DAILY ONLINE ACTIVITIES SUMMARY

Date:	**21-05-2020**	**Name:**	**PRASANNA**
Sem & Sec	**8th,B**	**USN:**	**4AL16CS068**

Online Test Summary

Subject	**SMS**		
Max. Marks	**60**	**Score**	**45**

Certification Course Summary

Course	**Introduction to ethical hacking**		
Certificate Provider	**Great learner academy**	**Duration**	**6 Hrs**

Coding Challenges

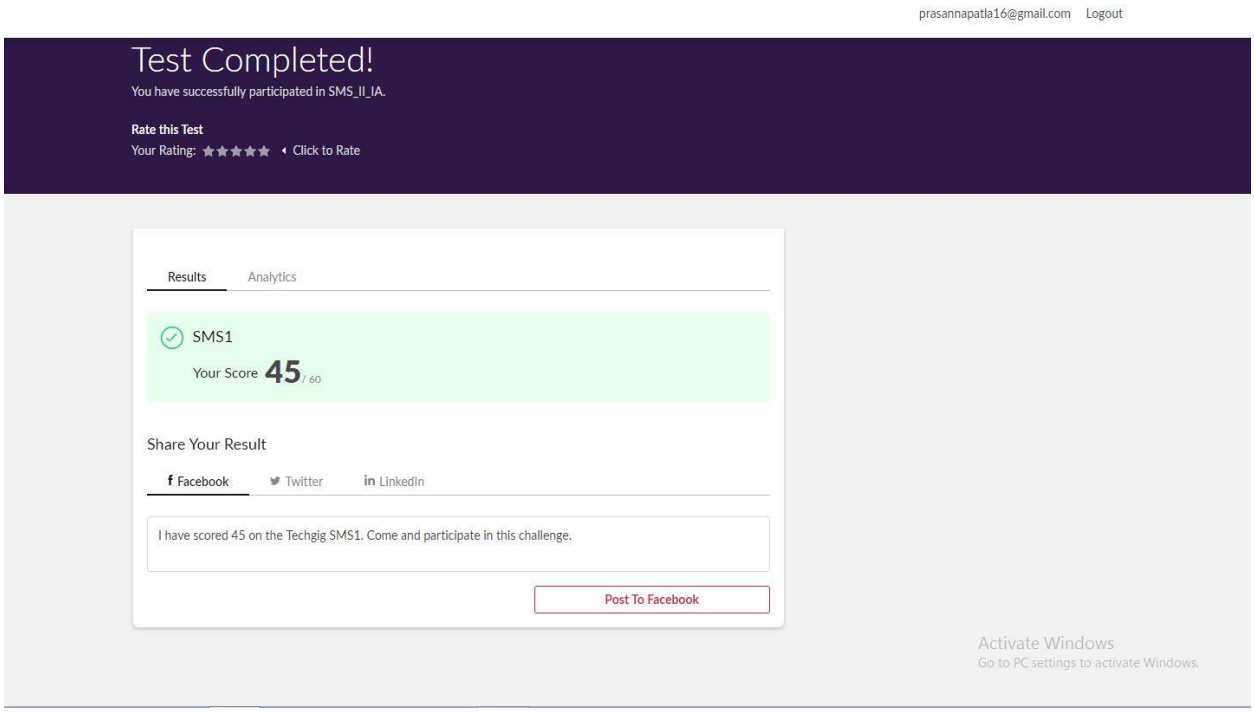
Problem Statement: prob1- Given an array ,rotate the array to the right by k steps , where k is non-negative	
Status: Solved	
Uploaded the report in Github	**Yes**
If yes Repository name	**prasanna_p**
Uploaded the report in slack	**Yes**

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)

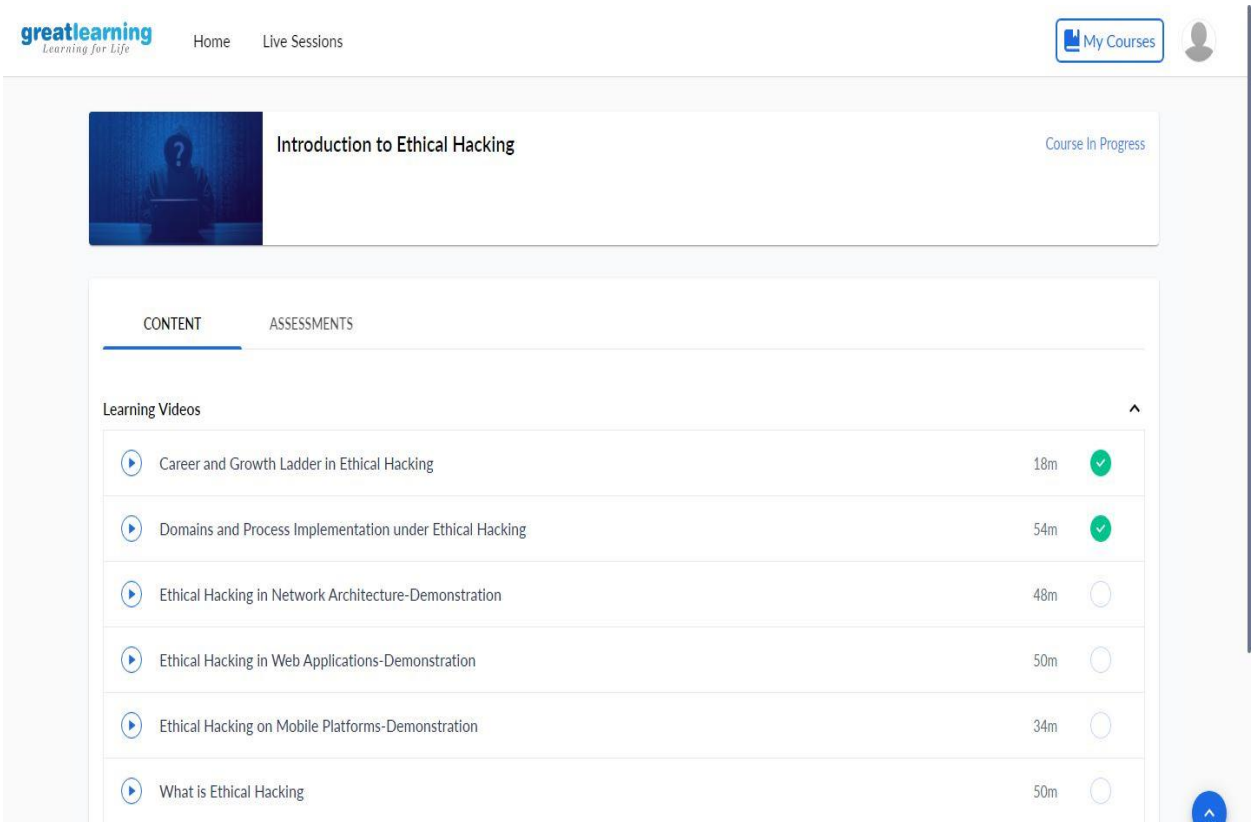
Coding Challenges Details: (Attach the snapshot and briefly write the report for the same)

1) Online Test Details:



2) Certification Course Details:

The purpose of ethical hacking is to evaluate the security of and identify vulnerabilities in systems, networks or system infrastructure. It includes finding and attempting to exploit any vulnerabilities to determine whether unauthorized access or other malicious activities are possible. In networking, devices on the same network communicate with each other using packets. If you send a video, login a website, sending chat messages sending email, all the data is send as packets.



TCP 3-Way Handshake Process

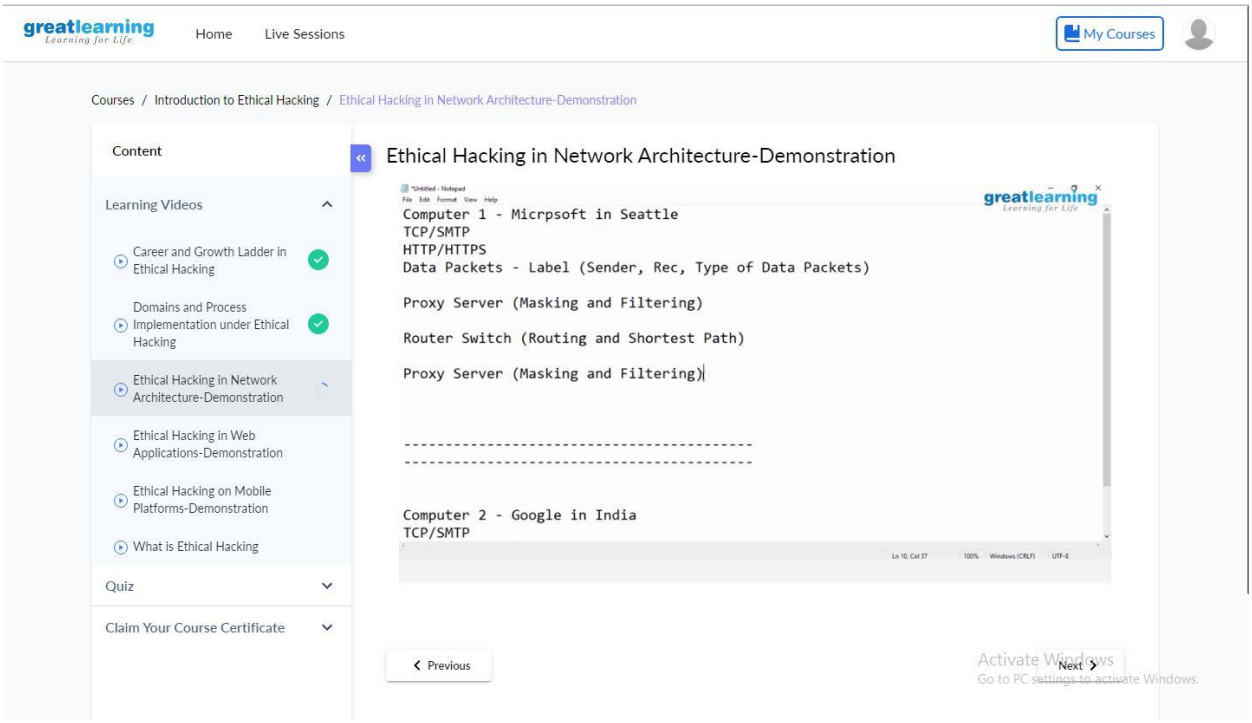
This could also be seen as a way of how TCP connection is established. Before getting into the details, let us look at some basics. TCP stands for **Transmission Control Protocol** which indicates that it does something to control the transmission of the data in a reliable way.

The process of communication between devices over the internet happens according to the current **TCP/IP** suite model(stripped out version of OSI reference model). The Application layer is a top pile of stack of TCP/IP model from where network referenced application like web browser on the client side establish connection with the server.

From the application layer,the information is transferred to the transport layer where our topic comes into picture. The two important protocols of this layer are – TCP, **UDP(User Datagram**

Protocol) out of which TCP is prevalent(since it provides reliability for the connection established). However you can find application of UDP in querying the DNS server to get the binary equivalent of the Domain Name used for the website.

The Protocol Data Unit(PDU) of the transport layer is called segment. Now a device using PAR resend the data unit until it receives an acknowledgement. If the data unit received at the receiver's end is damaged(It checks the data with checksum functionality of the transport layer that is used for Error Detection), then receiver discards the segment. So the sender has to resend the data unit for which positive acknowledgement is not received.



Netdiscover :

The netdiscover is a tool which is used to gather all the important information about the network. It gathers information about the connected clients and the router. As for the connected clients, we'll be able to know their IP, MAC address and the operating system, as well as the ports that they have open in their devices. As for the router, it will help us to know the manufacturer of the

router. Then we'll be able to look for vulnerabilities that we can use against the clients or against the router if we are trying to hack them.

The **netdiscover** is a quicker and simplest program to use, but it doesn't show very detailed information about the target clients. It'll only show us their IP address, their MAC address, and sometimes the hardware manufacturer. We're going to use it by typing netdiscover, then we are going to use -r, and then we are going to specify the range, which can be any range we want. Looking at the IP (which is 10.0.2.1) tells us which network we are in. We want to discover all the clients that are in this network, so we're going to try and see if there is a device in 10.0.2.1.

Stealth Scan :

Stealth Scan - Computer Definition. Mechanism to perform reconnaissance on a network while remaining undetected. Uses SYN scan, FIN scan, or other techniques to prevent logging of a scan. See Also: Synchronize Packet (SYN); Synchronize Packet Flood (SYN Flood). Internet Security Systems.

T o use Metasploit to perform a TCP stealth scan, you will need to have a remote system that is running accessible network services over TCP. In the examples provided, an instance of Metasploitable2 is used to perform this task ■

3) Coding Challenges:

Given an array, rotate the array to the right by k steps, where k is non-negative.

Example 1:
Input1: [1, 2, 3, 4, 5, 6, 7] and k = 3
Output1: [5, 6, 7, 1, 2, 3, 4]
Explanation:
rotate 1 steps to the right: [7, 1, 2, 3, 4, 5, 6]

rotate 2 steps to the right: [6, 7, 1, 2, 3, 4, 5]
rotate 3 steps to the right: [5, 6, 7, 1, 2, 3, 4]

Example 2:
Input2: [-1, -100, 3, 99] and k = 2
Output2: [3, 99, -1, -100]
Explanation:
rotate 1 steps to the right: [99, -1, -100 3]
rotate 2 steps to the right: [3, 99, -1, -100]

Program :

```
def right_rotate(l,n):
        result=[]
         for i in range(len(l)-n,len(l)):
                result.append(l[i])
         for j in range(0,len(l)-n):
                result.append(l[j])
        return result
k=int(input('enter a step to right rotate:'))
l=[1,2,3,4,5,6]
print(right_rotate(l,k))
```