DAILY ONLINE ACTIVITIES SUMMARY

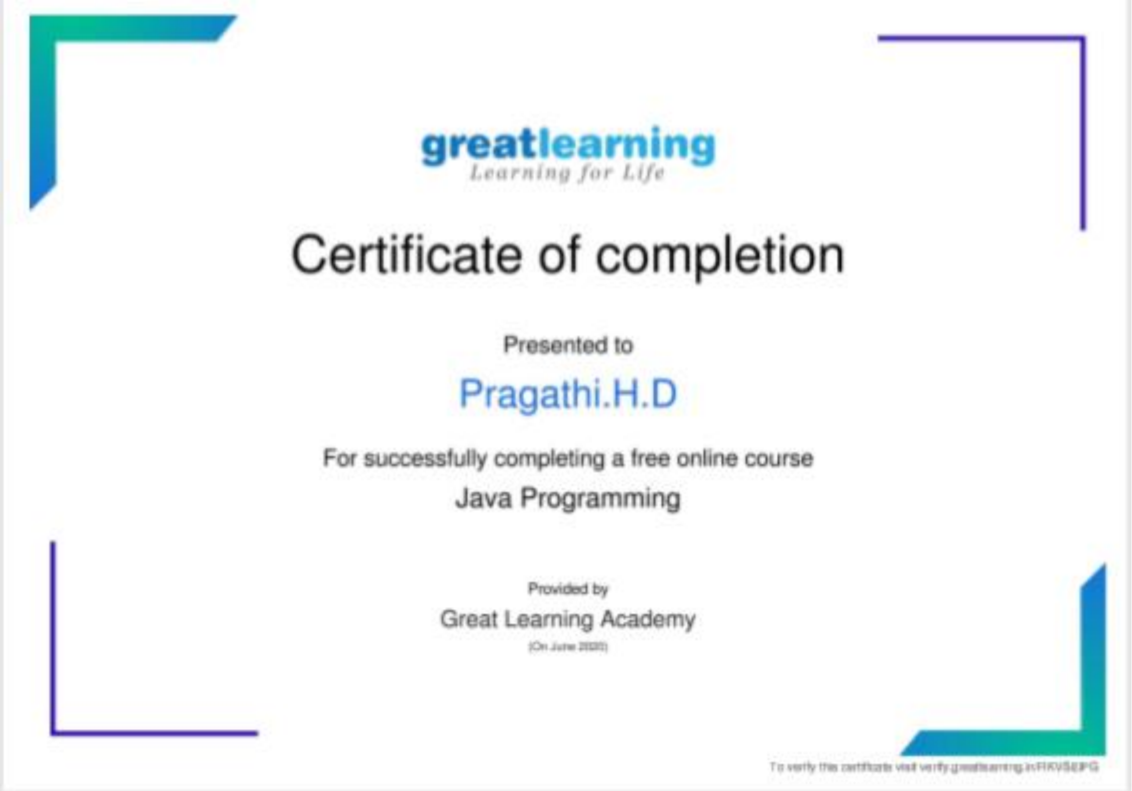
Date:	**03-07-20**	**Name:**	**Pragathi h d**
Sem & Sec	**8 sem B sec**	**USN:**	**4AL16CS066**
Online Test Summary			
Subject			
Max. Marks		**Score**	
Certification Course Summary			
Course	**Java programming**		
Certificate Provider	**Learning academy**	**Duration**	**5.00hrs**
Coding Challenges			
Problem Statement:FINDING SHORTEST PALINDROME			
Status: Solved			
Uploaded the report in Github	**Uploaded**		
If yes Repository name	**Pragathijain**		
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)

COURSE



greatlearning
Learning for Life

Certificate of completion

Presented to

Pragathi.H.D

For successfully completing a free online course

Java Programming

Provided by

Great Learning Academy

(On June 2020)

To verify this certificate visit verify.greatlearning.in/FIKVSEIPG

Coding

```
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;
}

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));

}
```

### 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.###

```
import java.util.Stack;
class Node {
int data;
Node next;

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

class Main
{
public static boolean isPalindrome(Node
head)
{

Stack s = new Stack<>();

        Node node = head;
        while (node != null) {
                s.push(node.data);
                node = node.next;
        }

        node = head;
        while (node != null)
        {

                int top = s.pop();

                if (top != node.data) {
                        return false;
                }



                node = node.next;
        }
        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.");
        }
}
```