S.No: 15	Exp. Name: ***Linear search***	Date:2025-10-18

Aim:

Write a C program to check whether the given element is present or not in the array of elements using linear search.

Input Format:

- The first line contains an integer n, representing the size of the array.
- The second line contains n space-separated integers, representing the elements of the array.
- The third line contains an integer key, representing the search element.

Output Format:

- If the search element is found, the program displays the message **"**Found at position <pos>**"**, where pos is the position of the element in the array (0-indexed).
- If the search element is not found, the program displays the message **"**<key> is not found**"**, where key is the search element.

Note:

- Add new line char (\n) at the end of the output.
- Refer to the visible test cases to strictly match with input/output layout.

Source Code:

SearchEle.c

```
// Type Content here...
#include <stdio.h>
int main(){
   int n;
   printf("Enter size: ");
   scanf("%d", &n);
   int arr[n];
   printf("Enter %d element: ", n);
   for(int i = 0; i<n; i++)
      scanf("%d", &arr[i]);
   int k;
   printf("Enter search element: ");
   scanf("%d", &k);
   int f = 0;
   int p = -1;
   for(int i = 0; i<n; i++){
      if(arr[i]==k){
         f=1;
         p=i;
         break;
      }
   }
   if(f)
      printf("Found at position %d\n", p);
   else
      printf("%d is not found\n", k);
```

```
    return 0;
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter size: 6
Enter 6 element: 2 4 8 1 3 5
Enter search element: 6
6 is not found

Test Case - 2
User Output
Enter size: 6
Enter 6 element: 2 4 8 1 3 5
Enter search element: 2
Found at position 0

Test Case - 3
User Output
Enter size: 6
Enter 6 element: 2 4 8 1 3 5
Enter search element: 9
9 is not found