

## DAILY ONLINE ACTIVITIES SUMMARY

<b>Date:</b>	23-05-2020	<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>	---		
<b>Max. Marks</b>	----	<b>Score</b>	-----
<b>Certification Course Summary</b>			
<b>Course</b>	Introduction to ethical hacking		
<b>Certificate Provider</b>	Great learner academy	<b>Duration</b>	6 Hrs
<b>Coding Challenges</b>			
<b>Problem Statement:</b> prob1- <i>To calculate number of uppercase and lowercase letter in given string</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. Certification Course Details:

### Mobile App pen-testing:

The Mobile Application Penetration Testing Methodology (MAPTM), as described by author Vijay Kumar Velu in his ebook, is the procedure that should be followed while conducting mobile application penetration testing. It is based on application security methodology and shifts the focus of traditional application security, which considers the primary threat as originating from the Internet.

The screenshot displays the 'Introduction to Ethical Hacking' course page on the Great Learning platform. The page is divided into two main sections: 'CONTENT' and 'ASSESSMENTS'. Under the 'CONTENT' tab, there is a list of learning videos. The videos are as follows:

Video Title	Duration	Status
Career and Growth Ladder in Ethical Hacking	18m	Completed (Green Checkmark)
Domains and Process Implementation under Ethical Hacking	54m	Completed (Green Checkmark)
Ethical Hacking in Network Architecture-Demonstration	48m	Completed (Green Checkmark)
Ethical Hacking in Web Applications-Demonstration	50m	Completed (Green Checkmark)
Ethical Hacking on Mobile Platforms-Demonstration	34m	Not Completed (Empty Circle)
What is Ethical Hacking	50m	Not Completed (Empty Circle)

The page also features a 'My Courses' button and a user profile icon in the top right corner. At the bottom right, there is a 'Activate Windows' watermark.

The mobile application penetration testing methodology focuses on client-side security, file system, hardware, and network security. It has been long considered that the end user is in control of the device.

# Stages of the Mobile Application Penetration Testing

## Methodology:

*Discovery* requires the pentester to collect information that is essential in understanding events that lead to the successful exploitation of mobile applications.

*Assessment* or analysis involves the penetration tester going through the mobile application source code and identifying potential entry points and weaknesses that can be exploited.

*Exploitation* involves the penetration tester leveraging the discovered vulnerabilities to take advantage of the mobile application in a manner not intended by the programmer initially did not intend.

*Reporting* is the final stage of the methodology and it involves recording and presenting the discovered issues in a manner that makes sense to management. This is also the stage that differentiates a penetration test from an attack.

- **Open Source Intelligence (OSINT)**—The pentester searches the Internet for information about the application. This might be found on search engines and social networking sites, leaked source code through source code repositories, developer forums, or even on the dark web.
- **Understanding the Platform**—It is important for the penetration tester to understand the mobile application platform, even from an external point of view, to aid in developing a threat model for the application. The pentester takes into account the company behind the app, their business case, and related stakeholders. The internal structures and processes are also taken to account.
- **Client-Side vs Server-Side Scenarios**—The penetration tester needs to be able to understand the type of application (native, hybrid, or web) and to work on the test cases. The application's network interfaces, user data, communication with other

resources, session management, jailbreaking/rooting behavior are all taken into account here.

- **Dynamic Analysis**—The pentester reviews the mobile application as it runs on the device. Reviews done include forensic analysis of the file system, assessment of the network traffic between the application and server and an assessment of the application's inter-process communication (IPC).
- **Reverse Engineering**—This involves converting the compiled applications into human-readable source code. The penetration tester reviews the readable code in order to understand the internal application functionality and search for vulnerabilities. Android application source code may be modified once reversed and recompiled. The following tools can be used while conducting reverse engineering:

The screenshot shows a web interface for a course on Great Learning. The top navigation bar includes the Great Learning logo, 'Home', 'Live Sessions', a 'My Courses' button, and a user profile icon. The breadcrumb trail reads: 'Courses / Introduction to Ethical Hacking / Ethical Hacking on Mobile Platforms-Demonstration'. On the left, a 'Content' sidebar lists various topics under 'Learning Videos', with 'Ethical Hacking on Mobile Platforms-Demonstration' selected. The main content area displays the title 'ADB (Android Debug Bridge)' and a bulleted list of facts about the tool. Below the text is a video player with a progress bar at 0:11. At the bottom, there are 'Previous' and 'Next' buttons, and a Windows activation watermark.

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Content

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

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## ADB (Android Debug Bridge)

- Android Debug Bridge (adb) is a versatile command-line tool that lets you communicate with a device
- It is a client-server program that includes three components:
  - Client: which sends commands
  - Daemon (adb): which runs commands on a device
  - Server: which manages communication between the client and the daemon

0:11 25:50 1x

Activate Windows Go to PC settings to activate Windows.

## Android Debug Bridge:

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- It is a client-server program that includes three components:

- Client which sends commands
- Daemon which runs commands on a device
- Server which manages communication between client and daemon

## 2. Coding challenge:

1. Write a program that accepts a sentence and calculate the number of upper case letters and lower case letters.

Suppose the following input is supplied to the program:

Hello world!

Then, the output should be:

UPPER CASE 1

LOWER CASE 9

Program:

```
s = input()
d={"UPPER CASE":0, "LOWER CASE":0}
for c in s:
    if c.isupper():
        d["UPPER CASE"]+=1
    elif c.islower():
        d["LOWER CASE"]+=1
    else:
        pass
```

```
print "UPPER CASE", d["UPPER CASE"]  
print "LOWER CASE", d["LOWER CASE"]
```