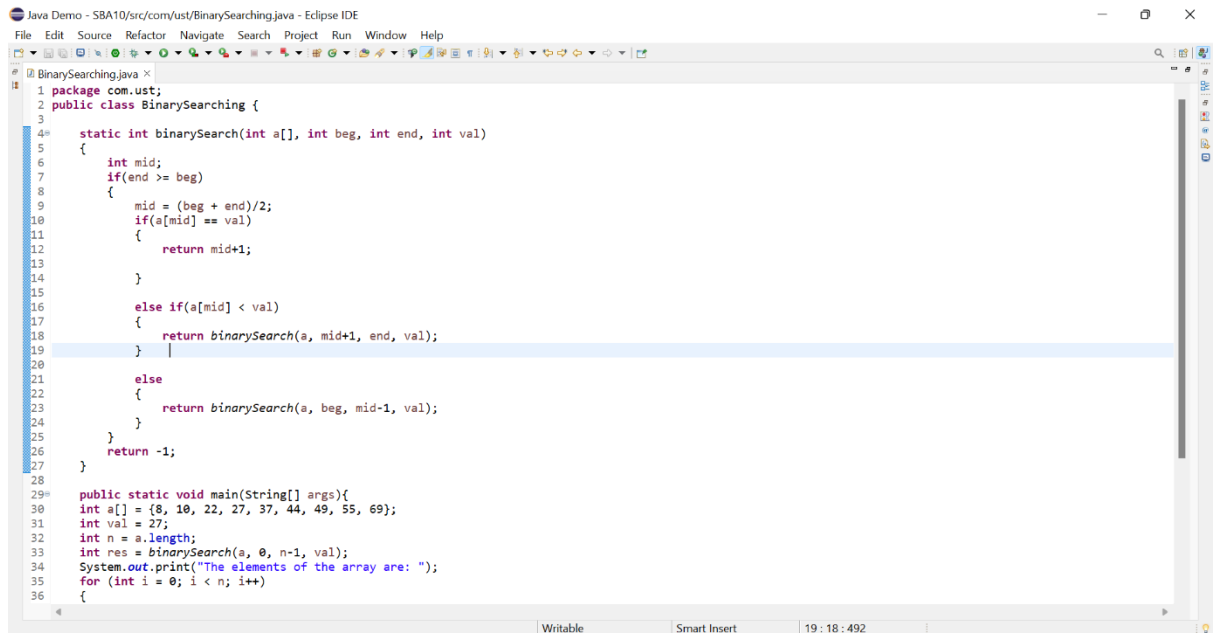
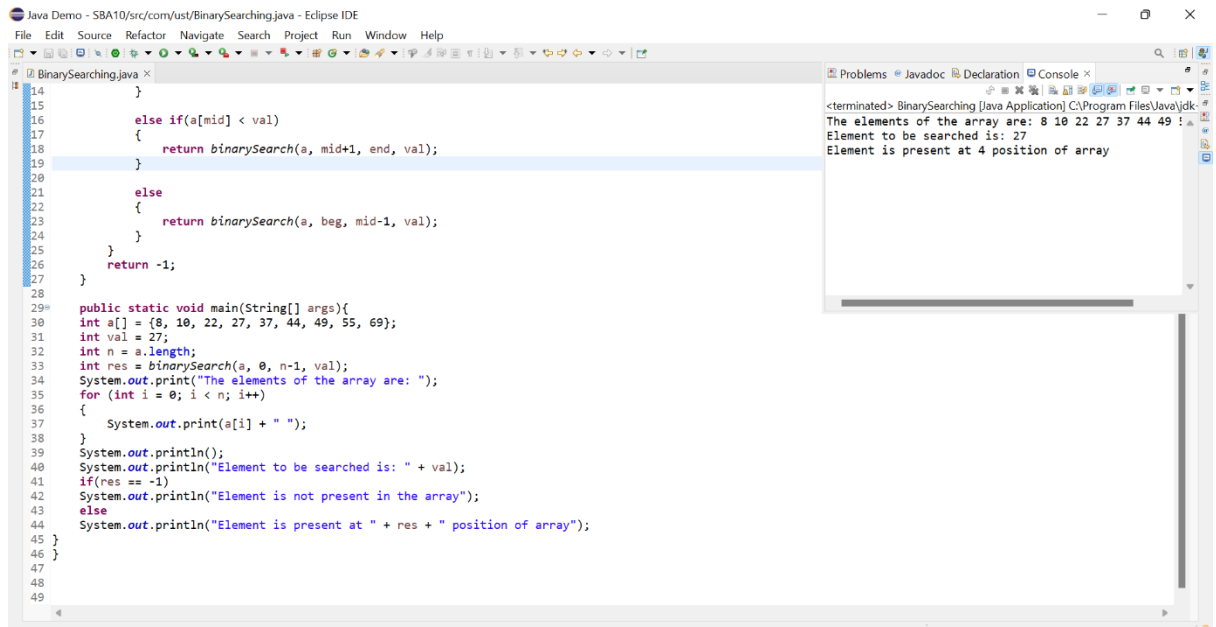


SBA-10

1. Write a Binary search program to search the elements of the integer Array.



```
1 package com.ust;
2 public class BinarySearching {
3
4     static int binarySearch(int a[], int beg, int end, int val)
5     {
6         int mid;
7         if(end >= beg)
8         {
9             mid = (beg + end)/2;
10            if(a[mid] == val)
11            {
12                return mid+1;
13            }
14        }
15        else if(a[mid] < val)
16        {
17            return binarySearch(a, mid+1, end, val);
18        }
19        else
20        {
21            return binarySearch(a, beg, mid-1, val);
22        }
23    }
24    return -1;
25 }
26
27 public static void main(String[] args){
28     int a[] = {8, 10, 22, 27, 37, 44, 49, 55, 69};
29     int val = 27;
30     int n = a.length;
31     int res = binarySearch(a, 0, n-1, val);
32     System.out.print("The elements of the array are: ");
33     for (int i = 0; i < n; i++)
34     {
35     }
```



```
36     {
37         System.out.print(a[i] + " ");
38     }
39     System.out.println();
40     System.out.println("Element to be searched is: " + val);
41     if(res == -1)
42     System.out.println("Element is not present in the array");
43     else
44     System.out.println("Element is present at " + res + " position of array");
45 }
46 }
47
48
49 }
```

Console Output:

```
<terminated> BinarySearching [Java Application] C:\Program Files\Java\jdk-
The elements of the array are: 8 10 22 27 37 44 49 55 69
Element to be searched is: 27
Element is present at 4 position of array
```