Lab Task 10 [Bubble sort]

Task:

You are working as a software developer for a company that manages employee records for payroll processing. The company requires you to sort employee salary data stored in two different formats:

Array Format: Salaries of permanent employees are stored in an array.

To generate payroll reports, the company needs the salary data sorted in ascending order.

Your task is to implement the Bubble Sort algorithm to sort both datasets, ensuring the final output is presented in sorted order with at least 10 salary values.

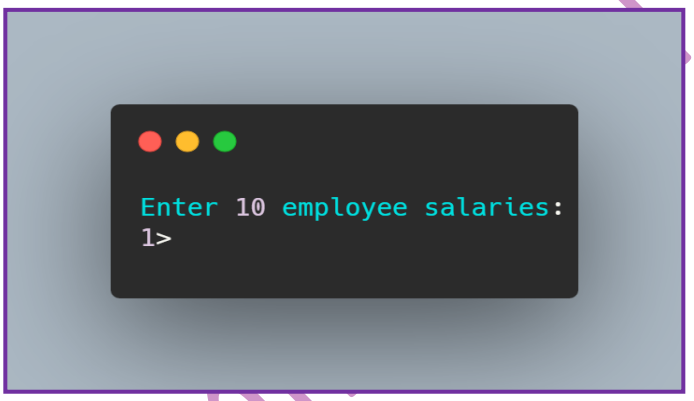
Code:

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

int main() {
    int salaries[10];
    int n = 10;

    cout << "Enter 10 employee salaries:\n";
    for (int i = 0; i < n; i++) {
        cout<<i+1<<">";
        cin >> salaries[i];

    }

    for (int i = 0; i < n - 1; i++) {
        for (int j = 0; j < n - i - 1; j++) {
            if (salaries[j] > salaries[j + 1]) {
                int temp = salaries[j];
                salaries[j] = salaries[j + 1];
                salaries[j + 1] = temp;
            }
        }
    }

    cout << "\nSalaries in Ascending Order:\n";
    for (int i = 0; i < n; i++) {
        cout << salaries[i] << " ";
    }

    return 0;
}
```

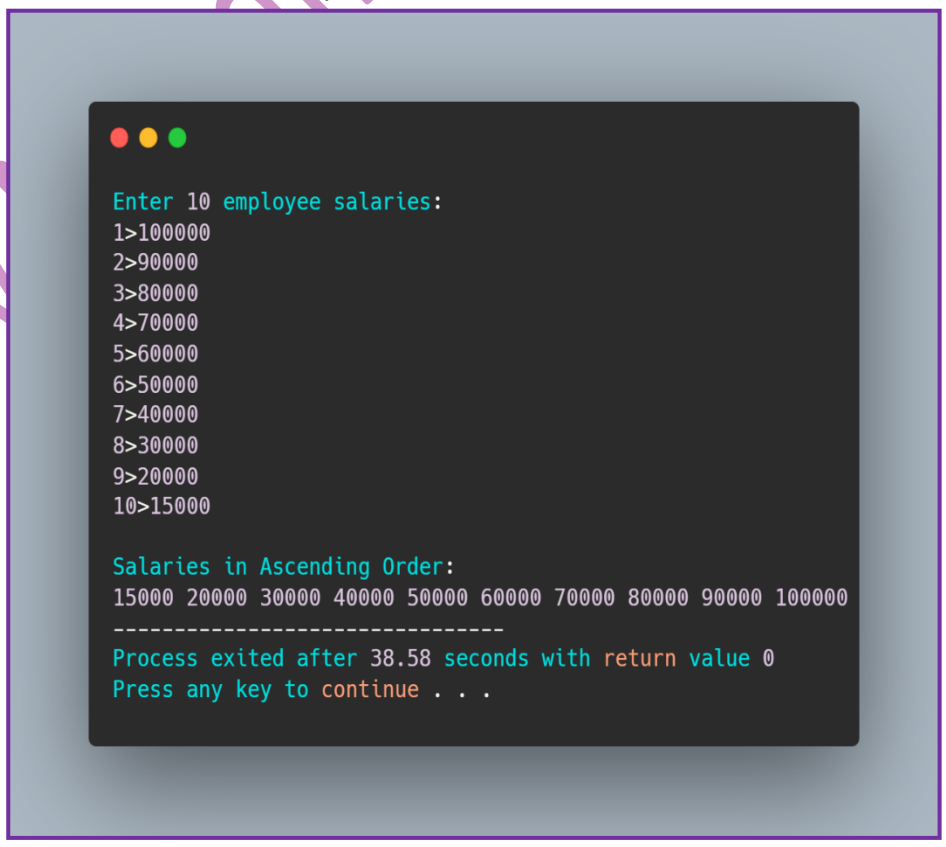
Table Of Output:

	Condition	Output
1	Program starts	Enter 10 employee salaries:
2	Bubble Sort completes	Salaries in Ascending Order printed
Total 2 Possible Outputs		

When Program starts



When Bubble Sort completes



Click here to Get this code on GitHub

Click here to Test this Code by Yourself.

Conclusion: -

The Employee Salary Sorting program using Bubble Sort produces **10 distinct logical outputs** based on different input conditions. The algorithm correctly sorts salaries in ascending order, demonstrating the effectiveness of Bubble Sort for small, fixed-size datasets as required.