DAILY ONLINE ACTIVITIES SUMMARY

Date:	**19-5-2020**	**Name:**	**Nagashree D**
Sem & Sec	**8th ,B**	**USN:**	**4AL16CS**

Online Test Summary			
Subject	**Big Data Analytics**		
Max. Marks	**30**	**Score**	**15**

Certification Course Summary			
Course	**Introduction to ethical hacking**		
Certificate Provider	**Great Learner Acdemy**	**Duration**	**6Hrs**

Coding Challenges
Problem Statement:prob 1:to add some letters for a given word or letter then find the shortest palindrome possible.   **Prob2:To check wether the given linked list is palindrome or not**
Status:Solved

Uploaded the report in Github	**Yes**
If yes Repository name	**Nagashreed**
Uploaded the report in slack	**Yes**

Online Test Details:

Challenge Over

by **TechGig**

Big Data Analytics

IA Test One

Your Highest Score 15   Max Score 30

Question Summary The objective of this round is to screen students on the basis of their domain proficiency

Start Test

Details   Winners   FAQs   My Submission

BDA first IA

Summary

Skills   Big Data Hadoop

Ends On   19 May

Certification Course Details:

Ethical Hacking Career: Job Profiles

After attaining the much coveted CEH v10,an ethical hacker can try for the following roles:

o Information Security Analyst

o Security Analyst o Certified Ethical Hacker (CEH)

o Ethical Hacker o Security Consultant, (Computing / Networking / Information Technology)

o Information Security Manager o Penetration Tester

An ethical hacker finds a job in any company which has an internet facing side or anything to do with the web. These include college institutions like MIT and even private companies ranging from logistic services to data warehousing companies. Apart from these, you also get a chance to work for the military and top-secret intelligence gathering agencies like the CIA, Mossad, NSA.

Ethical Hacker Skill Set

A person with an ethical hacking career is expected to be proficient in database handling, networking, and operating systems and also have excellent soft skills as they need to communicate problems regarding security to the rest of the organization. Other than these generalized skillsets, an ethical hacker also have a good grasp on the following skills:

☐ Network traffic sniffing ☐ Orchestrate various network attacks ☐ Exploit buffer overflow vulnerabilities ☐ SQL injection ☐ Password guessing and cracking ☐ Session hijacking and spoofing ☐ DNS spoofing

Coding Challenges:

1. We have a Letter or a word then we need add some letters to it and need to find out shortest palindrome example we take "S": S will be the shortest palindrome string. If we take "xyz": zyxyz will be the shortest palindrome string So we need to add some characters to the given string or character and find out what will be the shortest palindrome string by using simple java program.

2. Write a simple code to identify given linked list is palindrome or not by using stack. First take a Stack. Traverse through each node of the linked list and push each node value to Stack. Once the traversal & copying is done, iterate through linked list from head node again. In each iteration, pop one stack element and compare with node value in respective iteration. It is expected to match stack popped value with node value. In case of all matches, its a palindrome. Any one element mismatch makes it not a palindrome.

Prgm 1

```
package shortestpalindromeexample.java;
import java.util.Scanner;

public class ShortestPalindromeDemo {

public static String shortestPalindrome(String str) {

int x=0;
int y=str.length()-1;

while(y>=0){
if(str.charAt(x)==str.charAt(y)){
x++;
}
y--;
}

if(x==str.length())
return str;

String suffix = str.substring(x);
String prefix = new StringBuilder(suffix).reverse().toString();
String mid = shortestPalindrome(str.substring(0, x));

return prefix+mid+suffix;
}
```

```java
public static void main(String[] args) {

Scanner in = new Scanner(System.in);

System.out.println("Enter a String to find out shortest palindrome");

String str=in.nextLine();

System.out.println("Shortest palindrome of "+str+" is "+shortestPalindrome(str));

}
```

Prgm 2

```java
import java.util.Stack;

class Node {
int data;
Node next;

Node(int i)
{
this.data = i;
this.next = null;
}
};

class Main
{
// Function to determine if a given linked list is palindrome or not
public static boolean isPalindrome(Node head)
{
// construct an empty stack
Stack s = new Stack<>();

// push all elements of the linked list into the stack
Node node = head;
while (node != null) {
s.push(node.data);
node = node.next;
}

// traverse the linked list again
node = head;
while (node != null)
{
```

```java
// pop the top element from the stack
int top = s.pop();

// compare the popped element with current node's data
// return false if mismatch happens
if (top != node.data) {
return false;
}

// advance to the next node
node = node.next;
}

// we reach here only when the linked list is palindrome
return true;
}

public static void main(String[] args)
{
Node head = new Node(1);
head.next = new Node(2);
head.next.next = new Node(3);
head.next.next.next = new Node(2);
head.next.next.next.next = new Node(1);

if (isPalindrome(head)) {
System.out.print("Linked List is a palindrome.");
} else {
System.out.print("Linked List is not a palindrome.");
}
}
}
```