

9. BINARY SEARCH METHOD :-

Code:-

```
#include <stdio.h>

int main()
{
    int i, low, high, mid, n, key, array[100];
    printf("Enter number of elements");
    scanf("%d",&n);
    printf("Enter %d integers", n);
    for(i = 0; i < n; i++)
        scanf("%d",&array[i]);
    printf("Enter value to find");
    scanf("%d", &key);
    low = 0;
    high = n - 1;
    mid = (low+high)/2;
    while (low <= high) {
        if(array[mid] < key)
            low = mid + 1;
        else if (array[mid] == key) {
            printf("%d found at location %d.n", key, mid+1);
            break;
        }
        else
            high = mid - 1;
        mid = (low + high)/2;
    }
    if(low > high)
        printf("Not found! %d isn't present in the list.n", key);
    return 0;
}
```

OUTPUT:-

```
Enter number of elements8
Enter 8 integers
4
7
8
9
5
6
12
15
Enter value to find8
8 found at location 3.n
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Process exited after 20.22 seconds with return value 0
Press any key to continue . . . ■
```

}