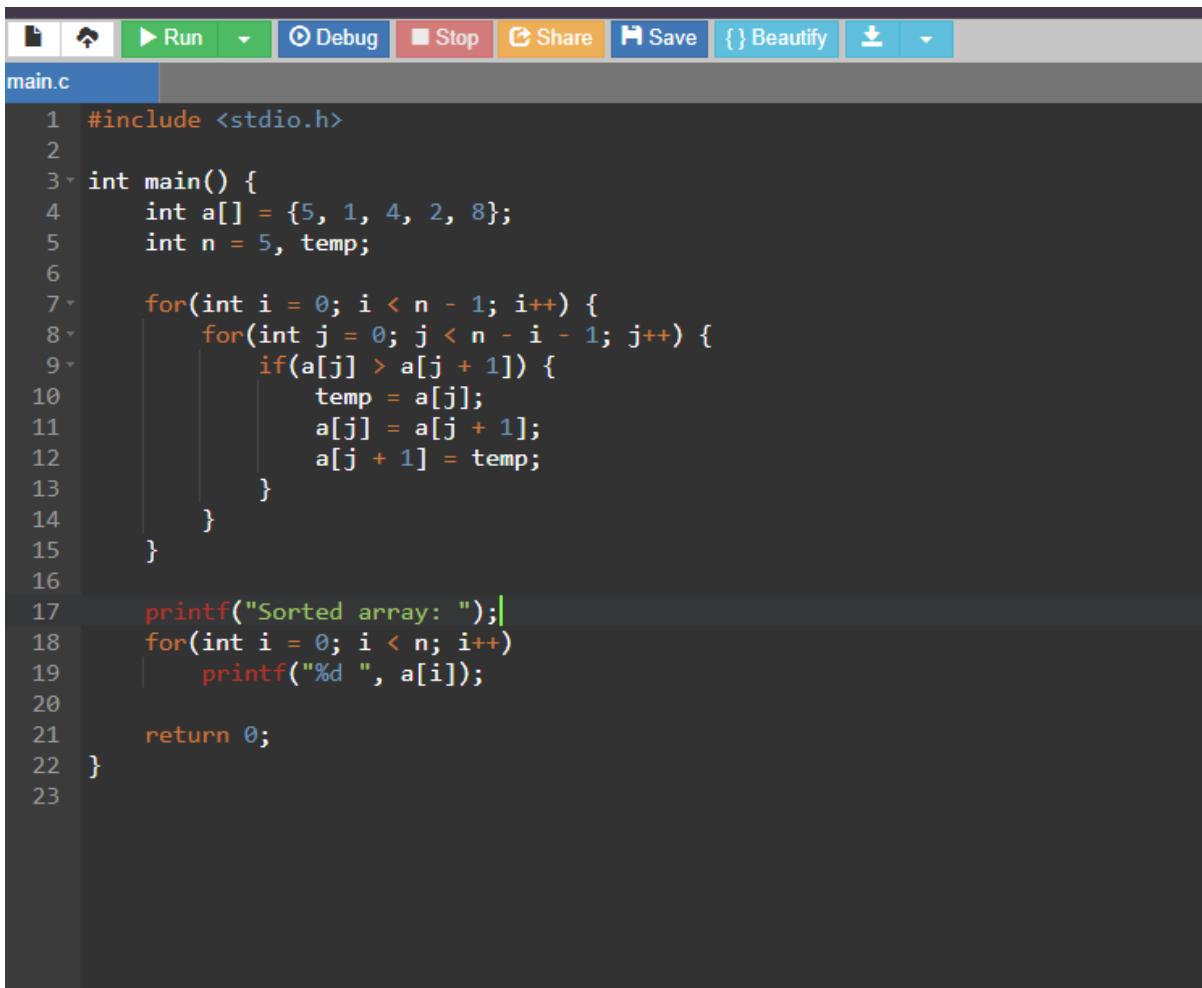


Bubble sort:

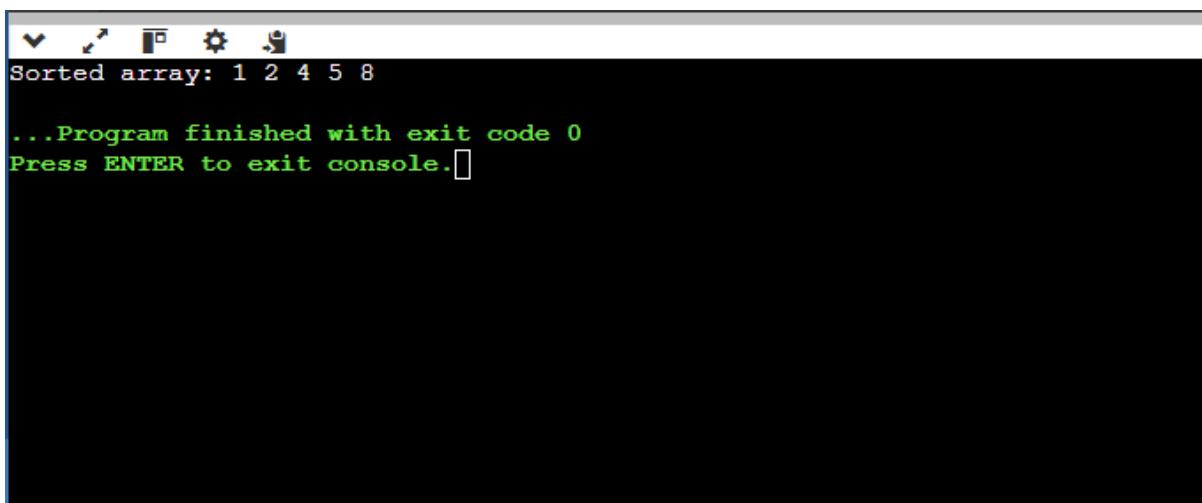
Code:



The screenshot shows a code editor window with a dark theme. The file tab at the top is labeled "main.c". The code itself is a C program that implements bubble sort. It starts with the inclusion of stdio.h, defines an array a with initial values {5, 1, 4, 2, 8}, and initializes n to 5. A nested loop structure is used for sorting: the outer loop runs from i = 0 to n - 1, and the inner loop runs from j = 0 to n - i - 1. Inside the inner loop, if a[j] is greater than a[j + 1], their values are swapped through a temporary variable temp. After the loops complete, the sorted array is printed using printf. The code ends with a return statement.

```
1 #include <stdio.h>
2
3 int main() {
4     int a[] = {5, 1, 4, 2, 8};
5     int n = 5, temp;
6
7     for(int i = 0; i < n - 1; i++) {
8         for(int j = 0; j < n - i - 1; j++) {
9             if(a[j] > a[j + 1]) {
10                 temp = a[j];
11                 a[j] = a[j + 1];
12                 a[j + 1] = temp;
13             }
14         }
15     }
16
17     printf("Sorted array: ");
18     for(int i = 0; i < n; i++)
19         printf("%d ", a[i]);
20
21     return 0;
22 }
```

Output:



The screenshot shows a terminal window with a dark theme. The output begins with the text "Sorted array: 1 2 4 5 8", followed by "...Program finished with exit code 0", and ends with "Press ENTER to exit console.". The terminal window has a standard set of icons at the top.

```
Sorted array: 1 2 4 5 8
...Program finished with exit code 0
Press ENTER to exit console.[]
```