**DAY 6**

package java1;  
import java.util.Scanner;  
  
public class Java {  
  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.in);  
 int n = sc.nextInt();  
 int[] arr = new int[n];  
 for (int i = 0; i < n; i++) {  
 arr[i] = sc.nextInt();  
 }  
 int count = 0;  
 int candidate = 0;  
 for (int i = 0; i < n; i++) {  
 if (count == 0) {  
 candidate = arr[i];  
 count = 1;  
 } else {  
 if (arr[i] == candidate) {  
 count++;  
 } else {  
 count--;  
 }  
 }  
 }  
  
 System.out.println(candidate);  
 }  
  
}

2)

PROGRAM:  
package java1;  
import java.util.Scanner;  
  
public class Java {  
  
 public static void main(String[] args) {  
Scanner sc = new Scanner(System.in);  
 int n = sc.nextInt();  
 int[] nums = new int[n];  
 for (int i = 0; i < n; i++) {  
 nums[i] = sc.nextInt();  
 }  
 int maxSum = nums[0];  
 int currentSum = nums[0];  
  
 for (int i = 1; i < n; i++) {  
 currentSum = Math.max(nums[i], currentSum + nums[i]);  
 maxSum = Math.max(maxSum, currentSum);  
 }  
  
 System.out.println(maxSum);  
 }  
  
}

3)

PROGRAM:  
package java1;  
import java.util.Scanner;  
  
public class Java {  
  
 public static void main(String[] args) {  
Scanner sc = new Scanner(System.in);  
 String s = sc.nextLine().toLowerCase();   
 int[] freq = new int[26];  
 for (int i = 0; i < s.length(); i++) {  
 freq[s.charAt(i) - 'a']++;  
 }  
 for (int i = 0; i < s.length(); i++) {  
 if (freq[s.charAt(i) - 'a'] == 1) {  
 System.out.println(i);  
 return;  
 }  
 }  
 System.out.println(-1);  
 }  
  
}

4)

package java1;  
import java.util.Scanner;  
  
public class Java {  
  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.in);  
 String s1 = sc.nextLine();  
 String s2 = sc.nextLine();  
 if (s1.length() != s2.length()) {  
 System.out.println(false);  
 } else {  
 String combined = s1 + s1;  
 System.out.println(combined.contains(s2));  
 }  
 }  
  
}