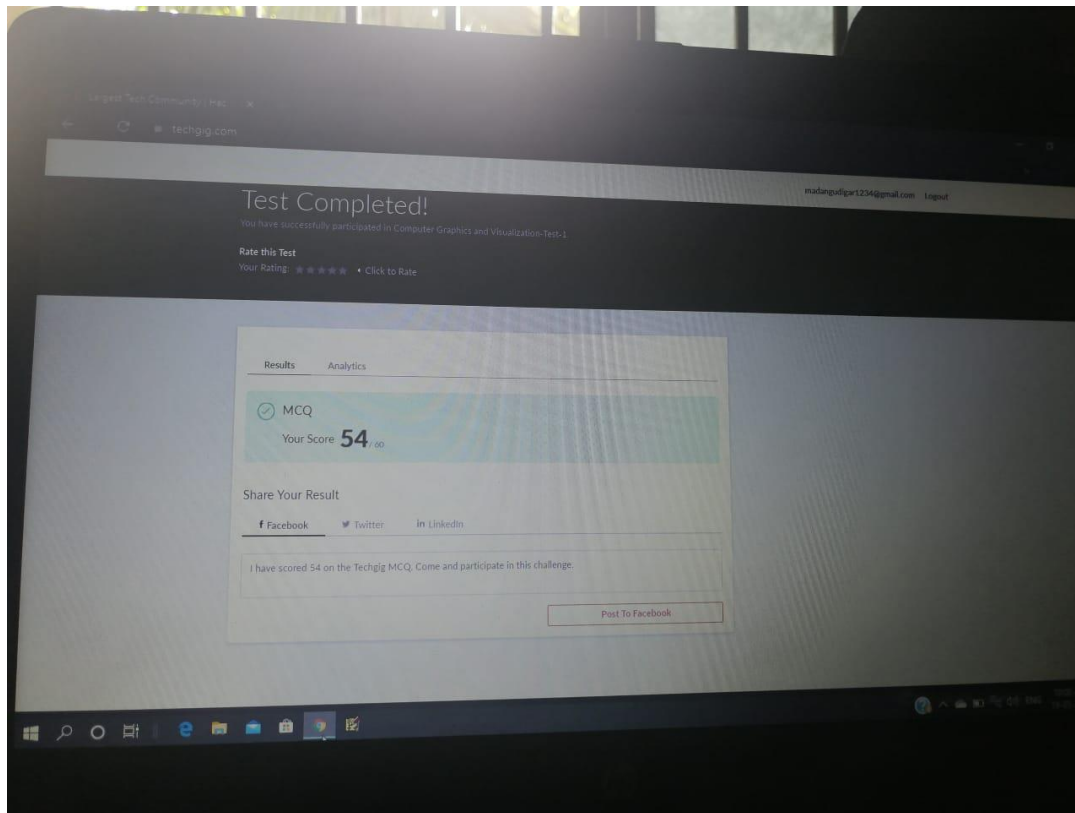


## DAILY ONLINE ACTIVITIES SUMMARY

Date:	19-05-2020	Name:	Madan G Gudigar
Sem & Sec	VI A	USN:	4AL17CS048
<b>Online Test Summary</b>			
Subject	CGV IA Test		
Max. Marks	60	Score	54
<b>Certification Course Summary</b>			
Course	Web Development with Python and Javascript		
Certificate Provider	Harvard University	Duration	12 weeks
<b>Coding Challenges</b>			
<b>Problem Statement:</b>  1. We have a Letter or a word then we need add some letters to it and need to find out shortest palindrome  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.			
<b>Status:Completed</b>			
Uploaded the report in Github		Yes	
If yes Repository name		<a href="https://github.com/Madangudigar/online_coding">https://github.com/Madangudigar/online_coding</a>	
Uploaded the report in slack		Yes	

## Online Test Details

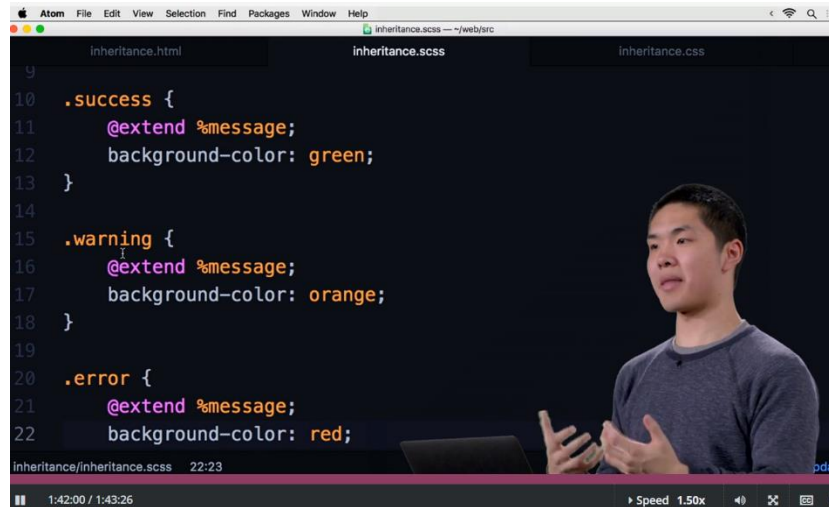
### **CGV TEST Details:**



## Online Certification Details

### Lesson-2

- HTML
- CSS



## Coding Challenge Details

1. We have a Letter or a word then we need add some letters to it and need to find out shortest palindrome

For 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.

```

1  import java.util.Scanner;
2
3  public class ShortestPalindromeDemo {
4
5      public static String shortestPalindrome(String str)
6      {
7          int x=0;
8          int y=str.length()-1;
9
10         while(y>=0){
11             if(str.charAt(x)==str.charAt(y)){
12                 x++;
13             }
14             y--;
15         }
16
17         if(x==str.length())
18             return str;
19
20         String suffix = str.substring(x);
21         String prefix = new StringBuilder(suffix).reverse().toString();
22         String mid = shortestPalindrome(str.substring(0, x));
23
24         return prefix+mid+suffix;
25     }
26
27     public static void main(String[] args)
28     {
29         Scanner in = new Scanner(System.in);
30
31         System.out.println("Enter a String to find out shortest palindrome");
32
33         String str=in.nextLine();
34
35         System.out.println("Shortest palindrome of "+str+" is "+shortestPalindrome(str));
36     }
37 }

```

```

X Terminal
Enter a String to find out shortest palindrom
pubg is a good game
Shortest palindrome of pubg is a good game is
emag doog a si gbupubg is a good game
Process finished.
```

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.

```

1 import java.util.Stack;
2
3 // Data Structure to store a linked list node
4 class Node {
5     int data;
6     Node next;
7 }
8 Node(int i)
9 {
10     this.data = i;
11     this.next = null;
12 }
13
14
15 class Main
16 {
17     // Function to determine if a given linked list is
18     public static boolean isPalindrome(Node head)
19     {
20         // construct an empty stack
21         Stack<Integer> s = new Stack<>();
22
23         // push all elements of the linked list into the stack
24         Node node = head;
25         while (node != null) {
26             s.push(node.data);
27             node = node.next;
28         }
29
30         // pop elements from the stack and compare with the
31         // data of the linked list
32         Node temp = head;
33         while (temp != null) {
34             if (temp.data != s.pop())
35                 return false;
36             temp = temp.next;
37         }
38         return true;
39     }
40 }
41
42 // Driver Code
43 public static void main (String[] args) {
44     Node head = new Node(1);
45     head.next = new Node(2);
46     head.next.next = new Node(3);
47     head.next.next.next = new Node(2);
48     head.next.next.next.next = new Node(1);
49
50     Main obj = new Main();
51     if (obj.isPalindrome(head))
52         System.out.println("Linked List is a palindrome.");
53     else
54         System.out.println("Linked List is not a palindrome.");
55 }
56
57 X Terminal
Linked List is a palindrome.
Process finished.
```