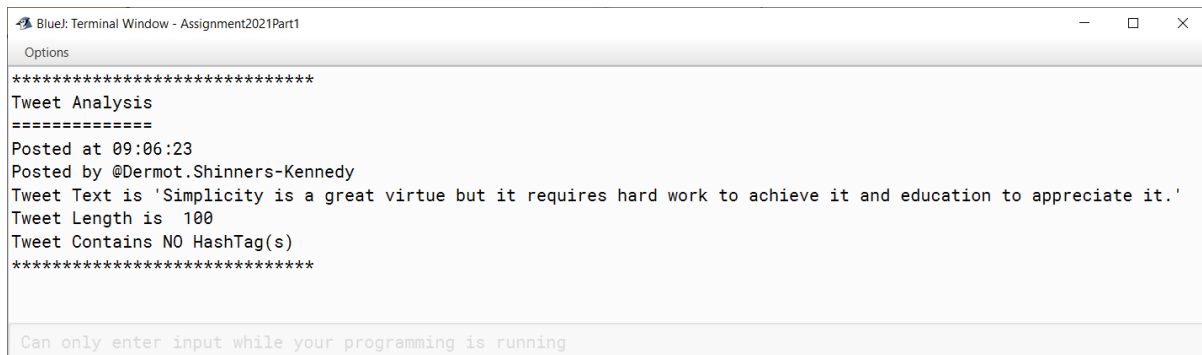


CS4141 Introduction to Programming Assignment

Part 1 Specification

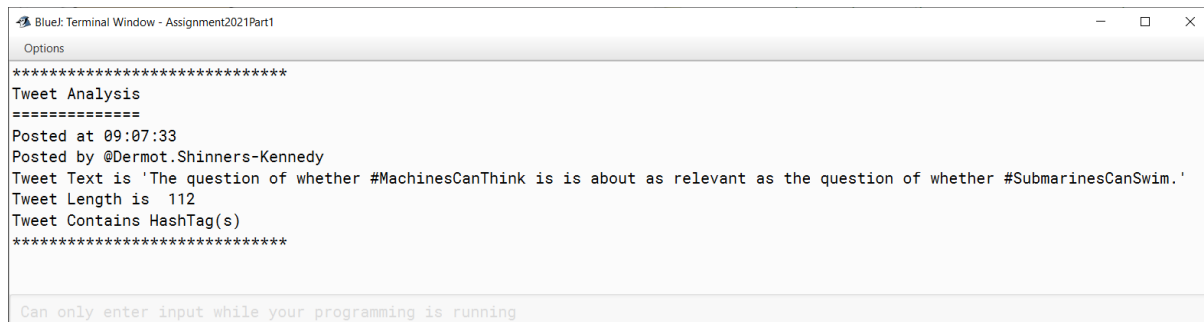
Write a Java program that displays a “Tweet Analysis” of the text posted in a Tweet. The required layout for the analysis is shown in the following screen captures.

The first analysis example is for a Tweet that contains the text “*Simplicity is a great virtue but it requires hard work to achieve it and education to appreciate it.*”



```
Blue: Terminal Window - Assignment2021Part1
Options
*****
Tweet Analysis
=====
Posted at 09:06:23
Posted by @Dermot.Shinners-Kennedy
Tweet Text is 'Simplicity is a great virtue but it requires hard work to achieve it and education to appreciate it.'
Tweet Length is 100
Tweet Contains NO HashTag(s)
*****
Can only enter input while your programming is running
```

The second analysis example is for a Tweet that contains the text “*The question of whether #MachinesCanThink is is about as relevant as the question of whether #SubmarinesCanSwim.*”



```
Blue: Terminal Window - Assignment2021Part1
Options
*****
Tweet Analysis
=====
Posted at 09:07:33
Posted by @Dermot.Shinners-Kennedy
Tweet Text is 'The question of whether #MachinesCanThink is is about as relevant as the question of whether #SubmarinesCanSwim.'
Tweet Length is 112
Tweet Contains HashTag(s)
*****
Can only enter input while your programming is running
```

The “Tweet Analysis” layout produced by your code must adhere to the following specifications.

- The first line of output should contain 30 ‘*’ (asterisk) characters.
- The second line should contain the text “Tweet Analysis”
- The third line should contain 14 ‘=’ (equal sign) characters.
- The fourth line should contain the text “Posted at ” followed by the current time provided by the system clock. The time should be displayed in the format “HH:MM:SS” with leading zeroes included where the hour or

minute or second is less than 10. You may find *Slide 29 in Lecture 3* helpful for determining the current time. You may find *Slides 3-6 in Lecture 6* helpful for formatting the hour, minute and second values.

- e. The fifth line should contain the text "Posted by " followed by the username of the person currently logged in to the system. You may find *Slides 26 and 27 in Lecture 1* helpful for determining who is currently logged in.
- f. The sixth line should be contain the text "Tweet Text is " followed by the actual text of the Tweet enclosed " (single quote) characters .
- g. The seventh line should be contain the text "Tweet Length is " followed by the length of text contained in the Tweet. You may find the material covered in *Lecture 7* helpful for this requirement.
- h. The contents of the eighth line is dependent on the Tweet Text. If the text contains no '#' (hash) symbols then the output should be "Tweet Contains NO HashTag(s)". If the text contains at least one '#' (hash) symbol then the output should be "Tweet Contains HashTag(s)". You may find the material covered in *Lectures 4 and 7* helpful for this requirement.
- i. The last line of output should contain 30 '*' (asterisk) characters.

To test your solution, you should create a Java class called `Assignment2021Part1.java` similar to the following skeletal example. You should test your solution by altering the Tweet text and checking that the analysis produced by the code is correct.

```
public class Assignment2021Part1 {  
    public Assignment2021Part1() {  
  
        String tweet;  
  
        tweet = "Simplicity is a great virtue " +  
                "but it requires hard work to achieve it " +  
                "and education to appreciate it.";   
  
        //tweet = "The question of whether #MachinesCanThink " +  
        //        "is about as relevant as the question " +  
        //        "of whether #SubmarinesCanSwim.";   
  
        // YOUR code for outputting the analysis of the Tweet  
        // should be HERE.
```

```
}  
  
}
```

Submission Requirements

Your solution to the assignment should be submitted on Sulis on or before Friday 16h00 on 22nd October 2021.

You should submit ONE file called Assignment2021Part1.java. In the file you should include prominent comments that contain your ID number and your Name. Sulis will accept any filenames you use but it helps us if you adhere to these conventions.

This part of the assignment is worth 15% of the total of 100%.