

## DAILY ONLINE ACTIVITIES SUMMARY

Date:	28/05/2020	Name:	ASHIKA
Sem & Sec	6 A	USN:	4AL17CS016

### Online Test Summary

Subject	OPERATING SYSTEM		
Max. Marks	30	Score	20

### Certification Course Summary

Course	ETHICAL HACKING		
Certificate Provider	Great learningg	Duration	6 hour

### Coding Challenges

#### Problem Statement:

#### 1. Python program to find digital root of a number

Description:

A digital root is the recursive sum of all the digits in a number. Given n, take the sum of the digits of n. If that value has more than one digit, continue reducing in this way until a single-digit number is produced. This is only applicable to the natural numbers.

```
digit_root(0)= 0
```

```
digital_root(16)
```

```
=> 1 + 6
```

```
=> 7
```

```
digital_root(132189)
```

```
=> 1 + 3 + 2 + 1 + 8 + 9
```

```
=> 24 ...
```

```
=> 2 + 4
```

```
=> 6
```

#### 2. JAVA PROGRAM-BALANCED BRACKET

Write a function that accepts a string consisting entirely of brackets ({} ) and returns whether it is balanced. Every "opening" bracket must be followed by a closing bracket of the same type. There can also be nested brackets, which adhere to the same rule.

```
f('(){}{()}{}') // true
```



```
f('(){}') // false
```



<b>Status: done(executed)</b>	
<b>Uploaded the report in Github</b>	<b>yes</b>
<b>If yes Repository name</b>	<a href="https://github.com/ASHIKA-05/DAILY-REPORT">https://github.com/ASHIKA-05/DAILY-REPORT</a>
<b>Uploaded the report in slack</b>	<b>yes</b>

## SUBJECT: OPERATING SYSTEM



The screenshot shows a web browser window with the URL `techgig.com/challenge/result/problems/VHVwN2lydk5aQIRiN0NEVlB2WDJaQT09`. The page has a dark purple header with the text "Test Completed!" and "You have successfully participated in OS-17CS64-TEST 2." Below this, there is a "Rate this Test" section with a star rating and a "Click to Rate" button. The main content area is divided into two columns. The left column, under the "Results" tab, shows "Test 2 submitted" for "PROBLEMS" with a score of 8 / 12. The right column shows "Test 1 submitted" for "MCQ" with a score of 12 / 18. The user's email address, ashikakulal252@gmail.com, and a "Logout" link are visible in the top right corner.



## CERTIFICATION COURSE

 Career and Growth Ladder in Ethical Hacking 

 Domains and Process Implementation under Ethical Hacking 

 Ethical Hacking in Network Architecture-Demonstration 

 Ethical Hacking in Web Applications-Demonstration 













 Ethical Hacking on Mobile Platforms-Demonstration 

 What is Ethical Hacking

Quiz 

Claim Your Course Certificate 

### Learning videos

-  Career and Growth Ladder in Ethical Hacking 
-  Domains and Process Implementation under Ethical Hacking 
-  Ethical Hacking in Network Architecture-Demonstration 
-  Ethical Hacking in Web Applications-Demonstration 
-  Ethical Hacking on Mobile Platforms-Demonstration 
-  What is Ethical Hacking 

Quiz



ONLINE CODEING

## 1. Python program to find digital root of a number

Description:

A digital root is the recursive sum of all the digits in a number. Given n, take the sum of the digits of n. If that value has more than one digit, continue reducing in this way until a single-digit number is produced. This is only applicable to the natural numbers.

`digit_root(0)= 0`

`digital_root(16)`

`=> 1 + 6`

`=> 7`

`digital_root(132189)`

`=> 1 + 3 + 2 + 1 + 8 + 9`

`=> 24 ...`

`=> 2 + 4`

`=> 6`

```
def DigitalRoot(number):
```

```
    addper = 0
```

```
    while number >=10:
```

```
        number = sum(int(digit)for digit in str(number))
```

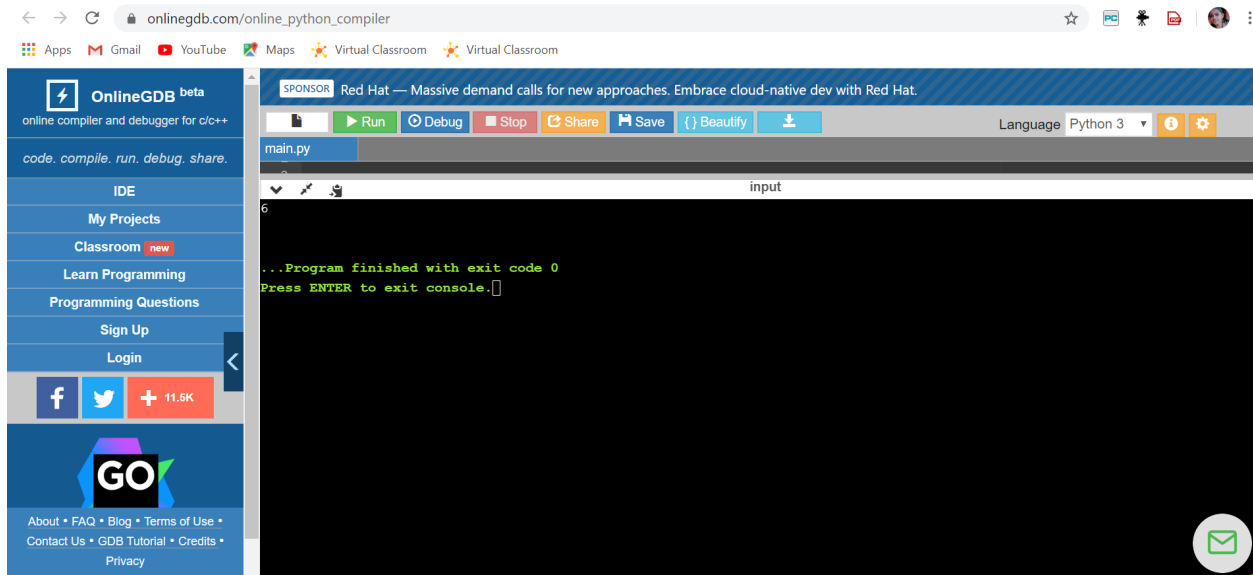
```
        addper +=1
```

```
    #I highly recommend using return instead of print, but for testing purposes  
    I used print
```

```
    print(number)
```

```
DigitalRoot(132189)
```

**Output:**



## 2. JAVA PROGRAM-BALANCED BRACKET

Write a function that accepts a string consisting entirely of brackets ({} ) and returns whether it is balanced. Every "opening" bracket must be followed by a closing bracket of the same type. There can also be nested brackets, which adhere to the same rule.

`f('(){}{({})}{{(O)}}') // true`

`f('(){}{') // false`

```
import java.util.Stack;

public class Main {

public static void main(String[] args) {

    System.out.println(is_parentheses_balanced("(){}{({})}{{(O)}}");

}

public static boolean matchingPeer(char open , char close){

    if ( open == '(' && close == ' '){

        return true;

    }

    if ( open == '[' && close == ' '){
```

```

        return true;
    }
    else{
        return false;
    }
}

```

```

public static boolean is_parentheses_balanced(String equation){

    char[] c = equation.toCharArray();
    Stack <Character> myStack= new Stack <Character> ();
    for (int i = 0; i < c.length; i++){
        if(c[i]=='(' || c[i] == '[' ){
            myStack.push(c[i]);
        }
        else if (c[i]== ')' || c[i]==']'){
            if(matchingPeer(myStack.peek(),c[i]) == true){
                myStack.pop();
            } else {
                return false;
            }
        }
    }
}

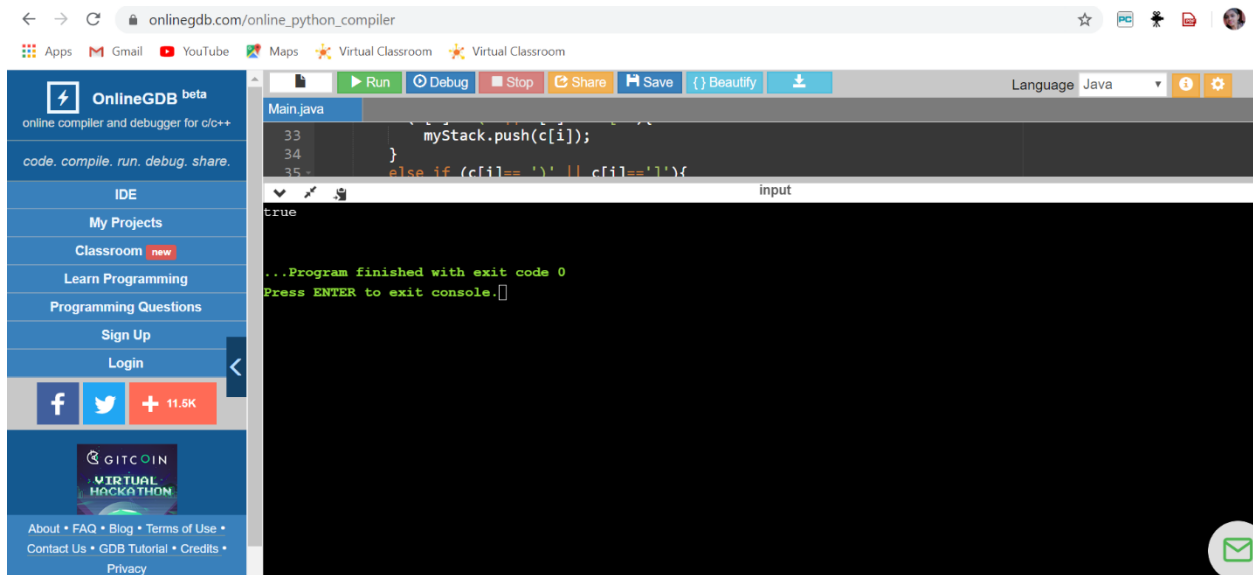
```

```

        if(myStack.isEmpty()){
            return true;
        }
        else {
            return false;
        }
    }
}

```

### Output:



3. write jsp script to determine how many times the visitor has loaded the page

```
<%@ page import = "java.io.*,java.util.*" %>
```

```
<html>
```

```
<head>
```



```
<title>Application object in JSP</title>

</head>

<body>

<%

    Integer hitsCount = (Integer)application.getAttribute("hitCounter");

    if( hitsCount ==null || hitsCount == 0 ) {

        /* First visit */

        out.println("Welcome to my website!");

        hitsCount = 1;

    } else {

        /* return visit */

        out.println("Welcome back to my website!");

        hitsCount += 1;

    }

    application.setAttribute("hitCounter", hitsCount);

%>

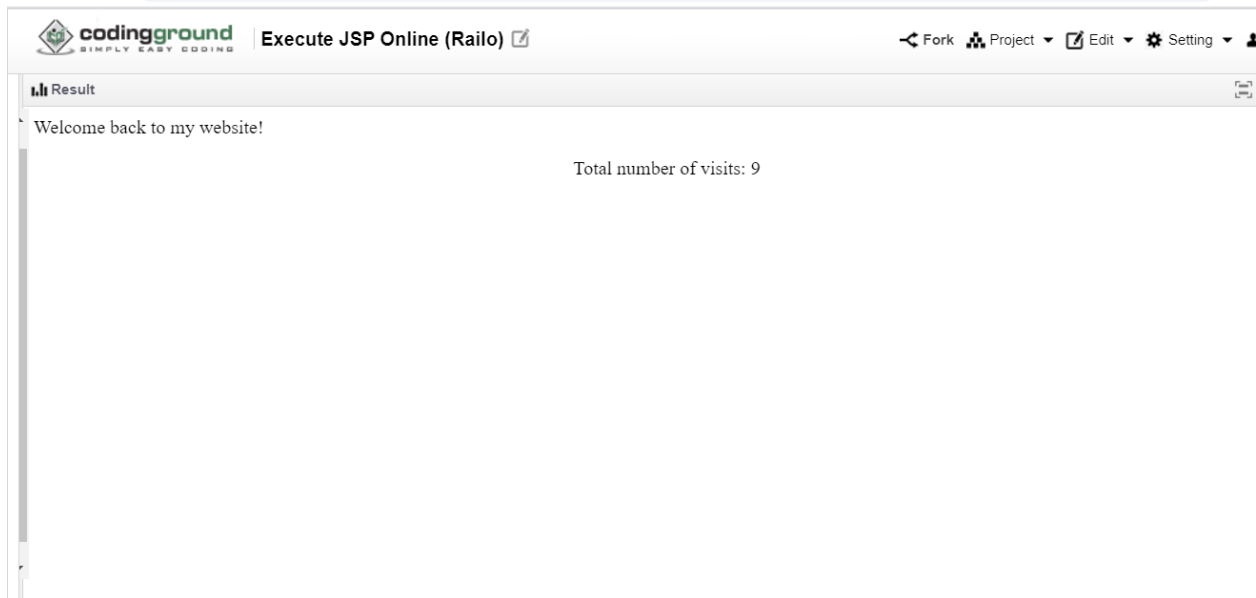
<center>

    <p>Total number of visits: <%= hitsCount%></p>

</center>

</body>

</html>
```



4.write jsp code to display today's date and time using expression tag

```
<%@ page import = "java.io.*,java.util.*, javax.servlet.*" %>

<html>

<head>

<title>Display Current Date & Time</title>

</head>

<body>

<center>

<h1>Display Current Date & Time</h1>

</center>

<%

Date date = new Date();

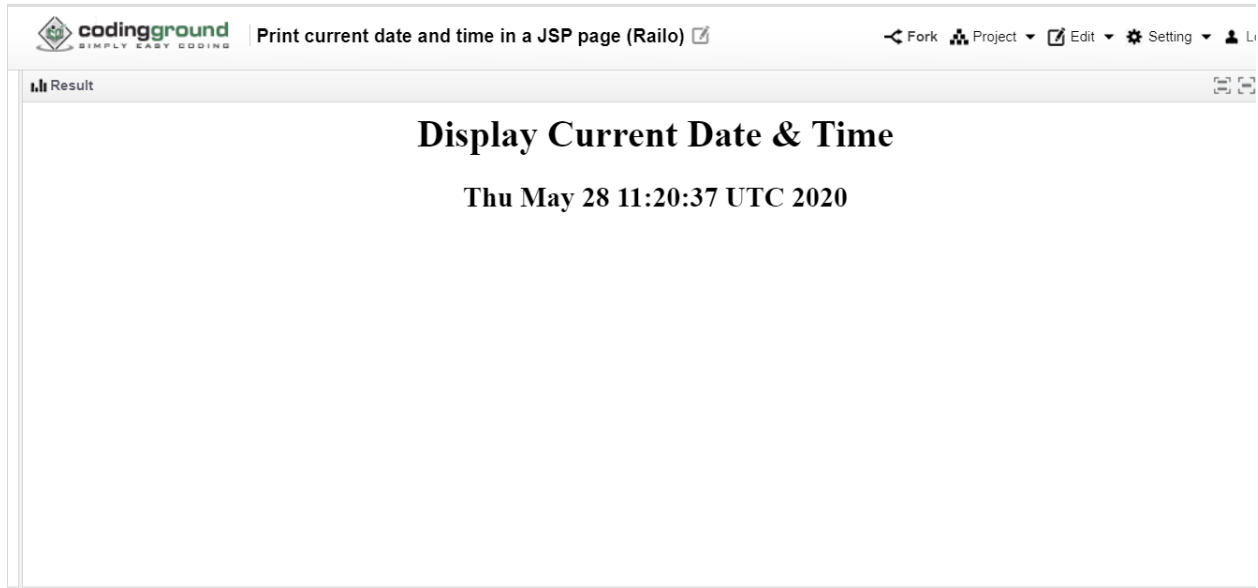
out.print( "<h2 align = \"center\">" +date.toString()+"</h2>");

%>
```

</body>

</html>

**Output:**



5. Given an array `arr[]` of size `N` and an integer `K`. The task is to find the last remaining element in the array after reducing the array.

The rules for reducing the array are:

#The first and last element say `X` and `Y` are chosen and removed from the array `arr[]`.

#The values `X` and `Y` are added.  $Z = X + Y$ .

#Insert the value of  $Z \% K$  into the array `arr[]` at the position  $((N/2) + 1)$ th position, where `N` denotes the current length of the array.

Examples:

Input: `N = 5`, `arr[] = {1, 2, 3, 4, 5}`, `K = 7`

Output: 1

Explanation:

The given array `arr[]` reduces as follows:

`{1, 2, 3, 4, 5}` -> `{2, 6, 3, 4}`

`{2, 6, 3, 4}` -> `{6, 6, 3}`

`{6, 6, 3}` -> `{2, 6}`

`{2, 6}` -> `{1}`

The last element of `A` is 1.

```
#include <iostream>
using namespace std;

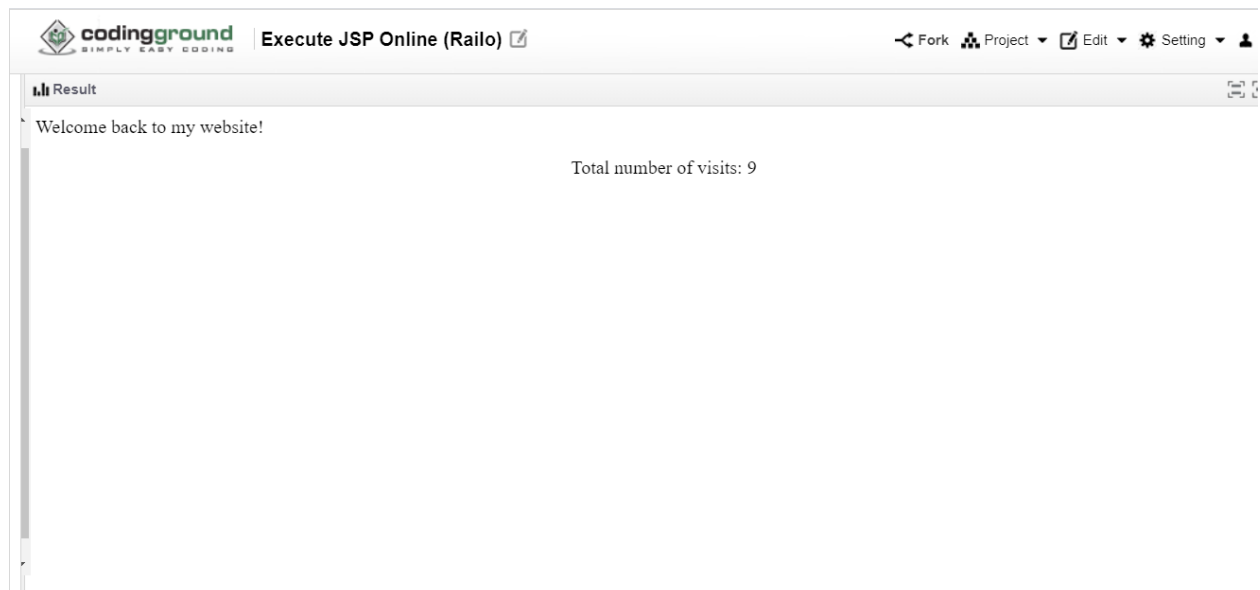
int find_value(int a[], int n, int k)
{
    int sum = 0;

    for (int i = 0; i < n; i++) {
        sum += a[i];
    }

    return sum % k;
}

int main()
{
    int n = 5, k = 7;
    int a[] = { 1, 2, 3, 4, 5 };
    cout << find_value(a, n, k);
    return 0;
}
```

**Output:**



The screenshot shows a web browser window with the following elements:

- Address Bar:** Contains the text "codingground" and "Execute JSP Online (Railo)".
- Navigation Bar:** Includes icons for "Fork", "Project", "Edit", "Setting", and a user profile icon.
- Page Content:** Displays the output of a Java program, which is "Welcome back to my website!" followed by "Total number of visits: 9".

