Recro

Assessment report

HighGrowth-Java-SE-1.1-Recro

Report Access URL: https://p.hck.re/dQte

Manmohan Gupta

RANK*	TOTAL SCORE	ATTEMPTED
289/305	4/78	10 of 12 questions

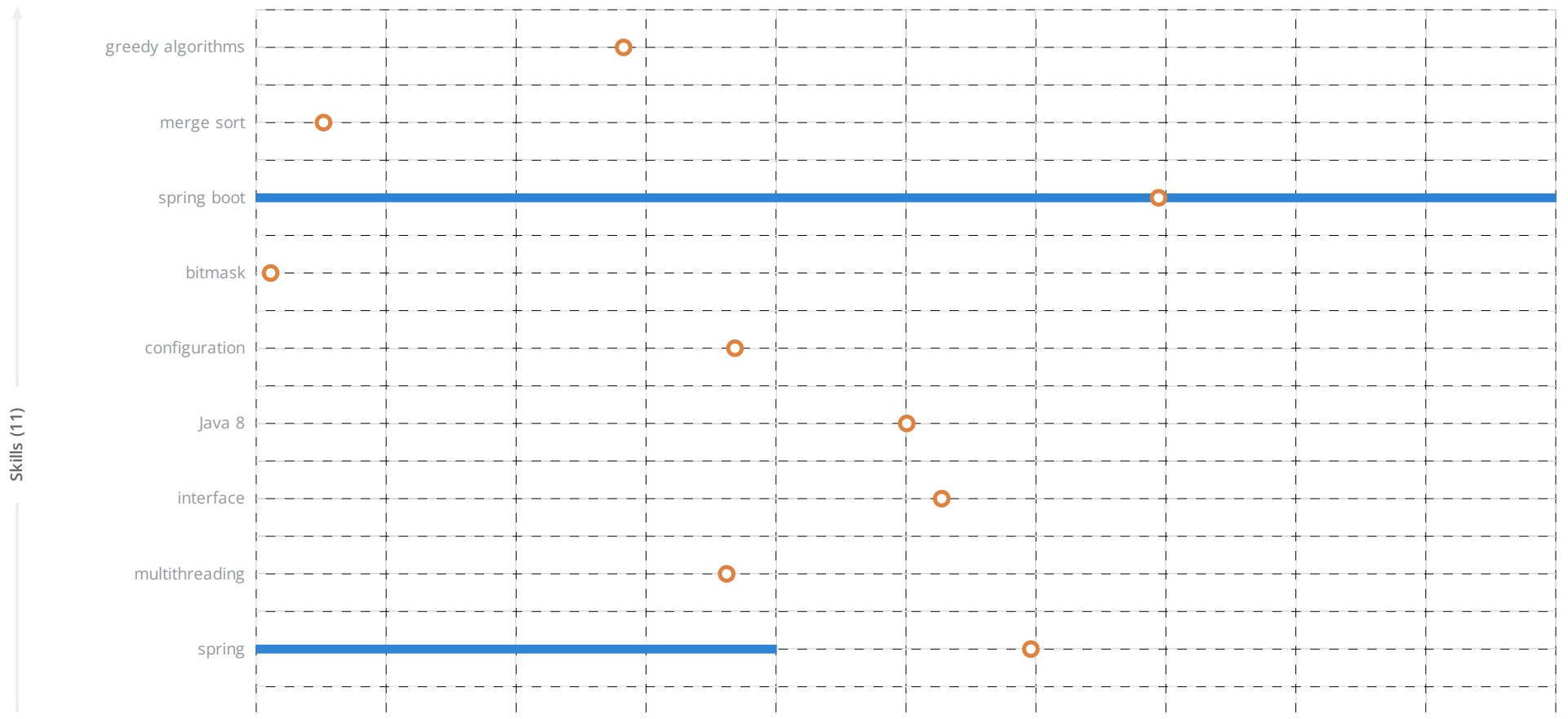
Test time analysis

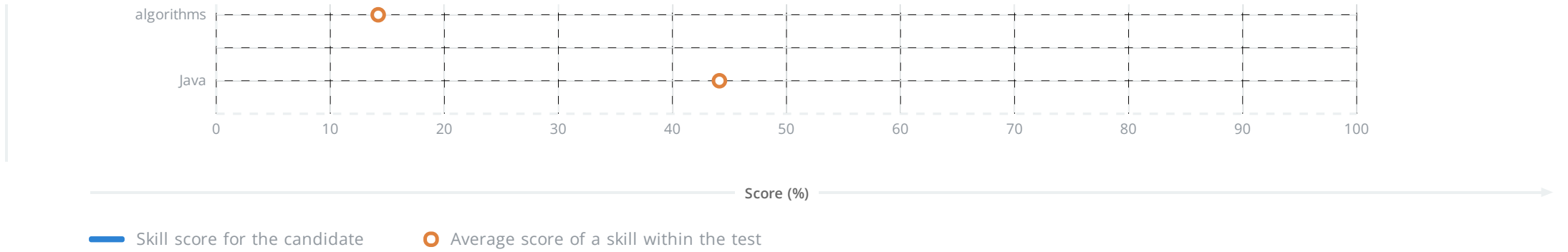
TEST INVITE TIME	TEST START TIME	TEST END TIME
Nov 23 2022, 01:06:06 PM IST	Nov 24 2022, 10:59:53 AM IST	Nov 24 2022, 11:59:53 AM IST

TEST DURATION

1 hr of 1 hr used.

Skill-wise performance





Top Performer

Top performer: spring boot

You have scored the highest score in spring boot.

About Manmohan Gupta

Education
Jamia Hamdard

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Sangam Vihar, Talimabad, New Delhi, De...

Languages
C++, C

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Detailed submission report

Multiple Choice Questions

Questions attempted: 10 of 10

#	Questions (10)	Result	Score (4/38)

1	What is the output of the following code written in Java?
	Code:
	`public class Hackerearth`
	`{`
	`  public static void main(String[] args)`
	`  {`
	`  String name = "Hackerearth";`
	`  for (int i = 0; i<name.length(); i++)`
	`  {`
	`  System.out.print(name.charAt(i+1));`
	`  }`
	`  }`
	`}
		⊗	0/2

```
}
```

Options

A. Hackerearth

B. Compilation Error

C. Runtime Error

D. ackerearth

2 Which of the following class declarations can be used to represent aggregation in java? ⊗ 0/2

Options

1.

```
class A{
}
class B{
A obj;
}
```

2.

```
class A{
}
class B extends A{
}
```

3.

```
class A{
}
class B extends A{
}
class C extends A{
}
```

4.

```
class A{
}
class B extends A{
}
class C extends B{
}
```

Options

A. 1

B. 2

C. 3

D. 4

3 You have written the code snippet given alongside when working with Wrapper classes in Java. What will be the result of executing the code snippet shown alongside? ⊗ 0/2

Code

```
double num1 = 272.002;
 int num2 = 264;
 byte num3 = (byte) num1;
 short num4 = (byte) num2;
 System.out.println(num3 +" "+ num4);
```

Options

A. 272 264

B. 16 8

C. 17 9

D. 16 -9

4 Jones is working on a project in Java language. He used Spring Framework in his project. He used Spring Annotations in the implementation of backend code. Spring Annotations are a form of metadata that provides data about a program. Annotations are used to provide supplemental information about a program. It does not have a direct effect on the operation of the code they annotate. Jones doesn't want to use @Configuration annotation for some weird reasons, he created the configuration class by not calling the `myBean()` method and rather using an instance variable of MyBean configured through @Autowired annotation. Understand the below code:

Code

```
package com.hackerearth.spring;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.context.annotation.Bean;
//line 4

//line 5
public class MyConfiguration {

        @Autowired
        MyBean myBean;

        @Bean
    public MyBean myBean() {
                return new MyBean();
        }

        //line 13
    public MyBeanConsumer myBeanConsumer() {
                return new MyBeanConsumer(myBean);
        }
}
```

What will be the code in place of lines 4,5, and 13?

1.
```
no code              //line 4
//@Configuration    //line 5
@Autowired          //line 13
```
2.
```
no code           //line 4
@Configuration    //line 5
no code           //line 13
```
3.
```
import org.springframework.annotation.Configuration;  //line 4
@configuration    //line 5
@Autowired       //line 13
```
4.
```
import org.springframework.context.annotation.Configuration;  //line 4
//@Configuration    //line 5
@Bean //line 13
```

Options

A. 1

B. 2

C. 3

D. 4

5 What is the output of the following Java code:

0/6

3 What is the output of the following java code? 0/0

Code

```
interface IntNumber
{
    void ins(int item);
    int delt();
}

class HackerEarth implements IntNumber
{
    private int stck[];
    private int pos;

HackerEarth(int size)
{
    stck = new int[size];
    pos = -1;
}

public void ins(int item)
{
    if(pos==stck.length-1)
        System.out.println("Overflow");
    else
        stck[++pos] = item;
}

public int delt()
{
    if(pos < 0)
    {
        System.out.println("Underflow");
        return 0;
    }
    else
    return stck[pos--];
}
}

class Hacker
{
public static void main(String args[])
{
    HackerEarth obj = new HackerEarth(3);
    for(int i=0; i<4; i++) obj.ins(i);
    for(int i=0; i<=3; i++)
    System.out.println(obj.delt());
}
}
```

Output

1. Overflow
   2
   1
   0
   Underflow
   0
2. 2
   1
   0
   0
3. Overflow
   2
   1

```
0
0
```

4.
```
2
1
0
Underflow
0
```

Options

A. 1

B. 2

C. 3

D. 4

---

6 In Java, you are working on collection frameworks. You are given the following Java code that performs operations on Linked List. ⊗ 0/4

Code

```
import java.util.*;
class Example {
    public static void main(String args[]){

        LinkedList<String> list_1=new LinkedList<String>();
        list_1.add("Alice");
        list_1.add("Mike");

        LinkedList<String> list_2=new LinkedList<String>();
        list_2.add("Bob");
        list_2.add("Lisa");
        list_2.addAll(0,list_1);
        list_2.addLast("Bob");
        list_2.remove("Bob");

        Iterator itr=list_2.descendingIterator();
           while(itr.hasNext())
           {
               System.out.println(itr.next());
           }
    }
}
```

Which of the following outputs is the correct output of the above Java code?

Outputs

1.
```
Alice
Mike
Lisa
```

2.
```
Alice
Mike
Bob
Lisa
```

3.
```
Alice
```

```
Mike
Lisa
Bob
```

4.

```
Bob
Lisa
Mike
Alice
```

Options

A. 1

B. 2

C. 3

D. 4

7 In Java, you are working on Multithreading. If you have executed the code given below that contains three threads **h1**, **h2,** and **h3,** then which of the following statements is correct? ⊗ 0/4

Code:

```
class hack_thread extends Thread
{
    public void run()
    {
        for(int h=1;h<=3;h++)
        {
            try
            {
                Thread.sleep(10);

            }
            catch(Exception hackerearth)
            {
                System.out.println("hello");

            }
            System.out.print(h+" ");

    }

}
public static void main(String args[])
{
    hack_thread h1=new hack_thread();
    hack_thread h2=new hack_thread();
    hack_thread h3=new hack_thread();

    h1.setPriority(Thread.MAX_PRIORITY);
    h2.setPriority(Thread.MIN_PRIORITY);
    h3.setPriority(Thread.NORM_PRIORITY);
    h1.start();

    try
    {
        h1.join();
        h2.join();

    }
    catch(Exception hackerearth)
```

```
        catch(Exception hackerearth)
        {
            System.out.println("hi");

        }
        h2.start();
        h3.start();

    }
}
```

Statements:

1. Thread h1 executes before thread h2 and thread h3 starts.

2. Thread h2 and thread h3 execute simultaneously

3. Thread h3 starts executing after h2 has completed its task.

Options

A. 1 and 2

B. 2 and 3

C. 1 and 3

D. Only 1

8 You have the following Java method definition. ⊗ 0/4

```
Public static List process( List args) {
//do something
}
```

What is the correct way to invoke this method?

Options

1.

```
ArrayList<Integer> list = new ArrayList<>(); List<Number> numbers = process(list);
```

2.

```
ArrayList<Number> list = new ArrayList<>(); List<? extends Number> numbers = process
```

3.

```
ArrayList<Number> list = new ArrayList<>(); List<Object> numbers = process(list);
```

Options

A. 1

B. 2

C. 3

D. Both 2 and 3

9 Which of these is an unordered collection of key and value pairs that resembles native map implementations of Java? ⊗ 0/4

Options

A. JSONArray

B. JSONObject

C. JSONTokener

D. None of these

10	Johnson is working to develop an application in Java language. He used 'X' framework to make his application more flexible and secure. Since he used 'X'. It reduces development time and increases the productivity. What is 'X'? **Options** A. Spring B. Spring MVC C. Spark D. Spring Boot	✓	4/4

Programming Questions

Questions attempted: 0 of 2

#	Questions (2)	No. of attempts	Result	Score (0/40)
1	Digit sum You are given a string of length *2N* consisting of only digits from *0 to 9*. You can make a move to choose an arbitrary position and replace the digit in that position with any digit from *0 to 9*. **Task** Determine the minimum number of moves required to make the sum of the first *N* digits equal to the sum of the *N* digits that follow. *Note*: *1*-based indexing is used. **Example** *Assumptions* • *N = 3* • *S = 111279* *Approach* • Change S[1] from 1 to 9 • Change S[5] from 7 to 0 Now, *S = 911209* Therefore, the sum of *S[1]* to *S[3] = 9 + 1 + 1 = 11* and the sum of *S[4]* to *S[6] = 2 + 0 + 9 = 11*. Hence, the minimum number of moves required is *2*. *Note*: There can be other possible ways to achieve the answer, but we can not get the required result sum in less than 2 changes. **Function description** Complete the function *solve* provided in the editor. This function takes the following *2* parameters and returns the answer: • *N:* Represents an integer denoting *N* • *S:* Represents a string denoting *S* **Input format** **Note**: This is the input format you must use to provide custom input (available above the **Compile and Test** button). • The first line contains *T* denoting the number of test cases. *T* also specifies the number of times you have to run the *solve* function on a different set of inputs. • For each test case: ◦ The first line contains an integer *N.* ◦ The next line contains a string *S* of length *2N.* **Output format** For each test case in a new line, print the answer.	0	—	0/20

Constraints

$1 \leq T \leq 10$

$1 \leq N \leq 10^5$

Code snippets (also called starter code/boilerplate code)

This question has code snippets for C, CPP, Java, and Python.

2 Count pairs 0 — 0/20

You are given an array *a* consisting of *N* integers.

Task

For each *k* from *1* to *20* you have to count total pairs (*i, j*) such that *(a[i]* $\oplus$ *a[j])* modulo 2^{k-1} = 0 where $1 \leq i < j \leq N$.

Notes

- *a* modulo *b* means remainder when *a* is divided by *b*.
- Assume *1*-based indexing.

Example

Assumptions

- *N = 3*
- *a = [1, 3, 15]*

Approach

- *Consider all pairs* (i, j)
  - *(1, 2)* *(1* $\oplus$ *3)=2*
  - *(1, 3)* *(1* $\oplus$ *15)=14*
  - *(2, 3)* *(3* $\oplus$ *15)=12*
- For *k=1* all pairs give modulo 2^{k-1} as 0 . So the answer is *3*.
- For *k=2* all pairs give modulo 2^{k-1} as 0 . So the answer is *3* as well
- For *k=3* only the pair $\{2, 3\}$ gives modulo 2^{k-1} as 0 . So the answer is only 1.
- For $k \geq 4$ no pair gives modulo 2^{k-1} as 0 . So the answer is *0* for the rest.
- Therefore, the output is *[3, 3, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0]*

Function description

Complete the function *solve* provided in the editor. This function takes the following *2* parameters and returns the required answer:

- *N:* Represents the size of array *a*
- *a:* Represents the elements of the array *a*

Input format

Note: This is the input format that you must use to provide custom input (available above the **Compile and Test** button).

- The first line contains *T* denoting the number of test cases. *T* also specifies the number of times you have to run the *solve* function on a different set of inputs
- For each test case:
  - The first line contains *N* denoting the size of array *a*.
  - The second line contains *N* space-separated integers denoting the elements of the array.

Output format

For each test case, output 20 space-separated integers in a new line where each integer represents the number of possible pairs for each k from *1* to *20.*

Constraints

$1 \leq T \leq 10$

$1 \leq N \leq 10^5$

$0 \leq a[i] < 2^{20}$

Code snippets (also called starter code/boilerplate code)

This question has code snippets for C, CPP, Java, and Python.

This question has code snippets for C, CPP, Java, and Python.

* - This information is based on the data that is available untill Nov 24, 2022 06:35 AM GMT. Your rank may be updated once all the candidates have successfully completed their tests.

Thank you for taking this test. All the best for further processes.

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