

## DAILY ONLINE ACTIVITIES SUMMARY

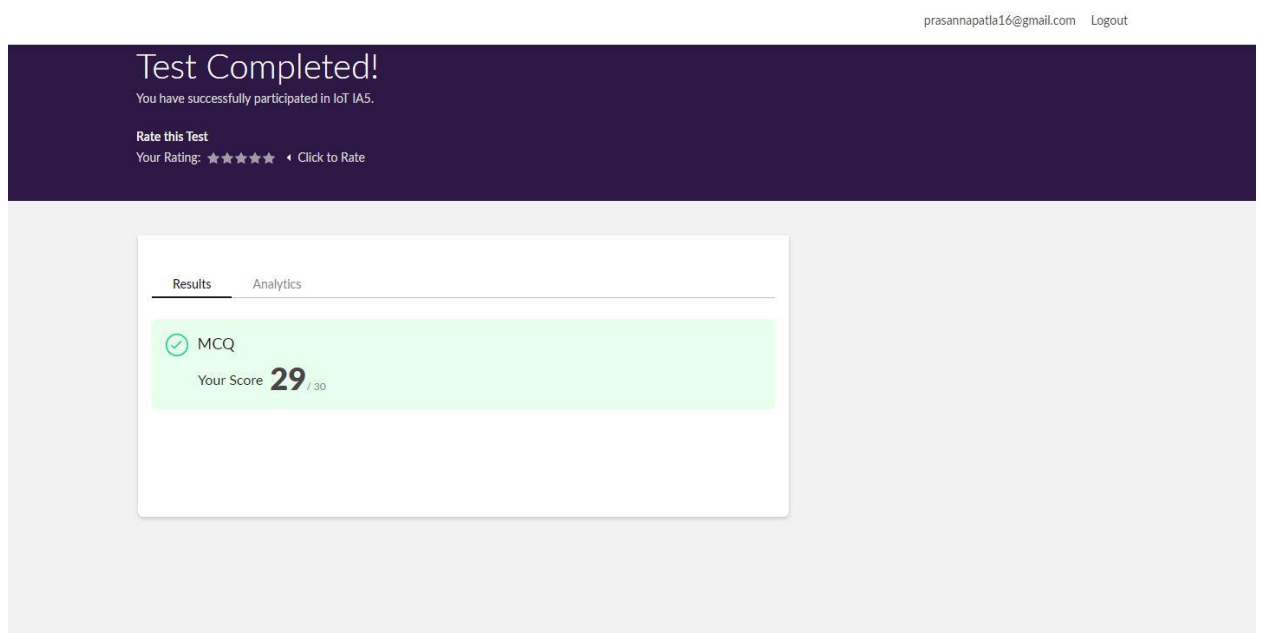
<b>Date:</b>	13-06-2020	<b>Name:</b>	PRASANNA
<b>Sem &amp; Sec</b>	8 <sup>th</sup> ,B	<b>USN:</b>	4AL16CS068
<b>Online Test Summary</b>			
<b>Subject</b>	IOT		
<b>Max. Marks</b>	30	<b>Score</b>	29
<b>Certification Course Summary</b>			
<b>Course</b>	Introduction to Hadoop		
<b>Certificate Provider</b>	Great learner academy	<b>Duration</b>	6 Hrs
<b>Coding Challenges</b>			
<b>Problem Statement:</b> prob1- <i>To display the sum of array</i>			
<b>Status:</b> Solved			
<b>Uploaded the report in Github</b>		Yes	
<b>If yes Repository name</b>		prasanna_p	
<b>Uploaded the report in slack</b>		Yes	

Online Test Details: (Attach the snapshot and briefly write the report for the same)

Certification Course Details: (Attach the snapshot and briefly write the report for the same)

Coding Challenges Details: (Attach the snapshot and briefly write the report for the same)

## 1. Online test details



## 2. Certification Course Details

The screenshot shows the Great Learning website interface. At the top, there's a navigation bar with 'Home', 'Live Sessions', and 'Certificates'. A 'My Courses' button and a user profile icon are on the right. The main content area has a breadcrumb trail: 'Courses / Introduction to Hadoop / Map Reduce Word Count Code'. On the left, a 'Content' sidebar lists various topics: 'Hadoop Ecosystem', 'Map Reduce' (marked with a green check), 'Map Reduce Example', 'Map Reduce Practice Example', 'Map Reduce Programmatic Comparison with Java' (marked with a green check), 'Map Reduce Hands on - Word Count', 'Map Reduce Word Count Code' (highlighted), 'Yarn' (marked with a green check), 'In class Material', and 'Codes &amp; Data Sets'. The main area displays a video player for 'Map Reduce Word Count Code'. The video shows a code editor with Java code for a MapReduce job. The code includes setting input/output formats, configuring the filesystem, adding input paths, and setting output paths. A watermark 'RAGHU RAMAN greatlearning' is visible over the video. The video player controls at the bottom show a progress bar at 0:08 and a volume icon.

## Introduction to Hadoop :

Hadoop is an Apache open source framework written in java that allows distributed processing of large datasets across clusters of computers using simple programming models. The Hadoop framework application works in an environment that provides distributed *storage* and *computation* across clusters of computers. Hadoop is designed to scale up from single server to thousands of machines, each offering local computation and storage.

## How Does Hadoop Work?

It is quite expensive to build bigger servers with heavy configurations that handle large scale processing, but as an alternative, you can tie together many commodity computers with single-CPU, as a single functional distributed system and practically, the clustered machines can read the dataset in parallel and provide a much higher throughput. Moreover, it is cheaper than one

high-end server. So this is the first motivational factor behind using Hadoop that it runs across clustered and low-cost machines.

Hadoop runs code across a cluster of computers. This process includes the following core tasks that Hadoop performs –

- Data is initially divided into directories and files. Files are divided into uniform sized blocks of 128M and 64M (preferably 128M).
- These files are then distributed across various cluster nodes for further processing.
- HDFS, being on top of the local file system, supervises the processing.
- Blocks are replicated for handling hardware failure.
- Checking that the code was executed successfully.
- Performing the sort that takes place between the map and reduce stages.
- Sending the sorted data to a certain computer.
- Writing the debugging logs for each job.

## 2) Coding Challenges:

### 1. *To find sum of given array*

#### **Pgrm1:**

```
def _sum(arr,n):  
  
    # return sum using sum  
    # inbuilt sum() function  
    return(sum(arr))  
  
# driver function  
arr=[]
```

```
# input values to list
arr = [12, 3, 4, 15]

# calculating length of array
n = len(arr)

ans = _sum(arr,n)

# display sum
print ('Sum of the array is ', ans)
```