

```
1: //Searching in a Array
2:
3: #include<stdio.h>
4:
5: struct Array
6: {
7:     int A[10];
8:     int size;
9:     int length;
10: };
11:
12: void Display(struct Array arr)
13: {
14:     int i;
15:     printf("\nElements are\n");
16:     for(i=0;i<arr.length;i++)
17:         printf("%d ",arr.A[i]);
18: }
19:
20: void swap(int *x,int *y)
21: {
22:     int temp=*x;
23:     *x=*y;
24:     *y=temp;
25: }
26:
27: int LinearSearch(struct Array *arr,int key)
28: {
29:     int i;
30:     for(i=0;i<arr->length;i++)
31:     {
32:         if(key==arr->A[i])
33:         {
34:             swap(&arr->A[i],&arr->A[0]);
35:             return i;
36:         }
37:     }
38:     return -1;
39: }
```

```
40:
41: int main()
42: {
43:     struct Array arr1={{2,23,14,5,6,9,8,12},10,8};
44:     printf("%d",LinearSearch(&arr1,14));
45:     Display(arr1);
46:     return 0;
47: }
```