

## COMP1039 – PGP - Java

### Coursework 1 (10 marks)

The following files are all provided, they must be downloaded from moodle:

Comp1039\_java.pdf // this file, with version control  
String (Java Platform SE 8 ).pdf //java String api  
Test.txt // file to be read in and analysed

Write java code that performs the following tasks:

1. Using the supplied text file 'Test.txt' output to screen the **case insensitive** word that appears most frequently and the number of occurrences of this word.

So if we used your code on "Drive Drive drive drive on the road road road" we would get the word 'drive' and number '4' output to screen. Should it be a tie between two or more words, the word that appears first should be output. [3 marks]

2. Counts and outputs to screen all the **case sensitive** words that appear only once.

So if we used your code on "Drive Drive drive drive on the road road road" we would get the words 'on the' [3 marks]

Please note that I will be using a different Test.txt file but it will be called Test.txt and will be placed in the same directory as your files. Full marks will be given if your code works, if it doesn't work correctly marks may be given at the markers discretion for correct aspects of the code

If your code works for both tasks additional marks will be awarded for the following features:

- a. Implement some form exception handling (comment where this occurs) [1 mark]
- b. Implement some form of polymorphism (comment where this occurs) [1 mark]
- c. Make use of at least one interface (comment where this occurs) [1 mark]
- d. Make use of at least one inner class (comment where this occurs) [1 mark]

Submit all your files including AssessedCW1.java to Moodle as a .zip file. After unzipping this code it will be tested by typing:

```
Javac AssessedCW1.java
```

```
Java AssessedCW1
```

**Deadline is 4pm Friday the 3<sup>rd</sup> of April**  
**Any Late Submission will receive 0 marks**