**/\* C++ Program - Linear Search \*/**

#include<iostream.h>

#include<conio.h>

void main()

{

clrscr();

int arr[10], i, num, n, c=0, pos;

cout<<"Enter the array size : ";

cin>>n;

cout<<"Enter Array Elements : ";

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

{

cin>>arr[i];

}

cout<<"Enter the number to be search : ";

cin>>num;

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

{

if(arr[i]==num)

{

c=1;

pos=i+1;

break;

}

}

if(c==0)

{

cout<<"Number not found..!!";

}

else

{

cout<<num<<" found at position "<<pos;

}

getch();

}

**/\* C++ Program - Binary Search \*/**

#include<iostream.h>

#include<conio.h>

void main()

{

clrscr();

int n, i, arr[50], search, first, last, middle;

cout<<"Enter total number of elements :";

cin>>n;

cout<<"Enter "<<n<<" number :";

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

{

cin>>arr[i];

}

cout<<"Enter a number to find :";

cin>>search;

first = 0;

last = n-1;

middle = (first+last)/2;

while (first <= last)

{

if(arr[middle] < search)

{

first = middle + 1;

}

else if(arr[middle] == search)

{

cout<<search<<" found at location "<<middle+1<<"\n";

break;

}

else

{

last = middle - 1;

}

middle = (first + last)/2;

}

if(first > last)

{

cout<<"Not found! "<<search<<" is not present in the list.";

}

getch();

}

**/\* C++ Program - Bubble Sort \*/**

#include<iostream.h>

#include<conio.h>

void main()

{

clrscr();

int n, i, arr[50], j, temp;

cout<<"Enter total number of elements :";

cin>>n;

cout<<"Enter "<<n<<" numbers :";

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

{

cin>>arr[i];

}

cout<<"Sorting array using bubble sort technique...\n";

for(i=0; i<(n-1); i++)

{

for(j=0; j<(n-i-1); j++)

{

if(arr[j]>arr[j+1])

{

temp=arr[j];

arr[j]=arr[j+1];

arr[j+1]=temp;

}

}

}

cout<<"Elements sorted successfully..!!\n";

cout<<"Sorted list in ascending order :\n";

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

{

cout<<arr[i]<<" ";

}

getch();

}

**/\* C++ Program - Selection Sort \*/**

#include<iostream.h>

#include<conio.h>

void main()

{

clrscr();

int size, arr[50], i, j, temp;

cout<<"Enter Array Size : ";

cin>>size;

cout<<"Enter Array Elements : ";

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

{

cin>>arr[i];

}

cout<<"Sorting array using selection sort...\n";

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

{

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

{

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

{

temp=arr[i];

arr[i]=arr[j];

arr[j]=temp;

}

}

}

cout<<"Now the Array after sorting is :\n";

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

{

cout<<arr[i]<<" ";

}

getch();

}