Lab Question 7: Identify Location of an Element

Aim:

To write a C program to identify the location of an element in an array.

Algorithm:

- 1. Start the program.
- 2. Read array elements.
- 3. Input element to find.
- 4. Compare each element with the target.
- 5. If found, print index.
- 6. Stop.

Code:

```
#include <stdio.h>
int main() {
  int arr[5] = {10,20,30,40,50}, key, i, pos=-1;
  printf("Enter element to find: ");
  scanf("%d", &key);
  for (i = 0; i < 5; i++) {
    if (arr[i] == key) { pos = i; break; }
  }
  if (pos != -1) printf("Element %d found at index %d", key, pos);
  else printf("Element not found");
  return 0;
}</pre>
```

Test Cases:

• Input: $30 \rightarrow \text{Output}$: Index 2

Result

The program locates an element in the array.