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1Q :-- Write a program to sort an array and perform sequential search.

Ans:---

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

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

int linear(int arr[], int n, int target) {
    for (int i = 0; i < n; i++) {
        if (arr[i] == target) {
            return i;
        }
    }
    return -1;
}

int main() {
    int arr[] = {5, 2, 8, 3, 1, 9};
    int n = sizeof(arr)/sizeof(arr[0]);
    int target = 3;

    sort(arr, n);

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

```
cout << endl;

int index = linear(arr, n, target);
if (index != -1) {
    cout << "element at: " << index << endl;
} else {
    cout << "element not found" << endl;
}

return 0;
}
```