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#include <iostream>

using namespace std;

// Function to swap two elements
void swap(int &a, int &b) {
    int temp = a;
    a = b;
    b = temp;
}

// Partition function
int partition(int arr[], int low, int high) {
    int pivot = arr[high]; // choosing last element as pivot
    int i = low - 1;

    for (int j = low; j < high; j++) {
        if (arr[j] < pivot) {
            i++;
            swap(arr[i], arr[j]);
        }
    }

    swap(arr[i + 1], arr[high]);
    return i + 1;
}
```

```
// QuickSort function

void quickSort(int arr[], int low, int high) {
    if (low < high) {
        int p = partition(arr, low, high);
        quickSort(arr, low, p - 1);
        quickSort(arr, p + 1, high);
    }
}
```

```
// Main function

int main() {
    int arr[100], n;
    cout << "Enter number of elements: ";
    cin >> n;

    cout << "Enter elements: ";
    for (int i = 0; i < n; i++)
        cin >> arr[i];

    quickSort(arr, 0, n - 1);

    cout << "Sorted array: ";
    for (int i = 0; i < n; i++)
        cout << arr[i] << " ";

    return 0;
}
```

}