

DAILY ONLINE ACTIVITIES SUMMARY

Date:	09/06/2020	Name:	Prajwal
Sem & Sec	IV sem & B sec	USN:	4AL18CS057
Online Test Summary			
Subject	Design And Analysis Of Algorithm		
Max. Marks	-----	Score	-----
Certification Course Summary			
Course	Cloud Foundation		
Certificate Provider	Great Learning	Duration	05 hours
Coding Challenges			
<p>Problem Statement:1. Write a C program to rotate the matrix by K times.</p> <p>2. Write a java program to count all the triplets such that sum of two elements equals to the third element.</p> <p>3. Write a java program to find total number of subarrays which start and end with same elements.</p>			
Status: Done			
Uploaded the report in Github		YES	
If yes Repository name		https://github.com/PRAJWALKOTIAN/lockdown-coding	
Uploaded the report in slack		YES	

Online test details

No test was conducted on 09 june 2020.

Certification Course Details

The course I have chosen is CLOUD FOUNDATIONS in this I studied regarding pricing and scaling models

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≡ Course Content

Module 5 - Pricing & Scaling Models



27. Debate

28. Subscription model

29. Classical Scaling model

30. Cloud Scaling model - Elasticity

31. Cost economics - Classical model

32. Cost economics - Cloud model

33. **Scaling in Google & AWS**

34. Vertical/Specialized vs Horizontal/Commodity

35. Virtualization

36. A typical application stack

37. Virtualized stack

38. Cloud VM characteristics

39. Virtualization drawbacks

Scaling in Google & AWS

Configuration	Number of instances	Average CPU	Average Latency	Scaling Strategy
1. 1000	1000	100%	100ms	Static
2. 1000	1000	100%	100ms	Static
3. 1000	1000	100%	100ms	Static
4. 1000	1000	100%	100ms	Static
5. 1000	1000	100%	100ms	Static
6. 1000	1000	100%	100ms	Static
7. 1000	1000	100%	100ms	Static
8. 1000	1000	100%	100ms	Static
9. 1000	1000	100%	100ms	Static
10. 1000	1000	100%	100ms	Static
11. 1000	1000	100%	100ms	Static
12. 1000	1000	100%	100ms	Static
13. 1000	1000	100%	100ms	Static
14. 1000	1000	100%	100ms	Static
15. 1000	1000	100%	100ms	Static
16. 1000	1000	100%	100ms	Static
17. 1000	1000	100%	100ms	Static
18. 1000	1000	100%	100ms	Static
19. 1000	1000	100%	100ms	Static
20. 1000	1000	100%	100ms	Static

A script simulated load and Google spun up instances to handle it automatically.

AWS configuration allowing 1 min 4 max instances of certain type with specific rules of scalability

Instances

Environment type: Load balanced, auto scaling

Number instances: 1 - 4

Scale based on Average network out

Add instance when > 0.000000

Remove instance when < 0.000000

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Next →

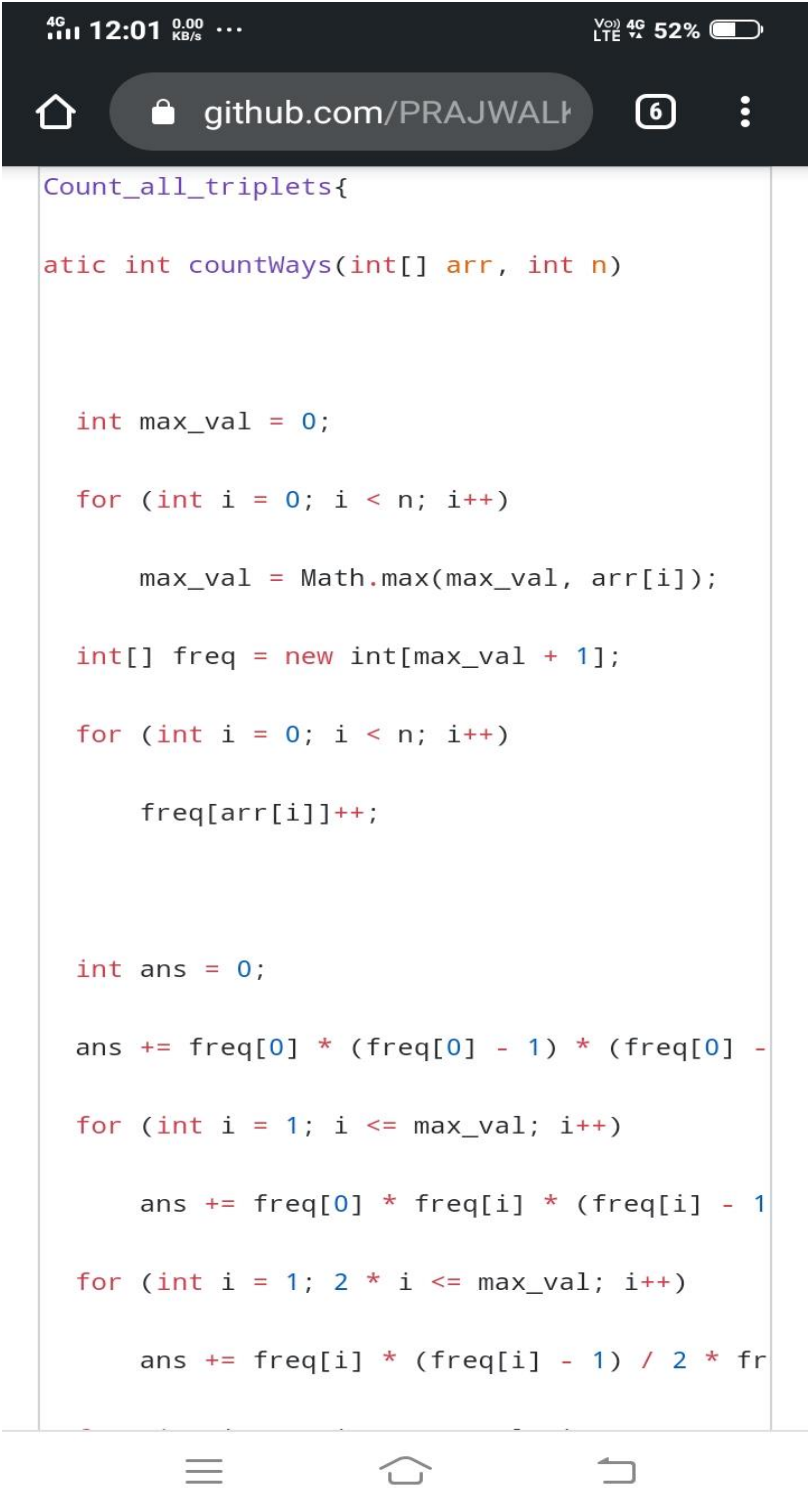
Coding Challenges Details

The bellow given codes are there on my github repository <https://github.com/PRAJWALKOTIAN/lockdown-coding>

1. Write a C program to rotate the matrix by K times.

```
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#include <iostream>
#define M 3
#define N 3
using namespace std;
void displayMatrix(int matrix[][M])
{
    for (int i = 0; i < N; i++)
    {
        for (int j = 0; j < M; j++)
        {
            cout << matrix[i][j] << " ";
        }
        cout << endl;
    }
}
int main()
{
    int matrix[N][M];
    cout<<"Enter the matrix elements"<<endl;
    for(int i = 0 ; i < M ; i++)
    {
        for(int j = 0 ; j < N ; j++)
        {
            cin >> matrix[i][j];
        }
    }
    cout << "The given matrix is" << endl;
    displayMatrix(matrix);
    int temp[M];
    int k;
    cout << "Number of rotations : ";
    cin >> k;
    k = k % M;
    for (int i = 0; i < N; i++)
    {
```

2. Write a java program to count all the triplets such that sum of two elements equals to the third element.

A screenshot of a mobile browser interface. The status bar at the top shows '4G' signal, time '12:01', speed '0.00 KB/s', and battery '52%'. The address bar shows 'github.com/PRAJWAL'. The main content area displays a Java code snippet for counting triplets. The code is as follows:

```
Count_all_triplets{  
  
    static int countWays(int[] arr, int n)  
  
        int max_val = 0;  
  
        for (int i = 0; i < n; i++)  
            max_val = Math.max(max_val, arr[i]);  
  
        int[] freq = new int[max_val + 1];  
  
        for (int i = 0; i < n; i++)  
            freq[arr[i]]++;  
  
        int ans = 0;  
  
        ans += freq[0] * (freq[0] - 1) * (freq[0] - 2) / 6;  
  
        for (int i = 1; i <= max_val; i++)  
            ans += freq[0] * freq[i] * (freq[i] - 1) / 2;  
  
        for (int i = 1; 2 * i <= max_val; i++)  
            ans += freq[i] * (freq[i] - 1) / 2 * fr
```

The browser interface includes standard mobile navigation icons at the bottom: a hamburger menu, a home button, and a back button.

3. Write a java program to find total number of subarrays which start and end with same elements.

```
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public static void cntArray(int A[], int N)
{
    int result = 0;

    for (int i = 0; i < N; i++) {
        result++;

        int current_value = A[i];

        for (int j = i + 1; j < N; j++) {
            if (A[j] == current_value) {
                result++;
            }
        }
    }

    // print the result
    System.out.println(result);
}
```