

# SELECTION SORT

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

**Code:-**

```
1. #include <iostream>
2. using namespace std;
3. void selectionSort(int arr[], int n)
4. {
5.     for (int i = 0; i < n - 1; i++)
6.     {
7.         int minIndex = i;
8.
9.         // Find the index of the minimum element
10.        for (int j = i + 1; j < n; j++)
11.        {
12.            if (arr[j] < arr[minIndex])
13.                minIndex = j;
14.        }
15.
16.        // Swap if new minimum is found
17.        if (minIndex != i)
18.            swap(arr[i], arr[minIndex]);
19.    }
20. }
21.
22. int main()
23. {
24.     int n;
25.
26.     cout << "Enter number of elements: ";
27.     cin >> n;
28.
29.     int arr[n];
30.     cout << "Enter elements: ";
31.     for (int i = 0; i < n; i++)
32.         cin >> arr[i];
33.
34.     selectionSort(arr, n);
35.
36.     cout << "Sorted array: ";
37.     for (int i = 0; i < n; i++)
38.         cout << arr[i] << " ";
39.
40.     return 0;
41. }
42.
```