```
#include<stdio.h>
#include<conio.h>
void main()
{
int n,a[30],i,res,ch,val,item;
clrscr();
printf("\n1.Linear search\n2.Binary search\n3.Exit\n");
printf("Enter your choice");
scanf("%d",&ch);
switch(ch)
{
case 1: printf("Enter the size of Aray");
scanf("%d",&n);
printf("Enter the array element\n");
for(i=0;i<n;i++)
scanf("%d",&a[i]);
printf("Enter the key element to be searched\n");
scanf("%d",&val);
res=linearsearch(a,n,val);
if(res==-1)
printf("element no found\n");
else
printf("element found at position=%d\n",res);
break;
case 2: printf("Enter the size of sn array\n");
scanf("%d",&n);
printf("Enter the elements in sorted format\n");
for(i=0;i<n;i++)
scanf("%d",&a[i]);
printf("Enter the key element to be searched\n");
scanf("%d",&val);
res=binarysearch(val,a,0,n-1);
if(res==-1)
printf("element not found\n");
else
printf("element found at position=%d\n",res);
break;
case 3: exit(0);
break;
default:printf("invalid choice\n");
}
getch();
}
int linearsearch(int a[],int n,int val)
{
int i;
for(i=0;i<n;i++)
{
if(a[i]==val)
return i+1;
}
return -1;
}
int binarysearch(int val,int a[],int l,int h)
```

```
{
int mid;
if(l>h)
return -1;
mid=(l+h)/2;
if(val==a[mid])
return mid+1;
if(val<a[mid])
{
return binarysearch(val,a,l,mid-1);
}
else
{
return binarysearch(val,a,mid+1,h);
}
}
```