A. Soal Medium

1. **Java MD5**
   Link: https://www.hackerrank.com/challenges/java-md5/problem

   Accepted Answer:

Submitted Code

Language: Java 8

```java
 9     public static void main(String[] args) {
10         String s = "";
11         Scanner sc = new Scanner(System.in);
12         s = sc.next();
13         String hash = "";
14         try {
15             MessageDigest md5 = MessageDigest.getInstance("MD5");
16             md5.update(s.getBytes());
17             byte[] digest = md5.digest();
18             hash = DatatypeConverter.printHexBinary(digest);
19             s = hash;
20             System.out.println(s.toLowerCase());
21         } catch (NoSuchAlgorithmException e) {
22             System.out.println("can't find the suitable algorithms");
23         }
24 }
```

⊘ Test case 0	Compiler Message
⊘ Test case 1	Success
⊘ Test case 2 🔒	Input (stdin) Download
⊘ Test case 3 🔒	1 HelloWorld
⊘ Test case 4 🔒	Expected Output Download
⊘ Test case 5 🔒	1 68e109f0f40ca72a15e05cc22786f8e6
⊘ Test case 6 🔒	

Soal Easy

1. **Java 1D Array**
   Link: https://www.hackerrank.com/challenges/java-1d-array-introduction/problem

   Accepted Answer:

   ## Submitted Code

   Language: Java 8

   ```
   10
   11        int[] a = new int[n];
   12        for (int i = 0; i < a.length; i++) {
   13            a[i] = scan.nextInt();
   14        }
   15
   ```

   ✓ **Test case 0**

   ✓ **Test case 1** 🔒

   Compiler Message

   Success

   Input (stdin)   Download

   ```
   1    5
   2    10
   3    20
   4    30
   5    40
   6    50
   ```

   Expected Output   Download

   ```
   1    10
   ```

2. **Java Primality Test**
   Link: https://www.hackerrank.com/challenges/java-primality-test/problem

   Accepted Answer:

Submitted Code

Language: Java 8

```java
11     private static final Scanner scanner = new Scanner(System.in);
12
13     public static void main(String[] args) {
14         String n = scanner.nextLine();
15         BigInteger big = new BigInteger(n);
16
17         if (big.isProbablePrime(1)) {
18             System.out.println("prime");
19         } else {
20             System.out.println("not prime");
21         }
22         scanner.close();
23     }
24 }
25
```

✓ 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   13

Expected Output   Download

1   prime

3. **Java Map (Phonebook)**
   Link: https://www.hackerrank.com/challenges/phone-book/problem

   Accepted Answer:

Submitted Code

Language: Java 8

```java
//Complete this code or write your own from scratch
import java.util.*;
import java.io.*;

class Solution{
    public static void main(String []argh)
    {
        Scanner in = new Scanner(System.in);

        HashMap<String, String> maps = new HashMap<>();

        int n=in.nextInt();
        in.nextLine();
        for(int i=0;i<n;i++)
        {
            String name=in.nextLine();
            int phone=in.nextInt();
            maps.put(name, String.valueOf(phone));
            in.nextLine();
        }
        while(in.hasNext())
        {
            String s=in.nextLine();
            if (maps.get(s)==null){
                System.out.println("Not found");
            } else {
                System.out.println(s+"="+maps.get(s));
            }
    }
```

2	uncle sam
3	99912222
4	tom
5	11122222
6	harry
7	12299933
8	uncle sam
9	uncle tom
10	harry

Expected Output   Download

1	uncle sam=99912222
2	Not found
3	harry=12299933

Test case 0
Test case 1
Test case 2
Test case 3
Test case 4

4. Java Sort
   Link: https://www.hackerrank.com/challenges/java-sort/problem

Accepted Answer:

Submitted Code

Language: Java 8

```java
24 //Complete the code
25 public class Solution
26 {
27     public static void main(String[] args){
28         Scanner in = new Scanner(System.in);
29         int testCases = Integer.parseInt(in.nextLine());
30
31         List<Student> studentList = new ArrayList<Student>();
32         while(testCases>0){
33             int id = in.nextInt();
34             String fname = in.next();
35             double cgpa = in.nextDouble();
36
37             Student st = new Student(id, fname, cgpa);
38             studentList.add(st);
39
40             testCases--;
41         }
42         Collections.sort(studentList,
43             Comparator.comparing(
44                 Student::getCgpa).reversed()
45                 .thenComparing(Student::getFname)
46                 .thenComparing(Student::getId)
47         );
48         for(Student st: studentList){
49             System.out.println(st.getFname());
50         }
51     }
52 }
```

Input (stdin)   Download

```
1   5
2   33 Rumpa 3.68
3   85 Ashis 3.85
4   56 Samiha 3.75
5   19 Samara 3.75
6   22 Fahim 3.76
```

Expected Output   Download

```
1   Ashis
2   Fahim
3   Samara
4   Samiha
5   Rumpa
```

5. **Java Exception-Handling (Try Catch)**
   Link: https://www.hackerrank.com/challenges/java-exception-handling-try-catch/problemQ:

Accepted Answer:
Submitted Code

Language: Java 8   ⌐ Open in editor

```java
 6      public static void main(String[] args) {
 7          /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named
        Solution. */
 8          try {
 9              Scanner sc = new Scanner(System.in);
10              int x = sc.nextInt();
11              int y = sc.nextInt();
12              int z = x/y;
13              if (y==0) {
14                  throw new java.lang.ArithmeticException("/ by zero");
15              } else {
16                  System.out.println(z);
17              }
18          } catch(java.lang.ArithmeticException ae){
19              System.out.println(ae);
20          } catch(InputMismatchException ime){
21              System.out.println(ime.getClass().getName());
22          } catch(Exception e){
23              System.out.println(e);
24          }
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 | 10 |
| 2 | 3 |

Expected Output   Download

| 1 | 3 |

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    10
2    Hello
```

Expected Output   Download

```
1    java.util.InputMismatchException
```

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    10
2    0
```

Expected Output   Download

```
1    java.lang.ArithmeticException: / by zero
```

6. Java Reflection

Link: https://www.hackerrank.com/challenges/java-reflection-attributes/problemQ:

Accepted Answer:

Submitted Code

Language: Java 7

```java
84  public class Solution {
85
86          public static void main(String[] args){
87              Class student = Student.class;
88              Method[] methods = student.getDeclaredMethods();
89
90              ArrayList<String> methodList = new ArrayList<>();
91              for(Method mtd : methods){
92                  methodList.add(mtd.getName());
93              }
94              Collections.sort(methodList);
95              for(String name: methodList){
96                  System.out.println(name);
97              }
98          }
99  }
```

✓ **Test case 0** 🔒

Compiler Message

Success

🔒 **Hidden Test Case**

Unlock this testcase for 5 hackos.

Unlock

7. **Java Method Overriding**

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

   Accepted Answer:

Submitted Code

Language: Java 8

```
20
21
22    // Write your overridden getNumberOfTeamMembers method here
23    @Override
24    void getNumberOfTeamMembers(){
25        System.out.println("Each team has 11 players in " + getName());
26    }
27
```

⊘ **Test case 0**

Compiler Message

Success

Expected Output   **Download**

```
1    Generic Sports
2    Each team has n players in Generic Sports
3    Soccer Class
4    Each team has 11 players in Soccer Class
```

8. **Java Generics**
   Link: https://www.hackerrank.com/challenges/java-generics/problem
   Accepted Answer:

Submitted Code

Language: Java 7

```java
6
7
8  class Printer
9  {
10     //Write your code here
11     public static <E> void printArray(E[] inputArr){
12         for (E i:inputArr){
13             System.out.println(i);
14         }
15     }
16
17 }
18
```

⊘ **Test case 0**

Compiler Message

Success

Expected Output   Download

```
1    1
2    2
3    3
4    Hello
5    World
```