Happy Coding from necse



Time Left: 00:10:58

Count Set Bits - All Positions

The program must accept an array of **N** integers as the input. The program must find the binary representation of each integer in the array. For each position from the **LSB**, the program must print the number of set bits occur in the N integers as the output.

Boundary Condition(s):

2 <= N <= 100

1 <= Each integer value <= 10^8

Input Format:

The first line contains N.

The second line contains N integer values separated by a space.

Output Format:

The first line contains the number of set bits occur in the N integers.

Example Input/Output 1:

Input:

- '

10 12 9 7 11

Output:

3324

Explanation:

1010 -> 10

1100 -> **12**

1001 -> 9

0**111** -> **7**

1011 -> 11

1st position from LSB, the set bits occur in 9, 7 and 11.

2nd position from LSB, the set bits occur in 10, 7 and 11.

 $\mathbf{3^{rd}}$ position from LSB, the set bits occur in $\mathbf{12}$ and $\mathbf{7}.$

 $\mathbf{4^{th}}$ position from LSB, the set bits occur in $\mathbf{10}$, $\mathbf{12}$, $\mathbf{9}$ and $\mathbf{11}$.

Example Input/Output 2:

Input:

2 15 33

Output: 2 1 1 1 0 1

Max Execution Time Limit: 50 millisecs

Ambiance

Java (12.0)

```
1 v import java.util.*;
 2 v public class Hello {
 3
 4 ,
         public static void main(String[] args) {
 5
 6
             Scanner sc = new Scanner(System.in);
 7
 8
             int n = sc.nextInt();
 9
             String s[] = new String[n];
10
11
             int res[] = new int[1000];
12
             int max=0;
13
14
             for(int i=0;i<n;i++){</pre>
15
                  s[i] = new StringBuilder(Integer.toBinaryString(sc.nextInt
                      ())).reverse().toString();
16
             }
17
18 •
             for(String i:s){
19
                  char ss[] = i.toCharArray();
                  max = Math.max(max,ss.length);
20
                  for(int j=0;j<ss.length;j++){</pre>
21
22
                      if(ss[j]=='1') res[j]++;
23
                  }
24
25
             }
26
             for(int i=0;i<max;i++){</pre>
27 •
                  System.out.print(res[i]+" ");
28
29
             }
30
31
32
         }
33
1912067@nec
```

