Selection in C++

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

void selectionSort(int arr[], int n)
{
    for (int i = 0; i < n - 1; i++)
    {
        int minidx = i;
        for (int j = i + 1; j < n; j++)
        {
            if (arr[j] < arr[minidx])
            {
                minidx = j;
            }
        }
        swap(arr[i], arr[minidx]);
    }
}

int main() {
    int arr[] = {64, 25, 12, 22, 11};
    int n = sizeof(arr)/sizeof(arr[0]);
    selectionSort(arr, n);
    cout << "Sorted array: \n";
    for(int i = 0; i < n; i++) {
        cout << arr[i] << " ";
    }
    return 0;
}
```

Input:

arr[] = {64, 25, 12, 22, 11}

📊 Selection Sort Dry Run Table

Pass	i	Initial minidx	Comparisons	New minidx	Swap (arr[i] ↔ arr[minidx])	Array after pass
1	0	0 (64)	25 < 64 → 12 < 25 → 22 < 12 → 11 < 12	4 (11)	64 ↔ 11	[11, 25, 12, 22, 64]
2	1	1 (25)	12 < 25 → 22 < 12	2 (12)	25 ↔ 12	[11, 12, 25, 22, 64]
3	2	2 (25)	22 < 25	3 (22)	25 ↔ 22	[11, 12, 22, 25, 64]
4	3	3 (25)	64 > 25	3	25 ↔ 25 (no change)	[11, 12, 22, 25, 64]

✅ Final Output:

Sorted array:
11 12 22 25 64

11 12 22 25 64