

// Program No.2
/* Aim : Write a Program in C++ To search a number using Binary
Search*/

```
#include<iostream.h>
#include<conio.h>
Int bsearch(int a[],int n);
void main()
{
clrscr();
int a[10],i,k,n,loc;
cout<<"Enter 10 no's in ascending order:-";
for(i=0;i<10;i++)
    {cin>>a[i];
    }
cout<<"original no's are:-"<<endl;
for(i=0;i<10;i++)
    {cout<<a[i]<<endl;
    }
cout<<"Enter no. you want to search:-";
cin>>n;
loc = bsearch(a,n);
if(loc==0)
    {cout<<"Number not found";
    }else
    {cout<<"The location of the no. is:-"<<loc;
    }
getch();
}
int bsearch(int a[10],int n)
    {int mid,lb,ub;
    lb=0;
    ub=9;
    while(ub>=lb)
        {mid=int((ub+lb)/2);
        if(a[mid]==n)
            {return(mid+1);
            }
        if(a[mid]>n)
            {ub=mid-1;
            }else
            {lb=mid+1;
            }
    }
    return(0);
}
```