

## **BINARY SEARCH PROGRAM ADA**

**PROGRAM:-**

```
#include <stdio.h>
#include <conio.h>
int main()
{
    int c, first, last, middle, n, search, array[100];

    printf("Enter number of elements\n");
    scanf("%d", &n);

    printf("Enter %d integers\n", n);

    for (c = 0; c < n; c++)
        scanf("%d", &array[c]);

    printf("Enter value to find\n");
    scanf("%d", &search);

    first = 0;
    last = n - 1;
    middle = (first+last)/2;

    while (first <= last) {
        if (array[middle] < search)
            first = middle + 1;
        else if (array[middle] == search) {
            printf("%d found at location %d.\n", search, middle+1);
            break;
        }
        else
            last = middle - 1;
    }
```

```
    }  
    else  
        last = middle - 1;  
  
    middle = (first + last)/2;  
}  
if (first > last)  
    printf("Not found! %d isn't present in the list.\n", search);  
  
return 0;  
}
```

EXECUTION(OUTPUT):-

```
Enter number of elements  
5  
Enter 5 integers  
10 20 30 40 50  
Enter value to find  
40  
40 found at location 4.
```