

```
import java.lang.*;
import java.util.Scanner;
class ArrayBinary {
    static void BubbleSort(int A[])
    {
        int temp = 0;
        for (int i = 0; i < A.length; i++)
        {
            for (int j = i + 1; j < A.length; j++)
            {
                if (A[i] > A[j])
                {
                    temp = A[i];
                    A[i] = A[j];
                    A[j] = temp;
                }
            }
        }
    }
}
```

```
static int BinarySearch(int A[], int left, int right, int key)
{
    int mid;
    while (left <= right)
    {
        mid = (left + right) / 2;

        if (A[mid] == key)
        {
            return mid;
        }

        else if (A[mid] > key)
        {
            right = mid - 1;
        }
    }
}
```

```
        else
        {
            left = mid + 1;
        }
    }
    return -1;
}
```

```
public static void main(String[] args)
{
```

```
    int A[] = new int[6];
    Scanner sc = new Scanner(System.in);
```

```
    System.out.print("Enter the Array Elements: ");
    for (int k = 0; k < A.length; k++)
    {
        A[k] = sc.nextInt();
    }
```

```
    System.out.println("Array Before Sorting:");
    for (int k = 0; k < A.length; k++)
    {
        System.out.print(A[k] + "\t");
    }
    System.out.println();
```

```
    BubbleSort(A);
```

```
    System.out.println("Array After Sorting:");
    for (int k = 0; k < A.length; k++)
    {
        System.out.print(A[k] + "\t");
    }
    System.out.println();
```

```
    System.out.print("Enter the element to search: ");
    int key = sc.nextInt();
```

```
int result = BinarySearch(A, 0, A.length - 1, key);

if (result == -1)
{
    System.out.println("Element is not found.");
}
else
{
    System.out.println("Element is found at index: " + result);
}

sc.close();
}
}
```