[1]Linear Search

#include <stdio.h>

#include <conio.h>

#define size 5

void linear(int arr[],int);

void main()

{

int i,a[size],n;

clrscr();

for(i=0;i<size;i++)

{

printf("\n\t a[%d] :=",i);

scanf("%d",&a[i]);

}

printf("\n\t Enter the want to find = ");

scanf("%d",&n);

linear(a,n);

getch();

}

void linear(int arr[],int key)

{

int i=0,found=0;

for(i=0;i<size;i++)

{

if(arr[i]==key)

{

found=i;

printf("\n Search is sucess");

printf("\n key is position:%d",i+1);

}

}

if(found==0)

{

printf("\n search element exit the list");

}

}

[2]Binary Search

#include <stdio.h>

#include <conio.h>

#define size 5

void binary(int[],int key);

void main()

{

int i,a[size],t,j,n;

int flag=0;

clrscr();

for(i=0;i<size;i++)

{

printf("\n Enter values");

scanf("%d",&a[i]);

}

for(i=0;i<size;i++)

{

for(j=i+1;j<size;j++)

{

if(a[i]>a[j])

{

t=a[i];

a[i]=a[j];

a[j]=t;

}

}

}

printf("\n\t before Sorting");

for(i=0;i<size;i++)

{

printf("\n\t%d",a[i]);

}

printf("\n Enter Values for search:");

scanf("%d",&n);

binary(a,n);

getch();

}

void binary(int arr[],int n)

{

int high=0,mid=0,low=0,flag=0;

high=size-1;

mid=(low+high)/2;

while(high>=low && flag!=1)

{

if(n<arr[mid])

high=mid-1;

else if(n>arr[mid])

low=mid+1;

else if(n==arr[mid])

{

printf("\n search is sucessful");

printf("\n found at %d location ",mid+1);

flag=1;

}

mid=(high+low)/2;

}

if(flag==0)

{

printf("\n search is un-sucessful");

}

}