

```

1  //C program to Demonstrate binary search
2  #include<stdio.h>
3  #include<conio.h>
4
5  void main()
6  {
7      int first, last, middle, size, i, sElement, list[100];
8      //clrscr();
9
10     printf("Enter the size of the list: ");
11     scanf("%d",&size);
12
13     printf("Enter %d integer values in ascending order\n", size);
14
15     for (i = 0; i < size; i++)
16         scanf("%d",&list[i]);
17
18     while(1)
19     {
20         for (i = 0; i < size; i++)
21             printf("  %d",list[i]);
22
23         // Binary search logic
24
25         printf("\nEnter value to be search: ");
26         scanf("%d", &sElement);
27
28         first = 0;
29         last = size - 1;
30         middle = (first+last)/2;
31
32         while (first <= last) {
33             if (list[middle] < sElement)
34                 first = middle + 1;
35             else if (list[middle] == sElement) {
36                 printf("Element found at index %d.\n",middle);
37                 break;
38             }
39             else
40                 last = middle - 1;
41
42             middle = (first + last)/2;
43         }
44         if (first > last)
45             printf("Element Not found in the list.");
46
47     }
48     getch();
49 }

```