AIM : Write a C++ program for Binary Search.

CODING :

```
#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();
}
```

OUTPUT :