

1. Writing a program in Java implementing the linear search algorithm

```
package javafsd4;
```


```
public class linearSearch {  
    public static int find(int[] arr, int search) {  
        for(int i=0;i<arr.length;i++)  
            if(arr[i]==search)  
                return i;  
        return -1;  
    }  
}
```

```
package javafsd4;
```

```
import java.util.Scanner;
```

```
public class LS_Main {  
  
    public static void main(String[] args) {  
        // TODO Auto-generated method stub  
        int[] arr= {2,5,4,9,6,1,10};  
        Scanner sc = new Scanner(System.in);  
        System.out.println("Enter the element to be searched");  
        int search = sc.nextInt();  
  
        int result=linearSearch.find(arr, search);  
        if(result==-1){  
            System.out.println("Element not Found");  
        } else {  
            System.out.println("Element found at index of "+result+" and the search  
element is "+arr[result]);  
        }  
  
    }  
}
```

OUTPUT

 Console ×

<terminated> LS_Main [Java Application] C:\Users\JOTHIKA\p2\pool\plugins\org.eclipse.justj.oper

Enter the element to be searched

1

Element found at index of 5 and the search element is 1