

INSERTION SORT

Write a C++ program to implement the **Insertion Sort** algorithm to sort an array of integers in ascending order.

```
1. #include <iostream>
2. using namespace std;
3. void insertionSort(int arr[], int n)
4. {
5.     for (int i = 1; i < n; i++)
6.     {
7.         int key = arr[i];           // element to be inserted
8.         int j = i - 1;
9.
10.        // Move elements greater than key to one position ahead
11.        while (j >= 0 && arr[j] > key)
12.        {
13.            arr[j + 1] = arr[j];
14.            j = j - 1;
15.        }
16.        arr[j + 1] = key;           // insert the key at correct position
17.    }
18. }
19.
20. int main()
21. {
22.     int n;
23.
24.     cout << "Enter number of elements: ";
25.     cin >> n;
26.
27.     int arr[n];
28.     cout << "Enter elements: ";
29.     for (int i = 0; i < n; i++)
30.         cin >> arr[i];
31.
32.     insertionSort(arr, n);
33.
34.     cout << "Sorted array: ";
35.     for (int i = 0; i < n; i++)
36.         cout << arr[i] << " ";
37.
38.     return 0;
39. }
40.
```