

NAMA: ANDI DWI SAPUTRO

Hackerrank username: andiads06 (DAY 2)

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## A. Soal Medium

### 1. Java Priority Queue

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

Accepted Answer:

### Submitted Code

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;
15      private double cgpa;
16
17      public Student(int id, String name, double cgpa) {
18          this.id = id;
19          this.name = name;
20          this.cgpa = cgpa;
21      }
22
23      public int getID() {
24          return id;
25      }
26
27      public String getName() {
28          return name;
29      }
30
31      public double getCGPA() {
32          return cgpa;
33      }
34  }
```

```
36 class Priorities {
37
38     public List<Student> getStudents(List<String> events) {
39
40         PriorityQueue<Student> queue = new PriorityQueue<Student>(
41             Comparator.comparing(Student::getCGPA).reversed()
42                 .thenComparing(Student::getName)
43                 .thenComparing(Student::getID)
44         );
45
46         List<Student> students = new ArrayList<Student>();
47
48         for (String evt : events) {
49             String[] data = evt.split(" ");
50             if (data[0].startsWith("ENTER")) {
```

```
51                 int id = Integer.parseInt(data[3]);
52                 String name = data[1];
53                 double cgpa = Double.parseDouble(data[2]);
54
55                 Student student = new Student(id, name, cgpa);
56
57                 queue.add(student);
58             } else if (data[0].startsWith("SERVED")) {
59                 Student firstIn = queue.poll();
60             }
61         }
62         Student firstIn = queue.poll();
```

```
63
64         if (firstIn == null) {
65             return students;
66         } else {
67             while (!queue.isEmpty() || firstIn != null) {
68                 students.add(firstIn);
69                 firstIn = queue.poll();
70             }
71         }
72
73         return students;
74     }
75 }
76
```

Test case 0

Test case 1

Test case 2

Test case 3

Test case 4

Test case 5

Test case 6

Success

Input (stdin)

Download

112

2ENTER John 3.75 50

3ENTER Mark 3.8 24

4ENTER Shafaet 3.7 35

5SERVED

6SERVED

7ENTER Samiha 3.85 36

8SERVED

9ENTER Ashley 3.9 42

10ENTER Maria 3.6 46

11ENTER Anik 3.95 49

12ENTER Dan 3.95 50

13SERVED

### Expected Output

1Dan

2Ashley

3Shafaet

4Maria

## 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:

### Submitted Code

Language: Java 7

```
12 //Write your code here
13     static int B, H;
14     static boolean flag=true;
15     static {
16         Scanner sc=new Scanner(System.in);
17         B = sc.nextInt();
18         H = sc.nextInt();
19         if (B<=0 || H<=0){
20             System.out.print("java.lang.Exception: Breadth and height must be positive");
21             flag = false;
22             System.exit(0);
23         } else {
24             flag = true;
25         }
26     }
27
```

#### ✓ Test case 0

#### ✓ Test case 1

#### ✓ Test case 2

#### ✓ Test case 3

#### ✓ Test case 4

#### ✓ Test case 5

#### ✓ Test case 6

#### Compiler Message

Success

#### Input (stdin)

Download

```
1 1
2 3
```

#### Expected Output

Download

```
1 3
```

## 2. Java Int to String

Link: <https://www.hackerrank.com/challenges/java-int-to-string/problem>

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:


### Submitted Code


Language: Java 7

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

✓ Test case 0

✓ Test case 1 

✓ Test case 2 

✓ Test case 3 

Compiler Message

Success

Input (stdin)

[Download](#)

```
1 100
```

Expected Output

[Download](#)

```
1 Good job
```

### 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:

**Submitted Code**


Language: Java 7


```
25     public static String findDay(int month, int day, int year) {
26         String theDay = "";
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;
38         int m = month;
39         int k = year % 100;
40         int j = year / 100;
41         int h = q + 13*(m + 1) / 5 + k + k / 4 + j / 4 + 5 * j;
42         h = h % 7;
```


```
43         switch (h)
44         {
45             case 0 : theDay = "Saturday"; break;
46             case 1 : theDay = "Sunday"; break;
47             case 2 : theDay = "Monday"; break;
48             case 3 : theDay = "Tuesday"; break;
49             case 4 : theDay = "Wednesday"; break;
50             case 5 : theDay = "Thursday"; break;
51             case 6 : theDay = "Friday"; break;
52         }
53         return theDay.toUpperCase();
54     }
55
56 }
```


✓ **Test case 0**

✓ **Test case 1** 

✓ **Test case 2** 

✓ **Test case 3** 

✓ **Test case 4** 

✓ **Test case 5** 

Compiler Message

Success

Input (stdin)

1	08 05 2015
---	------------

Expected Output

1	WEDNESDAY
---	-----------

#### 4. Java Currency Formatter

Link: <https://www.hackerrank.com/challenges/java-currency-formatter/>

Q: Given a [double-precision](#) number, payment, denoting an amount of money, use the [NumberFormat](#) class' [getCurrencyInstance](#) method to convert payment into the US, Indian, Chinese, and French currency formats.

Accepted Answer:

#### Submitted Code

Language: Java 8

```
11 double payment = scanner.nextDouble();
12 scanner.close();
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));
22 System.out.println("China: " + china.format(payment));
23 System.out.println("France: " + france.format(payment));
24 }
25 }
26
```

✓ Test case 0

✓ Test case 1

✓ Test case 2

✓ Test case 3

✓ Test case 4

✓ Test case 5

✓ Test case 6

Compiler Message

Success

Input (stdin)

Download

1 12324.134

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

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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:


### Submitted Code

Language: Java 8

```
2
3 class UsernameValidator {
4     /*
5      * Write regular expression here.
6      */
7     public static final String regularExpression = "^([a-zA-Z]){1}([a-zA-Z0-9_]){7,29}$";
8 }
9
10
```


✓ Test case 0


✓ Test case 1 

✓ Test case 2 

✓ Test case 3 

✓ Test case 4 

✓ Test case 5 

✓ Test case 6 

6 Samantha?10\_2A

7 JuliaZ007

8 Julia@007

9 \_Julia007

Expected Output

[Download](#)

1 Invalid

2 Valid

3 Valid

4 Invalid

5 Invalid

6 Valid

7 Invalid

8 Invalid

## 6. Java Loops I

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

Q:

Task

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


Accepted Answer:


### Submitted Code

Language: Java 8

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

✓ Test case 0

✓ Test case 1 

✓ Test case 2 

Input (stdin)

Download

1	2
---	---

Expected Output

Download

1	2 x 1 = 2
2	2 x 2 = 4
3	2 x 3 = 6
4	2 x 4 = 8
5	2 x 5 = 10
6	2 x 6 = 12
7	2 x 7 = 14
8	2 x 8 = 16
9	2 x 9 = 18
10	2 x 10 = 20

## 7. Java Loops II

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

Accepted Answer:


### Submitted Code


Language: Java 8


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

✓ Test case 0

✓ Test case 1

✓ Test case 2 

✓ Test case 3 

✓ Test case 4 

Compiler Message

Success

Input (stdin)

[Download](#)

```
1 2
2 0 2 10
3 5 3 5
```

Expected Output

[Download](#)

```
1 2 6 14 30 62 126 254 510 1022 2046
2 8 14 26 50 98
```

## 8. Java Data Types

**Link:** <https://www.hackerrank.com/challenges/java-datatypes/problem>

**Accepted Answer:**

### Submitted Code

Language: java 8

```

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

```

✔ Test case 0

✔ Test case 1 

✔ Test case 2 

✔ Test case 3 

### Expected Output

Download

[illegible]