# A. Soal Medium

1. Java Priority Queue

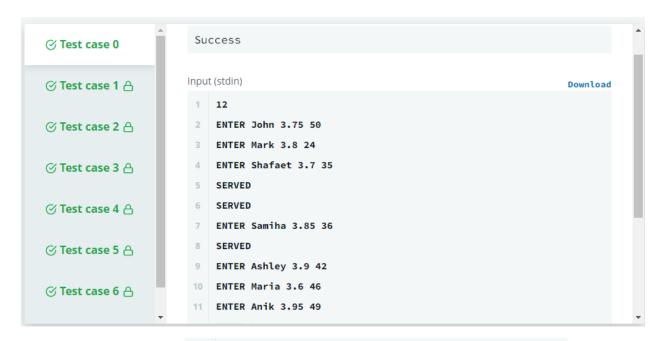
Link: https://www.hackerrank.com/challenges/java-priority-queue/problem

Accepted Answer:

```
Language: Java 8
8 /*
9 * Create the Student and Priorities classes here.
   */
10
11 class Student {
12
13
       private int id;
14
       private String name;
       private double cgpa;
15
16
       public Student(int id, String name, double cgpa) {
17
           this.id = id;
18
19
           this.name = name;
20
           this.cgpa = cgpa;
21
       }
22
23
       public int getID() {
           return id;
24
25
       }
26
27
       public String getName() {
28
           return name;
29
30
       public double getCGPA() {
31
32
           return cgpa;
33
34 }
```

```
36 class Priorities {
37
       public List<Student> getStudents(List<String> events) {
38
39
            PriorityQueue<Student> queue = new PriorityQueue<Student>(
40
41
                    Comparator.comparing(Student::getCGPA).reversed()
42
                             .thenComparing(Student::getName)
43
                             .thenComparing(Student::getID)
44
            );
45
46
            List<Student> students = new ArrayList<Student>();
47
            for (String evt : events) {
48
                String[] data = evt.split(" ");
49
                if (data[0].startsWith("ENTER")) {
50
51
                    int id = Integer.parseInt(data[3]);
                    String name = data[1];
52
                    double cgpa = Double.parseDouble(data[2]);
53
54
55
                    Student student = new Student(id, name, cgpa);
56
                    queue.add(student);
57
               } else if (data[0].startsWith("SERVED")) {
58
59
                    Student firstIn = queue.poll();
60
               }
61
           Student firstIn = queue.poll();
62
63
64
           if (firstIn == null) {
               return students;
65
           } else {
66
               while (!queue.isEmpty() || firstIn != null) {
67
                    students.add(firstIn);
68
                   firstIn = queue.poll();
69
70
71
           }
72
73
           return students;
74
       }
75 }
```

76



12 ENTER Dan 3.95 50
13 SERVED

# **Expected Output**

Dan
Ashley
Shafaet
Maria

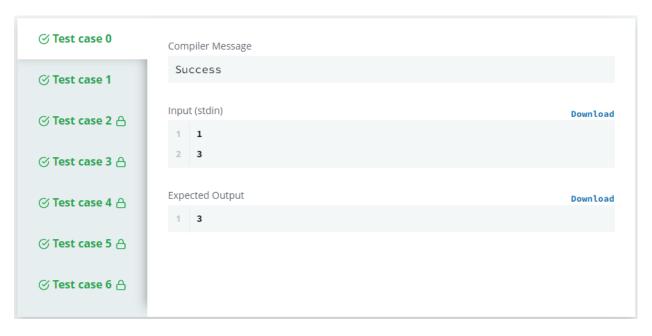
# **B. Soal Easy**

#### 1. Java Static Initializer Block

**Link:** https://www.hackerrank.com/challenges/java-static-initializer-block/problem Q: If both values are greater than zero, then the *main* method must output the area of the *parallelogram*. Otherwise, print *"java.lang.Exception: Breadth and height must be positive"* without quotes.

Accepted Answer:

```
Language: Java 7
12 //Write your code here
13
       static int B, H;
       static boolean flag=true;
14
15
       static {
16
           Scanner sc=new Scanner(System.in);
17
           B = sc.nextInt();
           H = sc.nextInt();
18
           if (B<=0 || H<=0){
19
20
               System.out.print("java.lang.Exception: Breadth and height must be positive");
21
               flag = false;
22
               System.exit(0);
23
           } else {
               flag = true;
24
25
26
       }
```



# 2. Java Int to String

**Link:** <a href="https://www.hackerrank.com/challenges/java-int-to-string/problem">https://www.hackerrank.com/challenges/java-int-to-string/problem</a>

Q: You are given an integer n, you have to convert it into a string. Please complete the partially completed code in the editor. If your code successfully converts n into a string s the code will print "Good job". Otherwise it will print "Wrong answer".

#### Accepted Answer:

```
Language: Java 7

13
14
15    //Write your code here
16    String s = String.valueOf(n).trim();
17
```



#### 3. Java Date and Time

**Link:** https://www.hackerrank.com/challenges/java-date-and-time/problem

Q: You are given a date. You just need to write the method, getDay() which returns the *day* on that date. To simplify your task, we have provided a portion of the code in the editor.

Accepted Answer:

```
Language: Java 7
25
       public static String findDay(int month, int day, int year) {
            String theDay = "";
26
27
             if (month == 1)
28
            {
29
                month = 13;
30
                year--;
31
            }
32
            if (month == 2)
33
34
                month = 14;
35
                year--;
36
```

```
37
           int q = day;
           int m = month;
38
           int k = year % 100;
39
40
           int j = year / 100;
           int h = q + 13*(m + 1) / 5 + k + k / 4 + j / 4 + 5 * j;
41
           h = h \% 7;
42
           switch (h)
43
44
45
               case 0 : theDay = "Saturday"; break;
               case 1 : theDay = "Sunday"; break;
46
               case 2 : theDay = "Monday"; break;
47
               case 3 : theDay = "Tuesday"; break;
48
               case 4 : theDay = "Wednesday"; break;
49
               case 5 : theDay = "Thursday"; break;
50
51
               case 6 : theDay = "Friday"; break;
52
53
           return theDay.toUpperCase();
       }
54
55
56 }
```

#### 4. Java Currency Formatter

**Link:** <a href="https://www.hackerrank.com/challenges/java-currency-formatter/">https://www.hackerrank.com/challenges/java-currency-formatter/</a>

Q: Given a <u>double-precision</u> number, payment, denoting an amount of money, use the <u>NumberFormat</u> class' <u>getCurrencyInstance</u> method to convert payment into the US, Indian, Chinese, and French currency formats.

Accepted Answer:

```
Language: Java 8
          double payment = scanner.nextDouble();
П
          scanner.close();
12
13
14
          // Write your code here.
15
          NumberFormat us = NumberFormat.getCurrencyInstance(Locale.US);
16
          NumberFormat india = NumberFormat.getCurrencyInstance(new Locale("en", "IN"));
17
          NumberFormat china = NumberFormat.getCurrencyInstance(Locale.CHINA);
18
          NumberFormat france = NumberFormat.getCurrencyInstance(Locale.FRANCE);
19
20
          System.out.println("US: " + us.format(payment));
21
          System.out.println("India: " + india.format(payment));
          System.out.println("China: " + china.format(payment));
22
23
          System.out.println("France: " + france.format(payment));
24
25 }
26
Compiler Message
                      Success
 Input (stdin)
                                                                            Download
 12324.134

    ✓ Test case 3 
    △

                     Expected Output
                                                                            Download
                      1 US: $12,324.13
 2 India: Rs.12,324.13
                      3 China: ¥12,324.13
 4 France: 12 324,13 €
```

#### 5. Java Valid Username Checker

**Link:** https://www.hackerrank.com/challenges/valid-username-checker/problem Q:

Problem Submissions Leaderboard Discussions Editorial

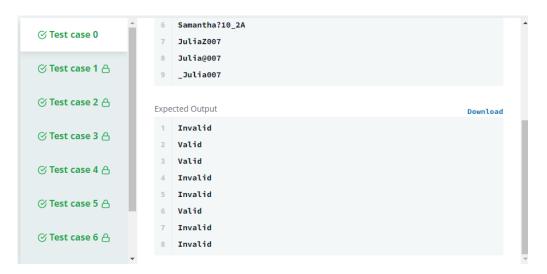
You are updating the username policy on your company's internal networking platform. According to the policy, a username is considered valid if all the following constraints are satisfied:

- The username consists of 8 to 30 characters inclusive. If the username consists of less than 8 or greater than 30 characters, then it is an invalid username.
- The username can only contain alphanumeric characters and underscores (\_). Alphanumeric characters describe the character set consisting of lowercase characters [a-z], uppercase characters [A-Z], and digits [0-9].
- The first character of the username must be an alphabetic character, i.e., either lowercase character [a-z] or uppercase character [A-Z].

Accepted Answer:

```
Language: Java 8

2
3  class UsernameValidator {
    /*
    * Write regular expression here.
    */
    public static final String regularExpression = "^([a-zA-Z]){1}([a-zA-Z0-9_]{7,29})$";
    8
}
```



### 6. Java Loops I

**Link:** <a href="https://www.hackerrank.com/challenges/java-loops-i/problem">https://www.hackerrank.com/challenges/java-loops-i/problem</a>

Q: Task

Given an integer, N, print its first 10 multiples. Each multiple  $N \times i$  (where  $1 \le i \le 10$ ) should be printed on a new line in the form:  $N \times i = \text{result}$ .

# **Accepted Answer:**

```
Language: Java 8
9 public class Solution {
11
12
13
       private static final Scanner scanner = new Scanner(System.in);
14
       public static void main(String[] args) {
15
16
           int N = scanner.nextInt();
           scanner.skip("(\r\n|[\n\r\u2028\u2029\u0085])?");
17
           for (int i=1; i <= 10; i++){
18
               System.out.println(N + " x " + i + " = " + (N*i));
19
20
           }
21
           scanner.close();
22
23 }
24
```

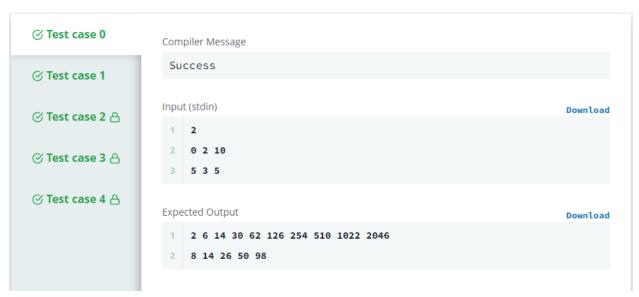
```
Input (stdin)
                                                                                              Download
⊘ Test case 0
Expected Output
                                                                                              Download
                         1 2 x 1 = 2
⊘ Test case 2 △
                        2 2 x 2 = 4
                           2 \times 3 = 6
                            2 \times 4 = 8
                           2 x 5 = 10
                            2 \times 6 = 12
                            2 \times 7 = 14
                         8 2 x 8 = 16
                            2 \times 9 = 18
                        10 2 x 10 = 20
```

# 7. Java Loops II

Link: https://www.hackerrank.com/challenges/java-loops/problem

Accepted Answer:

```
Language: Java 8
           Tor(int 1=0;1<t;1++){
II
12
                a = in.nextInt();
13
                b = in.nextInt();
                n = in.nextInt();
14
15
16
                int res = 0;
                for (int x=0;x<n;x++){
17
                        res = res + (int) Math.pow(2,x)*b;
18
                        System.out.print(a + res + " ");
19
20
                }
21
                System.out.println();
22
23
           in.close();
24
       }
25 }
26
```



#### 8. Java Data Types

Link: <a href="https://www.hackerrank.com/challenges/java-datatypes/problem">https://www.hackerrank.com/challenges/java-datatypes/problem</a>

**Accepted Answer:** 

```
Language: Java 8
14
15
                {
                    long x=sc.nextLong();
16
                    System.out.println(x+" can be fitted in:");
17
18
                    if(x>=-128 && x<=127)System.out.println("* byte");</pre>
                    //Complete the code
19
                    if(x>=-32768 && x<=32767)System.out.println("* short");</pre>
20
21
                    if(x>=Integer.MIN_VALUE && x<=Integer.MAX_VALUE)System.out.println("* int");</pre>
22
                    if(x>=Long.MIN_VALUE && x<=Long.MAX_VALUE)System.out.println("* long");</pre>
23
24
                catch(Exception e)
25
                    System.out.println(sc.next()+" can't be fitted anywhere.");
26
27
28
29
            }
```

```
Expected Output
                                                               Download
⊘ Test case 0
                   -150 can be fitted in:
                   * short
* int
                   * long
150000 can be fitted in:
                   * int
⊘ Test case 3 △
                   * long
                   1500000000 can be fitted in:
                   * int
                   12 -1000000000000000 can be fitted in:
                13 * long
```