**WRITE A PROGRAM IN JAVA IMPLEMENTING THE LINEAR SEARCH ALGORITHM**

package searching;

import java.util.InputMismatchException;

import java.util.Scanner;

public class LinearSearch {

public int linearSearch(int arr[], int key) {

for(int i=0; i<arr.length; i++) {

if(arr[i] == key) {

return i;

}

}

return -1;

}

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

LinearSearch obj = new LinearSearch();

try {

System.out.println("Enter the size of array: ");

int size = sc.nextInt();

int arr[] = new int[size];

System.out.println("Enter the array elements: ");

for(int i=0; i<size; i++) {

arr[i] = sc.nextInt();

}

System.out.println("Enter the value to be searched: ");

int key = sc.nextInt();

int index = obj.linearSearch(arr, key);

if(index == -1) {

System.out.println(key+" is not found");

}

else {

System.out.println(key+" is found at index "+index);

}

} catch (InputMismatchException e) {

System.out.println("Invalid input");

}

sc.close();

}

}