

## Program

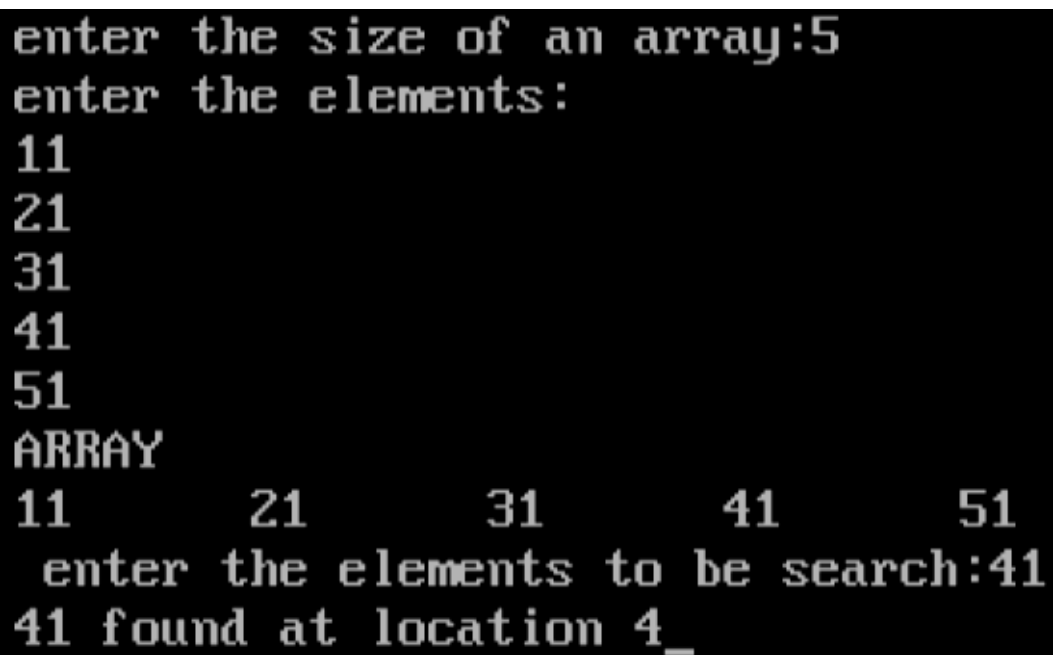
```
#include<stdio.h>

#include<conio.h>

Void main()
{
    int a[15],i,j=1,n,val,pos=-1;
    clrscr();
    printf("enter the size of an array:");
    scanf("%d",&n);
    printf("enter the elements:\n");
    for(i=1;i<=n;i++)
    {
        scanf("%d",&a[i]);
    }
    printf("ARRAY\n");
    for(i=1;i<=n;i++)
    {
        printf("%d\t",a[i]);
    }
    printf("\n enter the elements to be search:");
    scanf("%d",&val);
    while(j<=n)
    {
        if(a[j]==val)
        {
```

```
    pos=j;
    printf("%d found at location %d",val,pos);
}
j=j+1;
}
if(pos==-1)
printf("value is not present in the array");
getch();
}
```

Output



```
enter the size of an array:5
enter the elements:
11
21
31
41
51
ARRAY
11      21      31      41      51
  enter the elements to be search:41
41 found at location 4_
```

## Program

```
#include<stdio.h>

#include<conio.h>

void main()
{
    int a[20],i,item,n,beg,end,pos=-1,mid;
    clrscr();
    printf("enter limit of the array:");
    scanf("%d",&n);
    printf("enter elements(sorted array):");
    for(i=1;i<=n;i++)
    {
        scanf("%d",&a[i]);
    }
    printf("\nARRAY\n");
    for(i=1;i<=n;i++)
    {
        printf("%d\t",a[i]);
    }
    printf("\n enter the elements to be search:");
    scanf("%d",&item);
    beg=1;
    end=n;
    pos=-1;
    while(beg<=end)
```

```
{
    mid=(beg+end)/2;
    if(a[mid]==item)
    {
        pos=mid;
        printf("%d found at %d",item,pos);
        break;
    }
    else
    {
        if(a[mid]>item)
            end=mid-1;
        else
            beg=mid+1;
    }
}
if(pos==-1)
    printf("value is not present in the array");
getch();
}
```

## Output

```
enter limit of the array:5
enter elements(sorted array):11
21
31
41
51

ARRAY
11      21      31      41      51
  enter the elements to be search:21
21 found at 2
```

## Program

```
#include<stdio.h>
#include<conio.h>
void main()
{
    int a[20],i,n,j,temp;
    clrscr();
    printf("enter the limit of the array:");
    scanf("%d",&n);
    printf("enter elements:");
    for(i=1;i<=n;i++)
    {
        scanf("%d",&a[i]);
    }
    printf("\n ARRAY before sorting\n");
    for(i=1;i<=n;i++)
    {

        printf("%d\t",a[i]);
    }
    for(j=1;j<=n;j++)
    {
```

```
for(i=1;i<=n-j;i++)
{
    if(a[i]>a[i+1])
    {
        temp=a[i];
        a[i]=a[i+1];
        a[i+1]=temp;
    }
}
}
printf("\n ARRAY after sorting\n");
for(i=1;i<=n;i++)
{
    printf("%d\t",a[i]);
}
getch();
}
```

## Output

```
enter the limit of the array:5  
enter elements:7
```

```
0
```

```
-4
```

```
2
```

```
9
```

```
    ARRAY before sorting
```

```
7      0      -4      2      9
```

```
    ARRAY after sorting
```

```
-4      0      2      7      9
```







