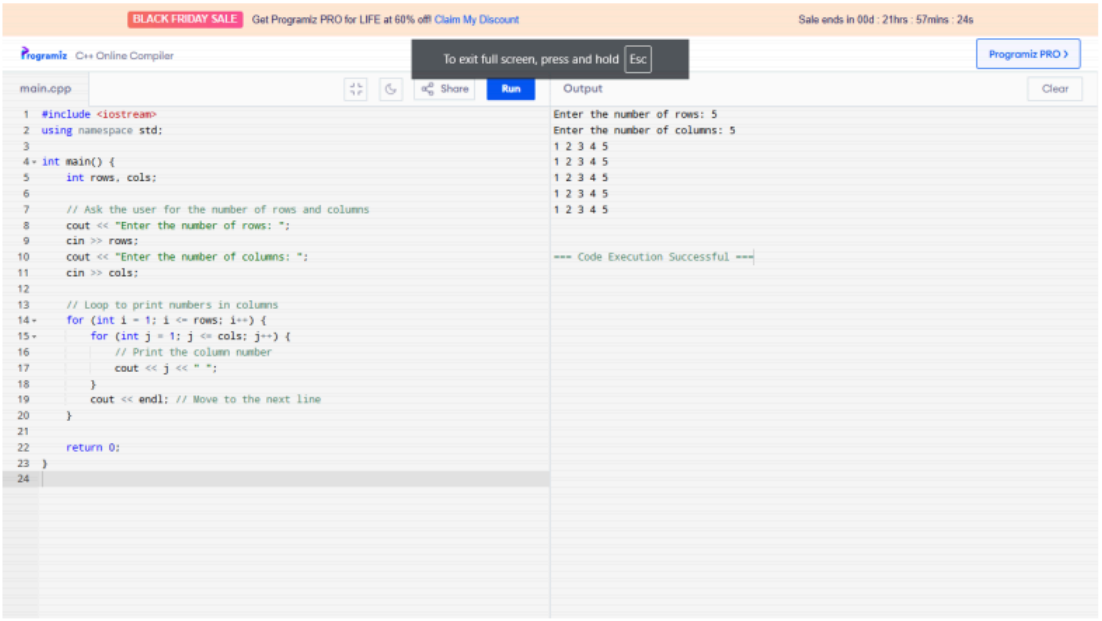
21. Number Inverted Pyramid



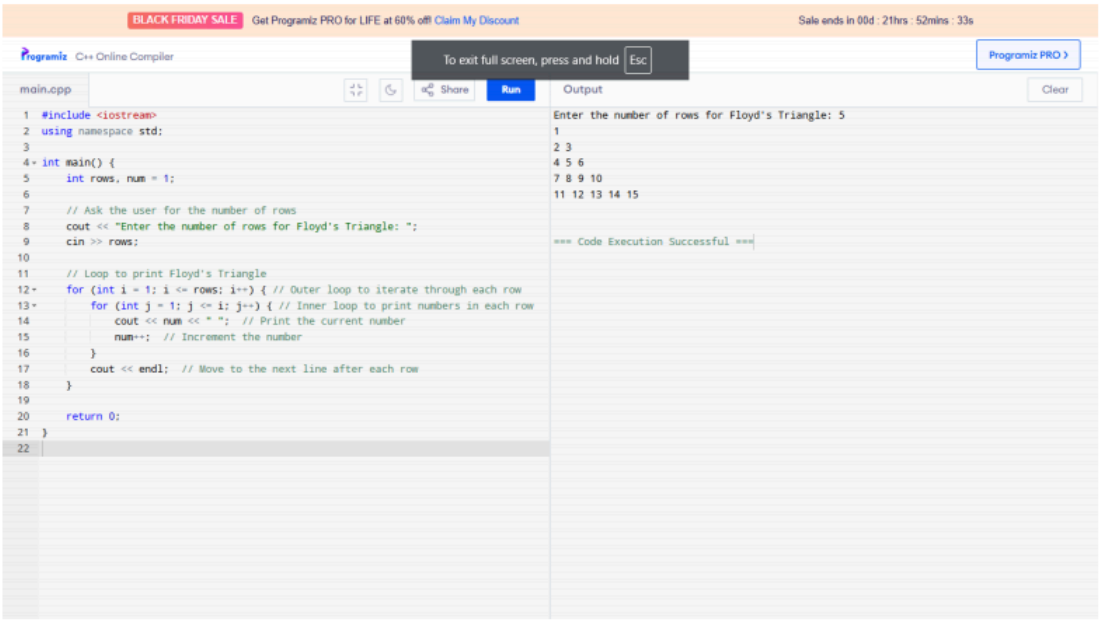
22. Repeated Numbers



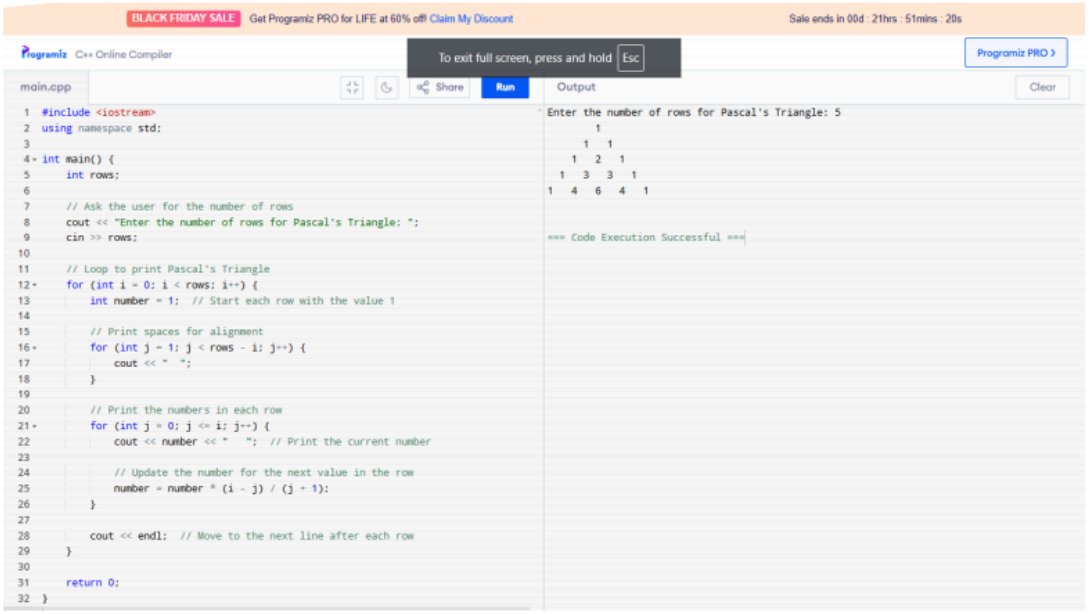
23. Numbers in Columns



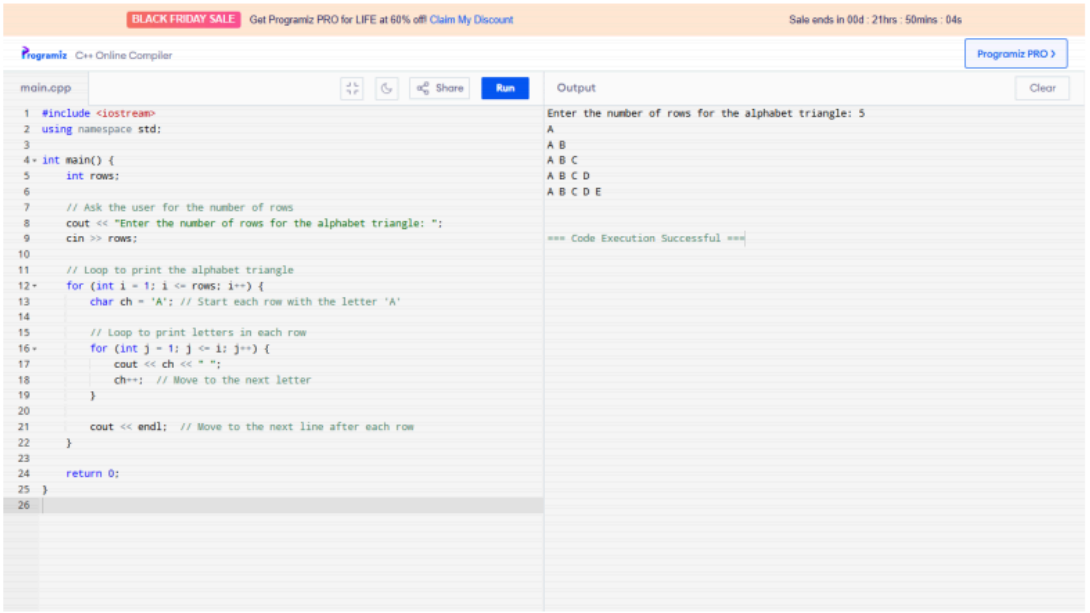
24. Floyd's Triangle



25. Pascal's Triangle

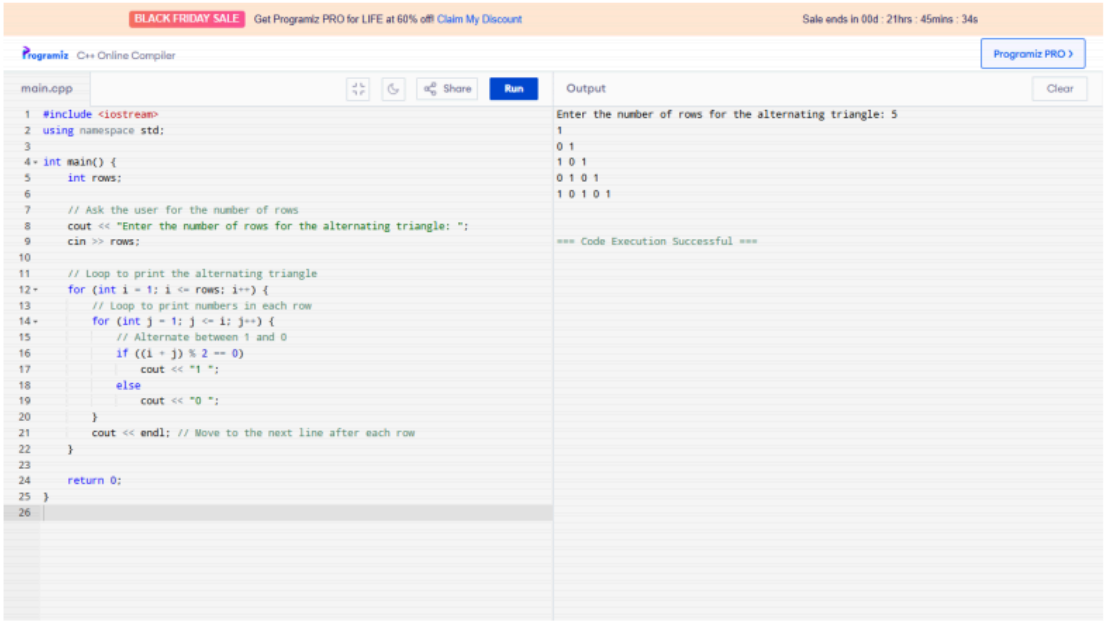


26. Alphabet Triangle

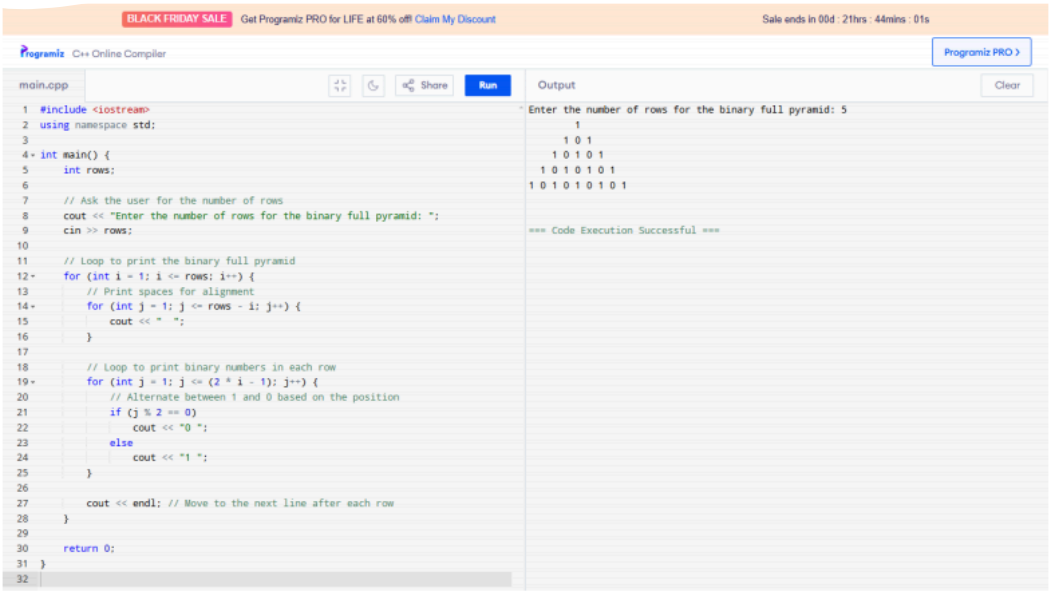


27. Alphabet Pyramid

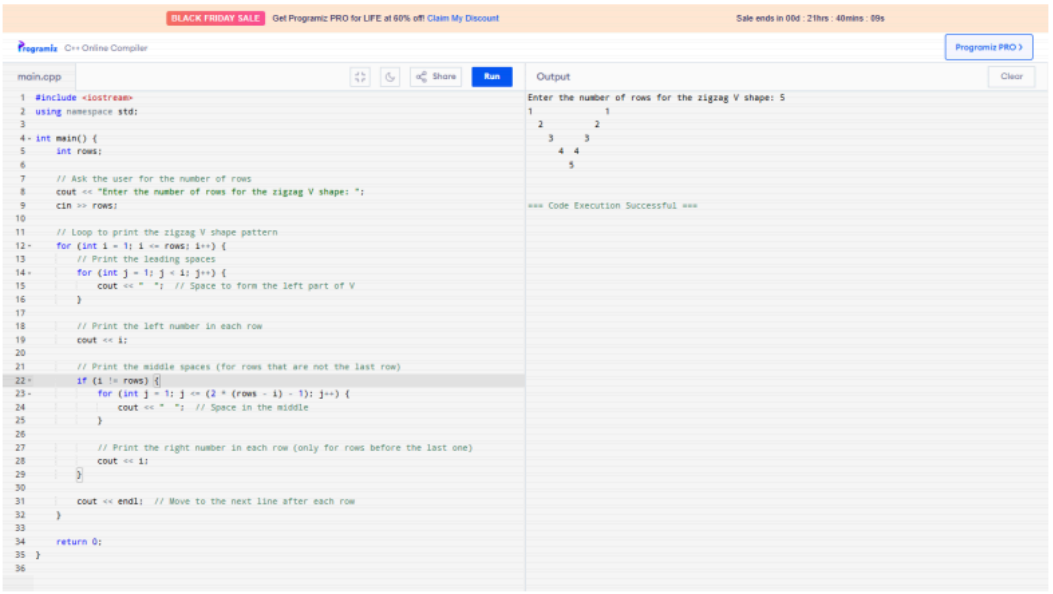
28. Alternating Triangle



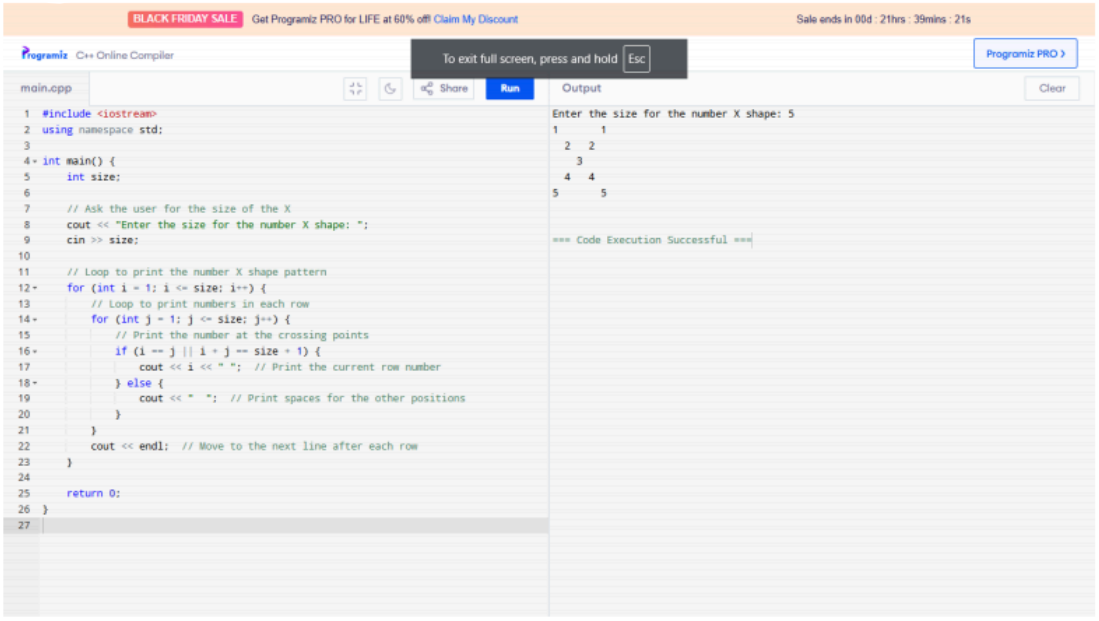
29. Binary Pyramid



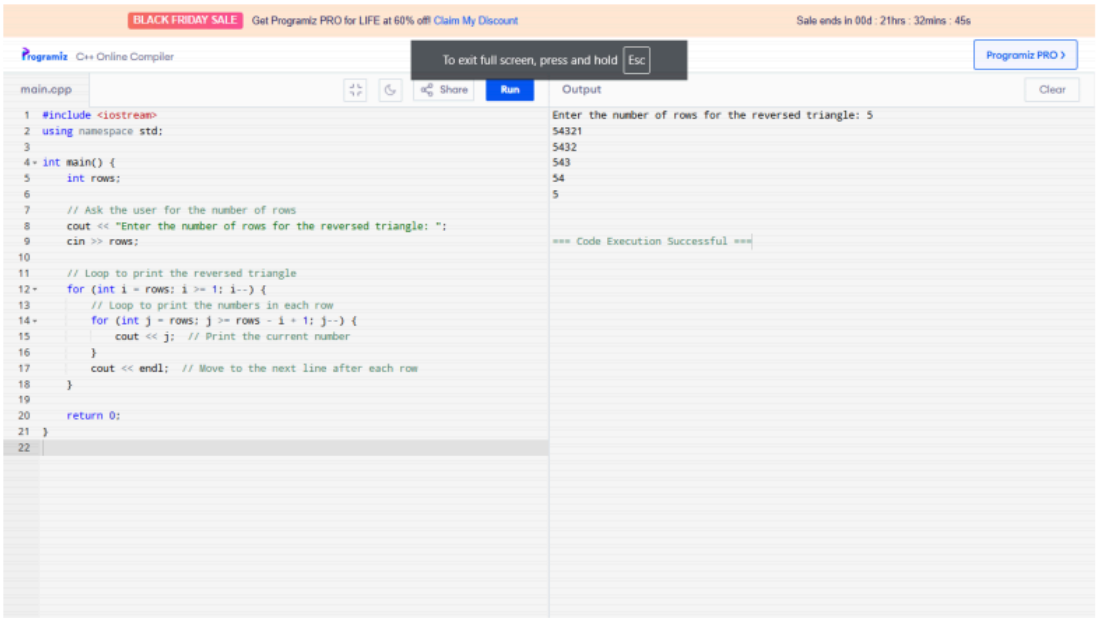
30. Zigzag with Numbers



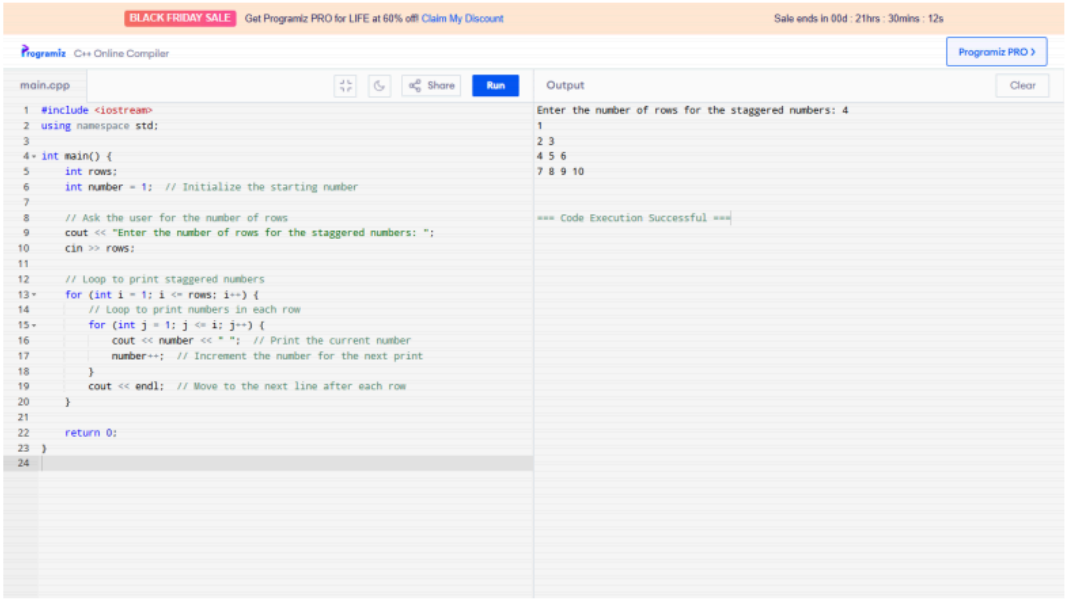
31. Number X Shape



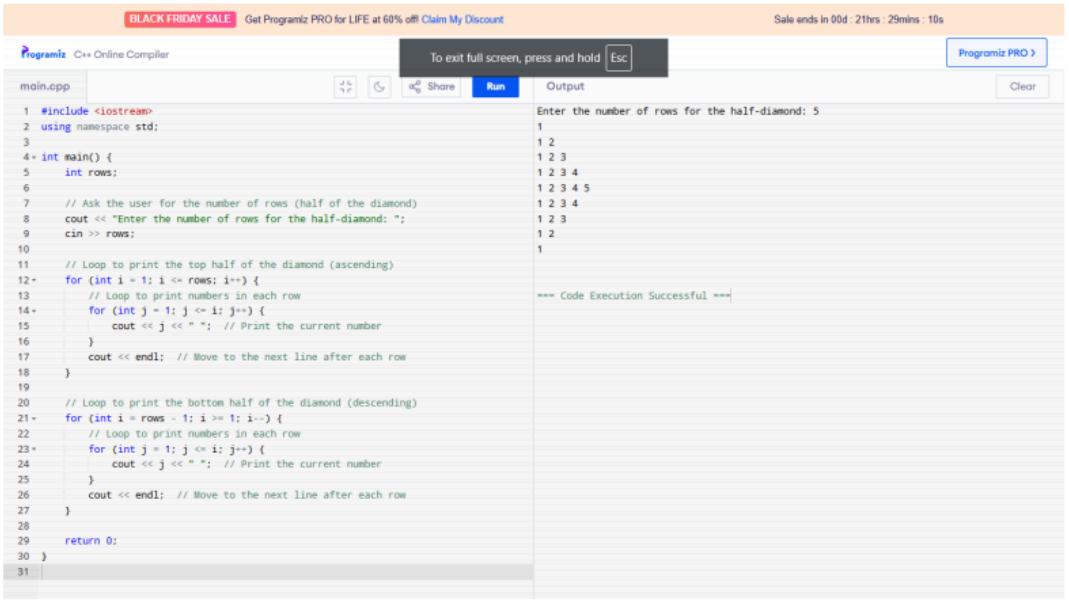
32. Reversed Triangle



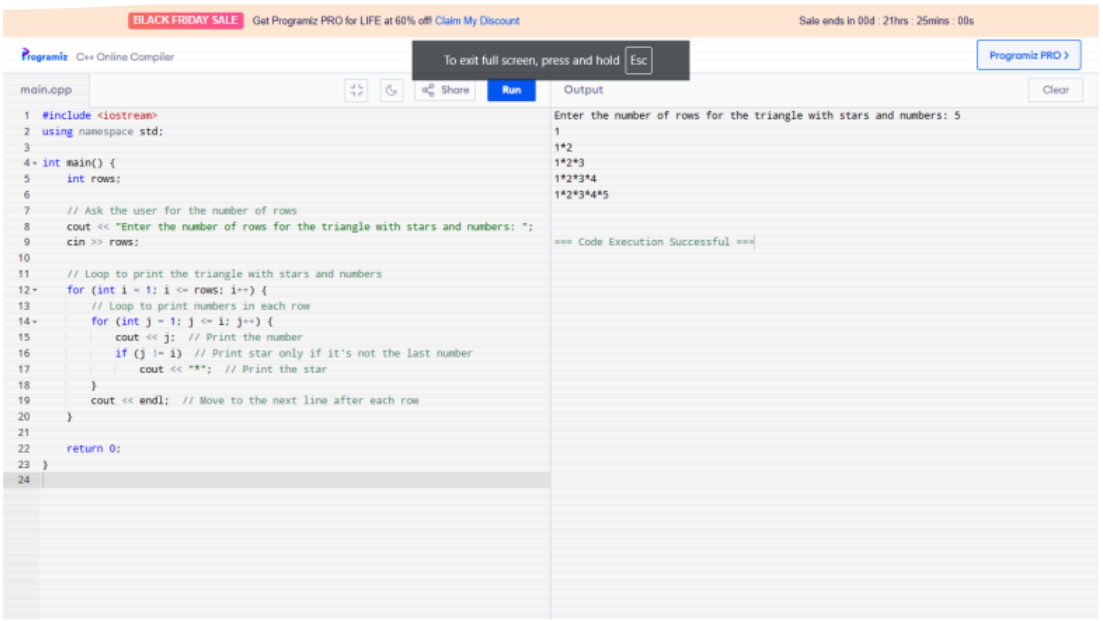
33. Staggered Numbers



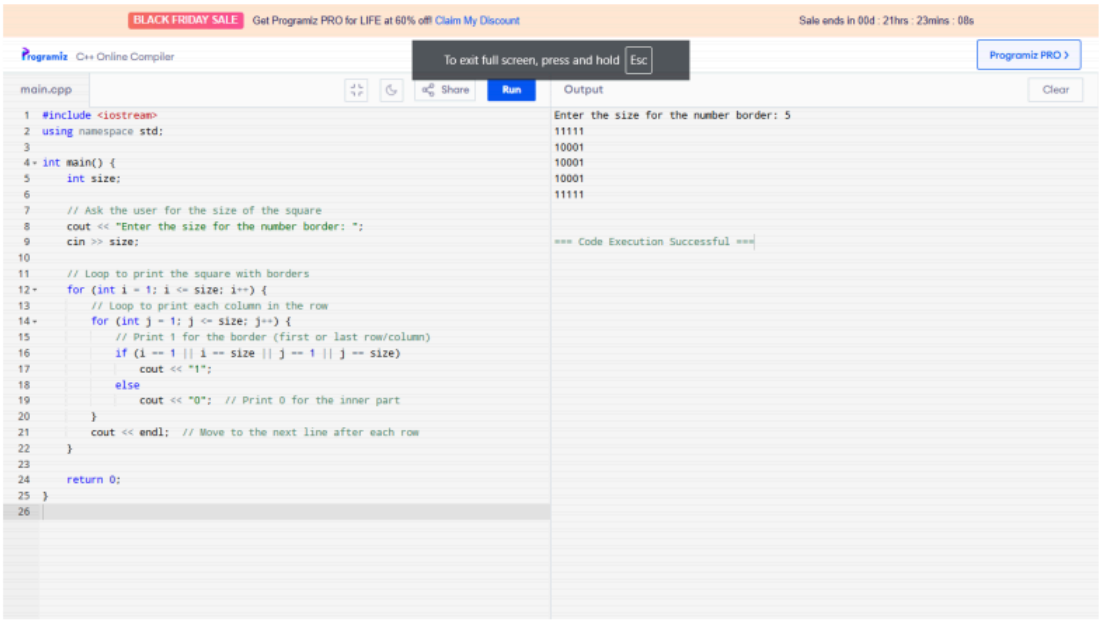
34. Half-Diamond Numbers



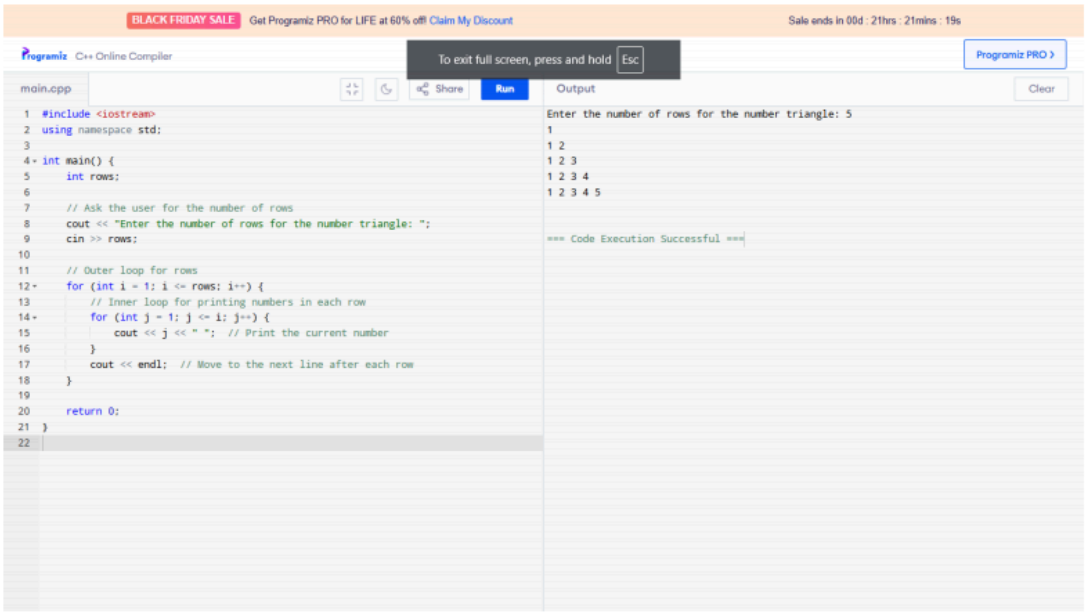
35. Triangle with Stars and Numbers



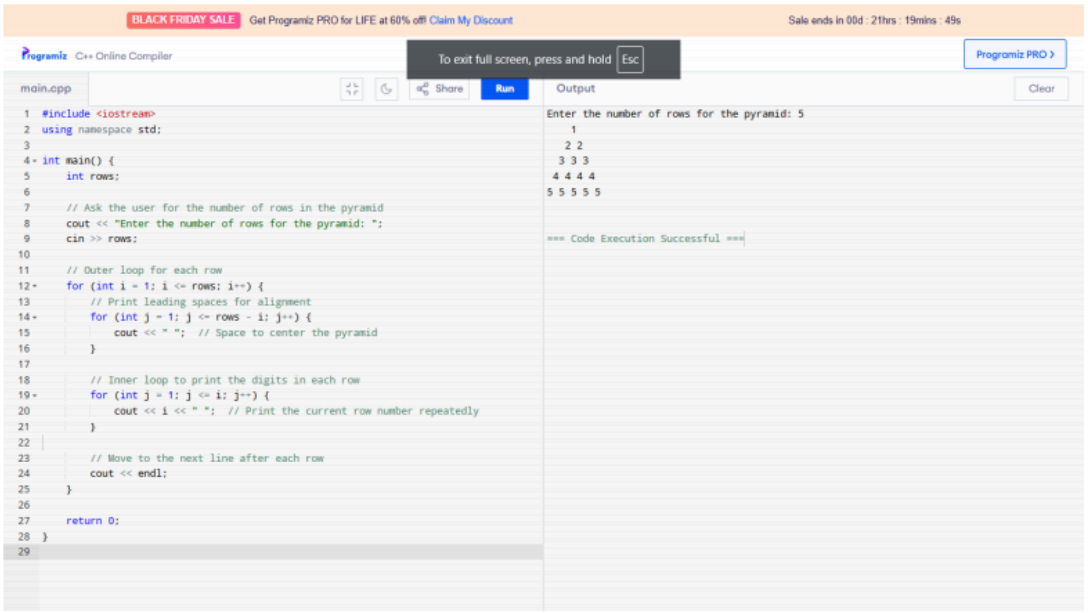
36. Number Borders



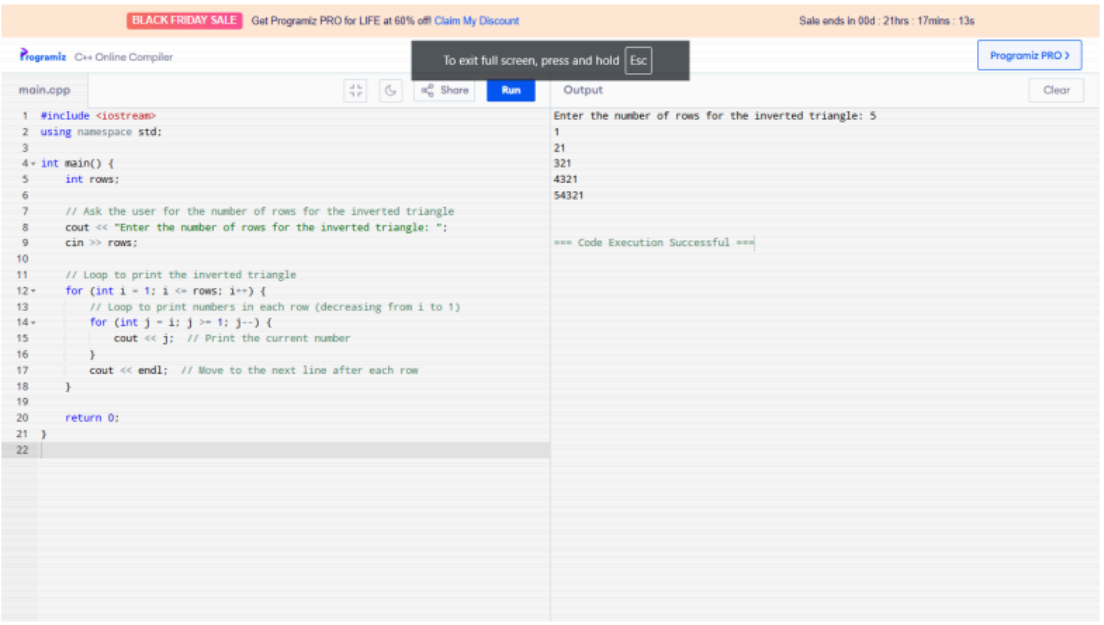
37. Nested Loops



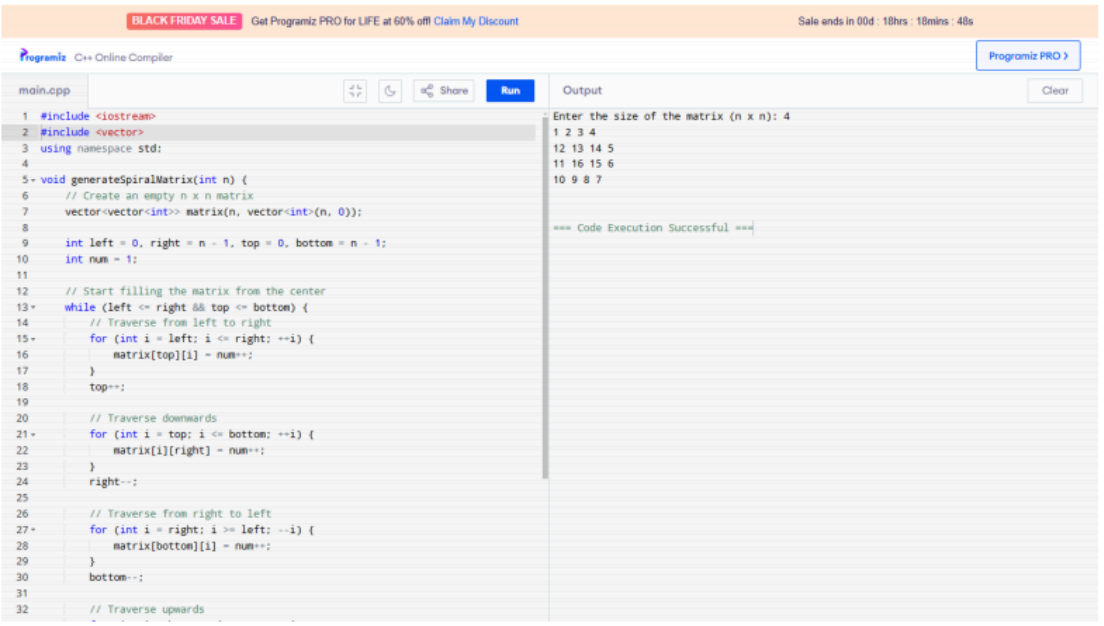
38. Pyramid of Digits

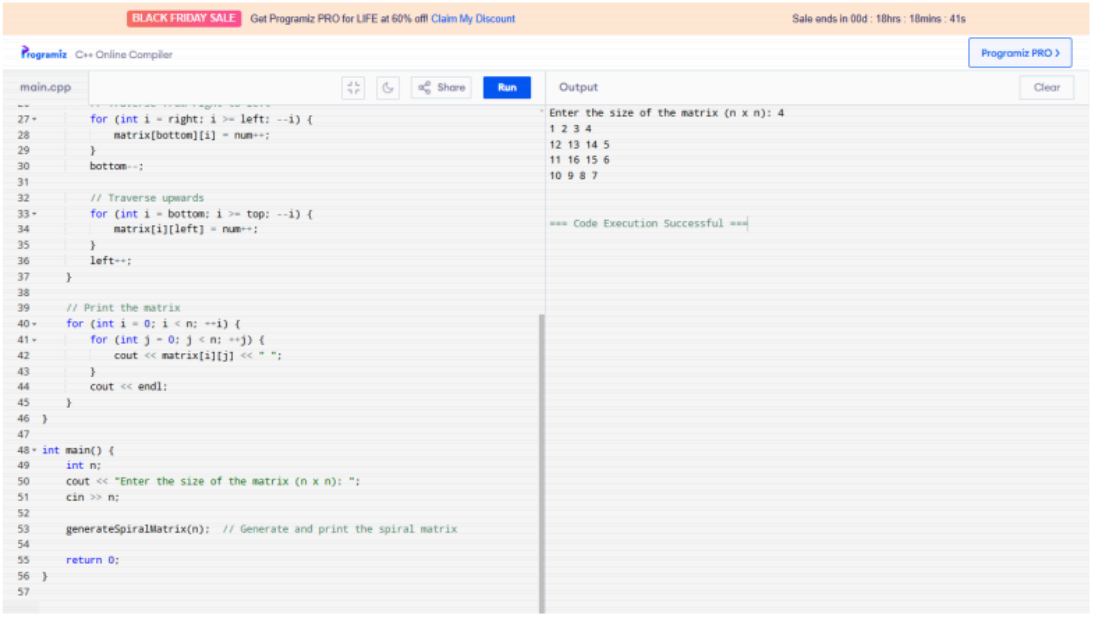


39. Inverted Triangle Numbers

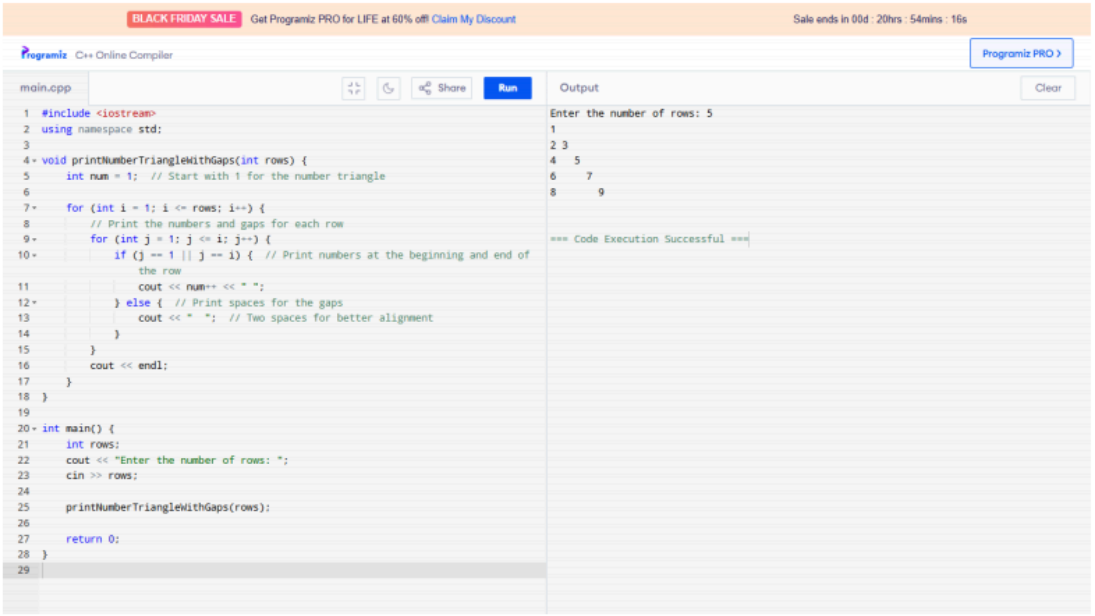


40. Spiral Matrix

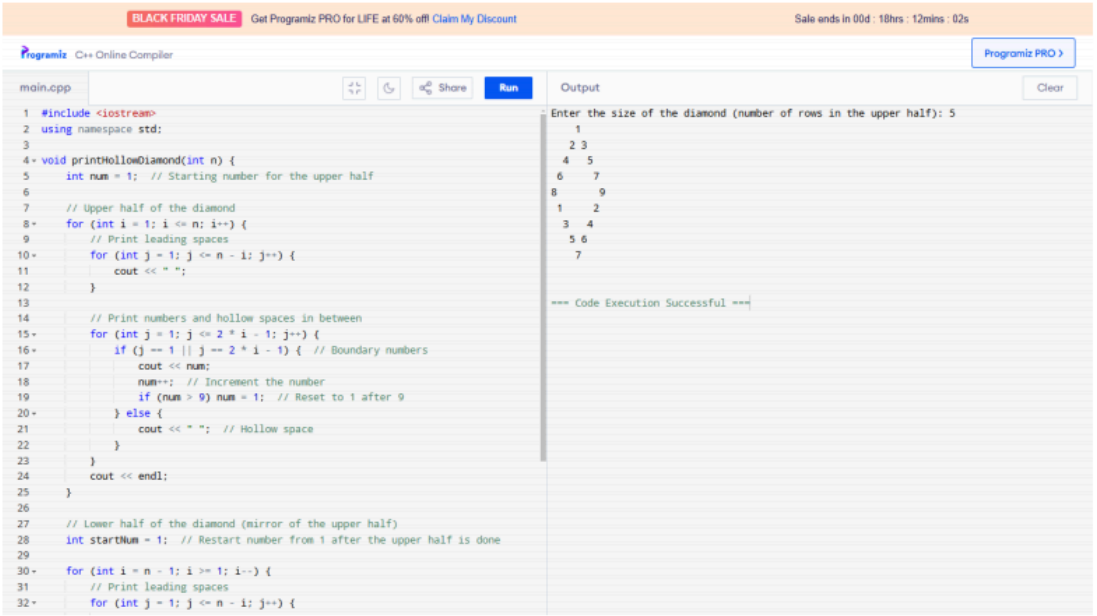


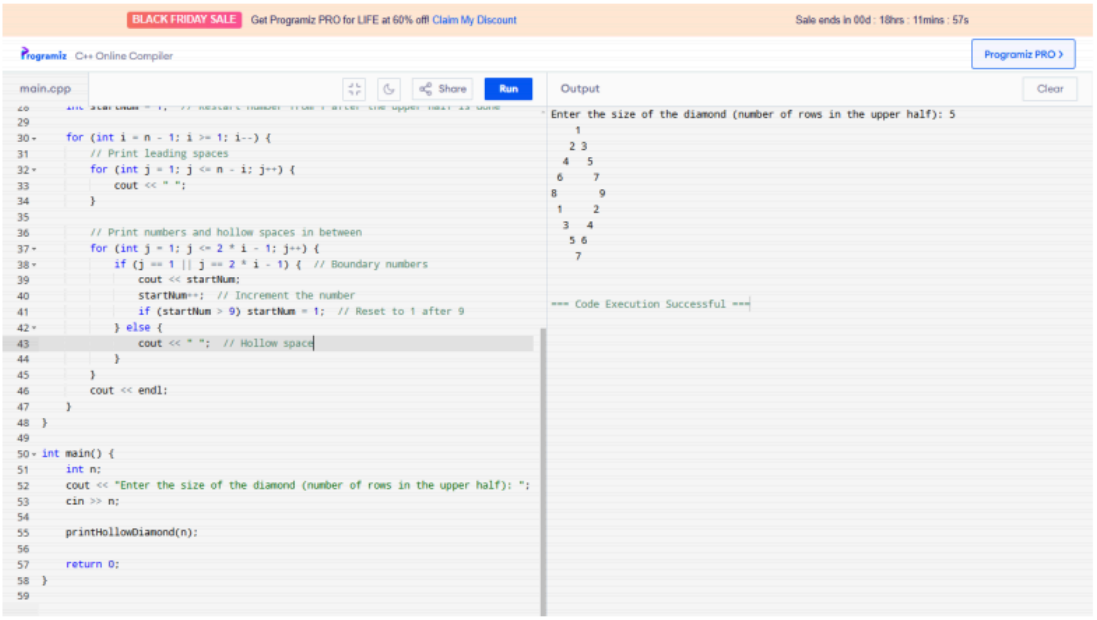


41. Number Pyramid with Gaps



42. Diamond Spiral





43. Checkerboard Numbers with Conditions

Programiz C++ Online Compiler

main.cpp Share Run Output Clear

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

void printCheckerboard(int rows, int cols) {
    // Loop through each row
    for (int i = 0; i < rows; i++) {
        // Loop through each column in the current row
        for (int j = 0; j < cols; j++) {
            // Check if the sum of the row index and column index is even or odd
            if ((i + j) % 2 == 0) {
                cout << "1 ";  // Print 1 for even sum of indices
            } else {
                cout << "0 ";  // Print 0 for odd sum of indices
            }
        }
        cout << endl;  // Move to the next line after printing the row
    }
}

int main() {
    int rows = 5, cols = 5;  // You can adjust rows and columns here

    printCheckerboard(rows, cols);

    return 0;
}
```

```
1 0 1 0 1
0 1 0 1 0
1 0 1 0 1
0 1 0 1 0
1 0 1 0 1


=== Code Execution Successful ===
```

44. Snake Pattern

Programiz C++ Online Compiler

main.cpp Share Run Output Clear

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

void printSnakePattern(int rows, int cols) {
    int num = 1;  // Starting number

    for (int i = 0; i < rows; i++) {
        if (i % 2 == 0) {  // For even rows, print left to right
            for (int j = 0; j < cols; j++) {
                cout << num++ << " ";
            }
        } else {  // For odd rows, print right to left
            int temp = num + cols - 1;
            for (int j = 0; j < cols; j++) {
                cout << temp-- << " ";
            }
            num += cols;  // Update num to the next starting number
        }
        cout << endl;  // Move to the next row
    }
}

int main() {
    int rows = 4, cols = 5;  // Adjust dimensions as needed
    printSnakePattern(rows, cols);
    return 0;
}
```

```
1 2 3 4 5
10 9 8 7 6
11 12 13 14 15
20 19 18 17 16


=== Code Execution Successful ===
```