**1) Linear Search:**

#include<stdio.h>

void main ()

{

int a[10] = {10, 23, 40, 1, 2, 0, 14, 13, 50, 9};

int item, i,flag;

clrscr();

printf("\nEnter Item which is to be searched\n");

scanf("%d",&item);

for (i = 0; i< 10; i++)

{

if(a[i] == item)

{

flag = i+1;

break;

}

else

flag = 0;

}

if(flag != 0)

{

printf("\nItem found at location %d\n",flag);

}

else

{

printf("\nItem not found\n");

}

getch();

}

**2) Binary Search**

#include <stdio.h>

#include<conio.h>

void binary\_search();

int a[50], n, item, loc, beg, mid, end, i;

void main()

{

clrscr();

printf("\nEnter size of an array: ");

scanf("%d", &n);

printf("\nEnter elements of an array in sorted form:\n");

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

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

printf("\nEnter ITEM to be searched: ");

scanf("%d", &item);

binary\_search();

getch();

}

void binary\_search()

{

beg = 0;

end = n-1;

mid = (beg + end) / 2;

while ((beg<=end) && (a[mid]!=item))

{

if (item < a[mid])

end = mid - 1;

else

beg = mid + 1;

mid = (beg + end) / 2;

}

if (a[mid] == item)

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

else

printf("\n\nITEM doesn't exist");

}