

## Assignment 1 Testing

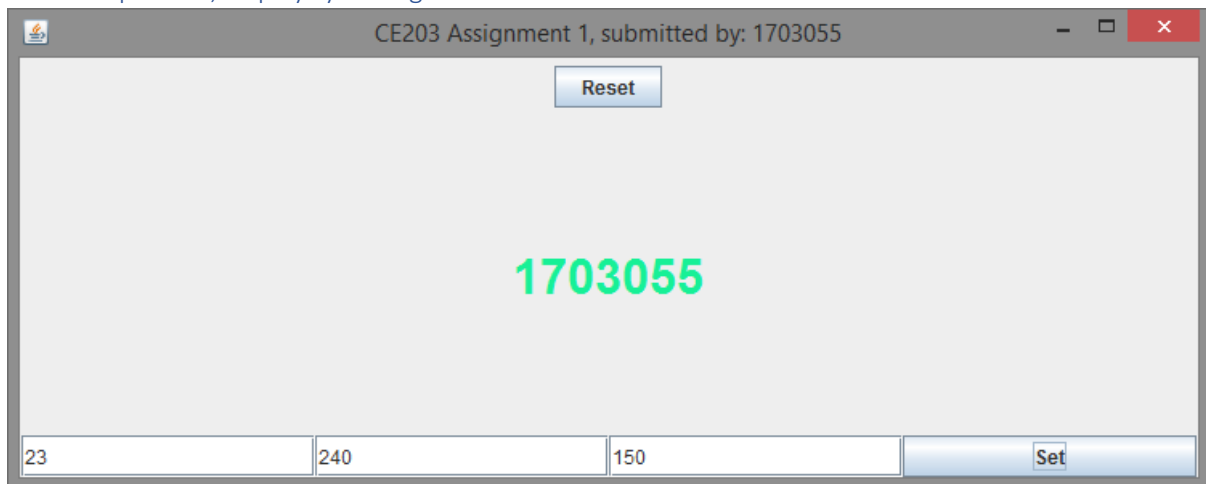
Reg Number: 1703055

The following document contains demonstrations and tests to show correct response of the GUI to each user input / button press event. With the following labelled screen shots I will show how my submission meets the assignment criteria.

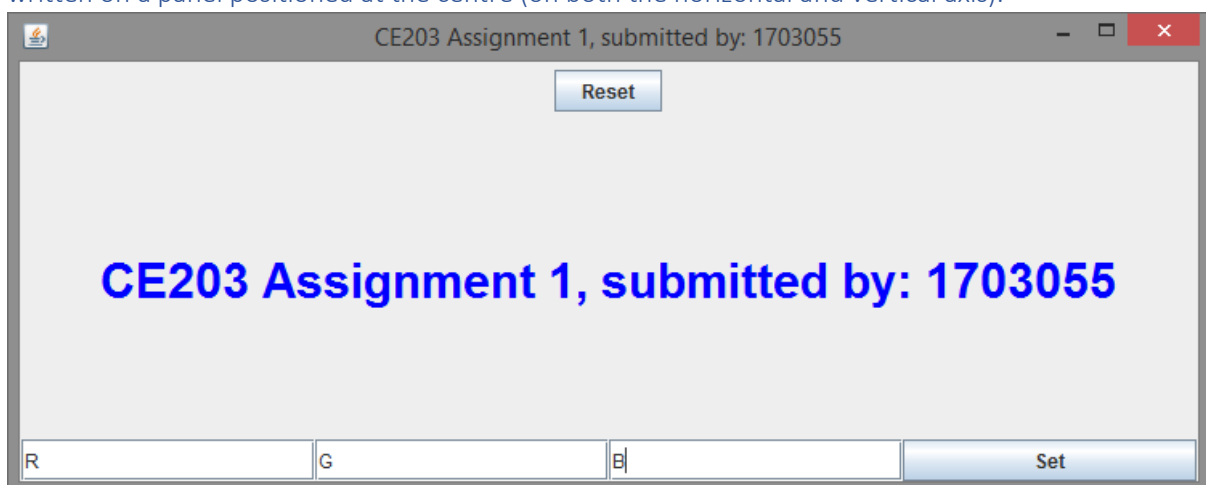
### Exercise 1

“The colour class has a constructor with 3 arguments, allowing the user to create a Colour object by providing RGB values”

“a frame-based application that allows the user to specify RGB values in three text fields, and, when a button is pressed, displays your registration number in the chosen colour”

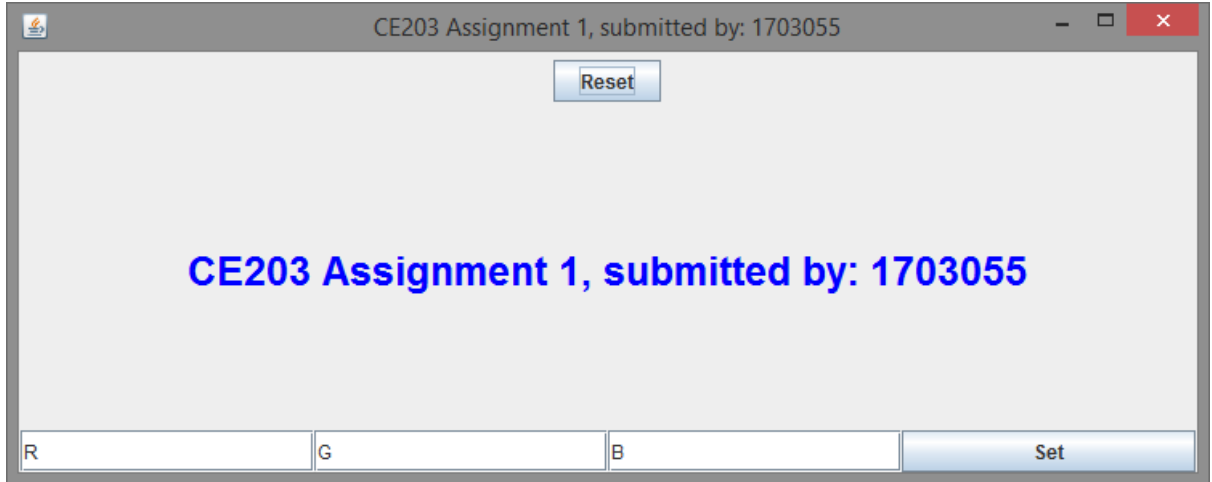


“The button and the input fields should be placed at the bottom of the frame, and the text should be written on a panel positioned at the centre (on both the horizontal and vertical axis).”



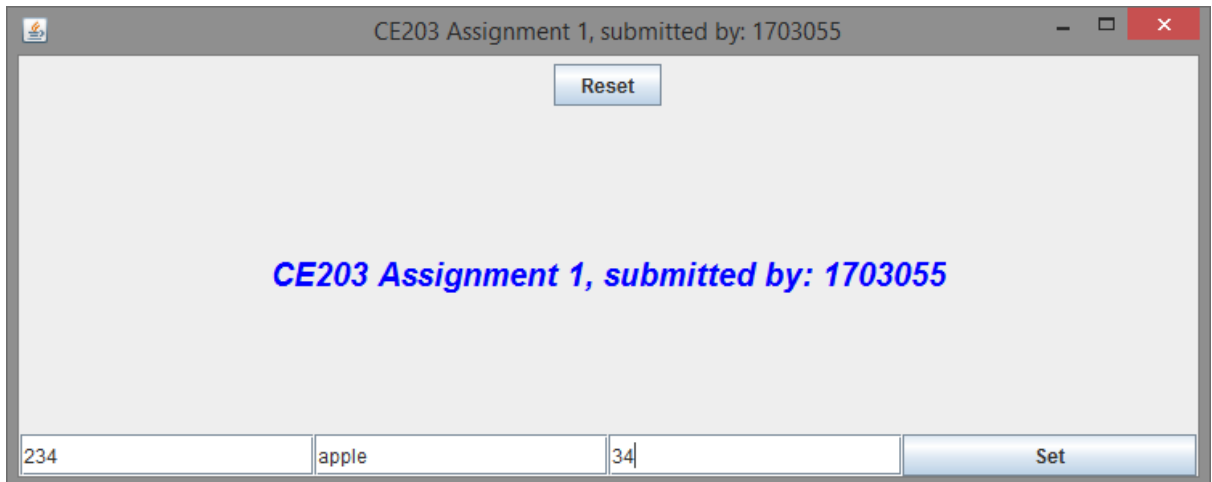
“The program should contain the following features:”

- a) The application should initially display the welcome message (in blue) on the centre panel



The screenshot shows a window titled "CE203 Assignment 1, submitted by: 1703055". At the top center is a "Reset" button. In the center of the window, the text "CE203 Assignment 1, submitted by: 1703055" is displayed in blue. At the bottom, there are three text input fields labeled "R", "G", and "B", followed by a "Set" button.

- b) If, when the button is pressed, the content of any of the text fields is not an integer, the invalid field(s) should be cleared and an appropriate message should appear on the centre panel; text fields containing integers should, however, never be cleared.



The screenshot shows the same window as before, but the "R" field contains "234", the "G" field contains "apple", and the "B" field contains "34". The "Set" button is visible at the bottom right.

When 'Set' button is pressed with incorrect inputs in field



The screenshot shows the window after pressing the "Set" button with invalid input. The "G" field is now empty. The center of the window displays the message "Invalid input in colour field(s)! Please try again below!" in red. The "R" field still contains "234" and the "B" field still contains "34". The "Set" button is now disabled.

- c) If any of the text fields contain a value less than 0, the value 200 should be used in its place when generating the colour – the displayed value in the text field should also be changed to 200

CE203 Assignment 1, submitted by: 1703055

Reset

**CE203 Assignment 1, submitted by: 1703055**

-80 40 180 Set

Input less than 0

When 'Set' button is pressed with an negative input in field

CE203 Assignment 1, submitted by: 1703055

Reset

**1703055**

200 40 180 Set

c) (Continued) If any of the fields contains a number greater than 255, the value 255 should be used and displayed.

CE203 Assignment 1, submitted by: 1703055

Reset

**CE203 Assignment 1, submitted by: 1703055**

24 400 30 Set

Input greater than 255

When 'Set' button is pressed with very large input in field

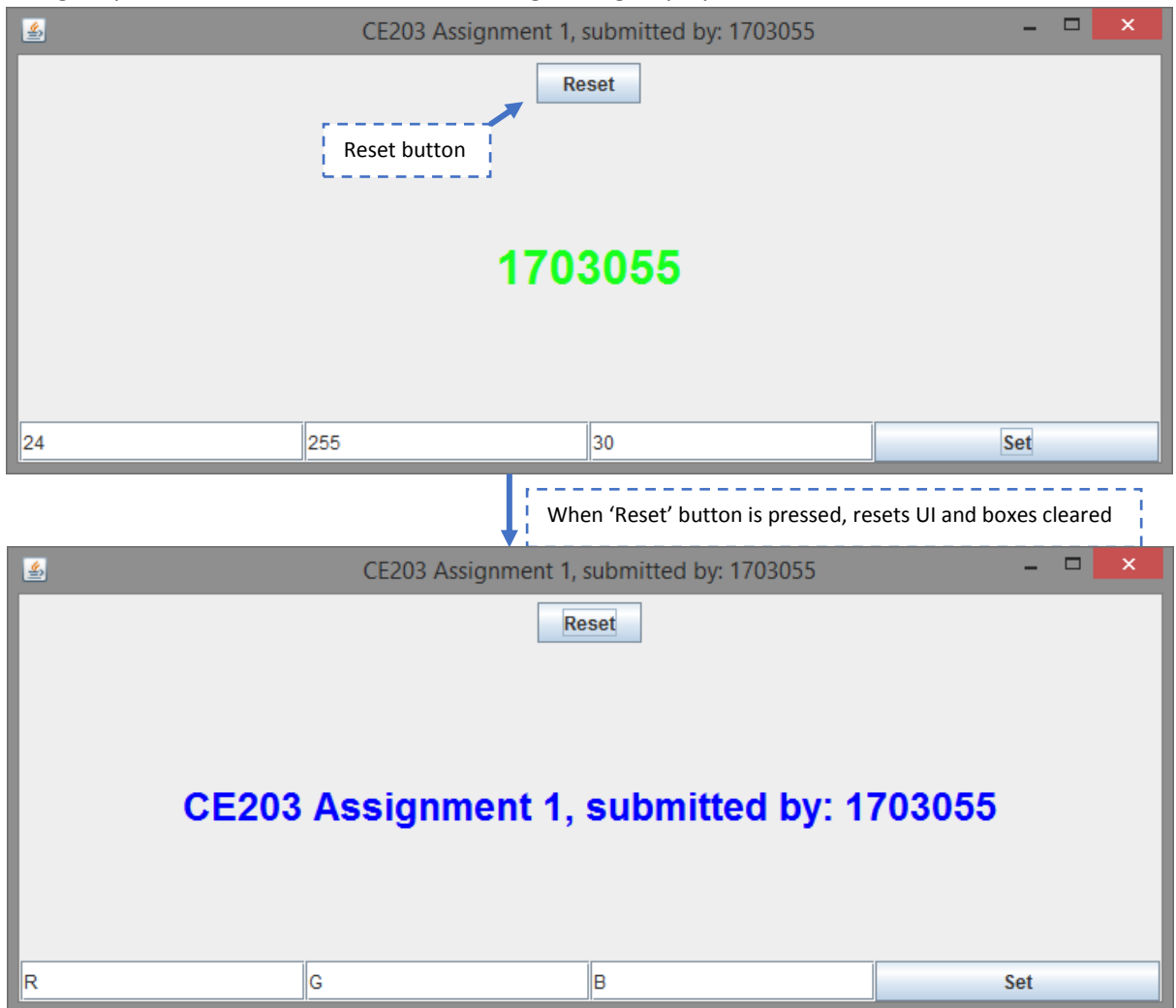
CE203 Assignment 1, submitted by: 1703055

Reset

**1703055**

24 255 30 Set

- d) a “Reset” button at the top of the application which, if pressed, will result in all text fields being emptied and the initial welcome message being displayed.

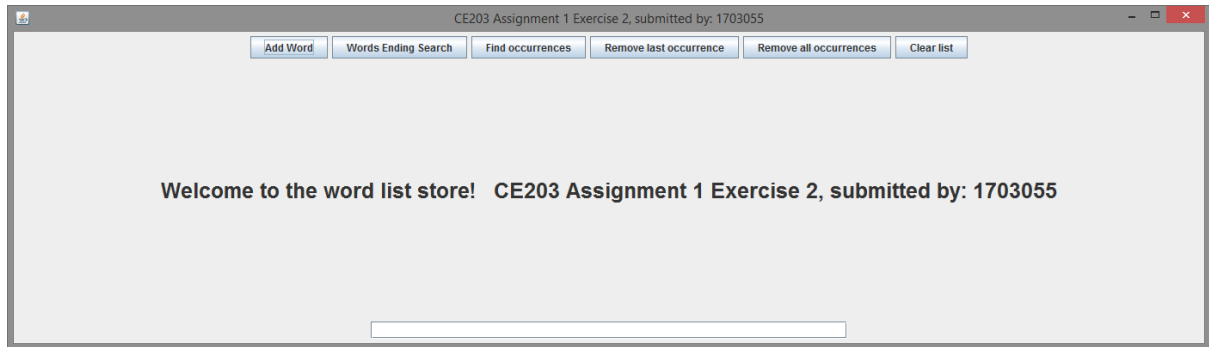


- e) Any possible exceptions should be captured by the program.  
All possible errors, exceptions or otherwise are handled by the program. For example, with incorrect inputs the following message is shown.



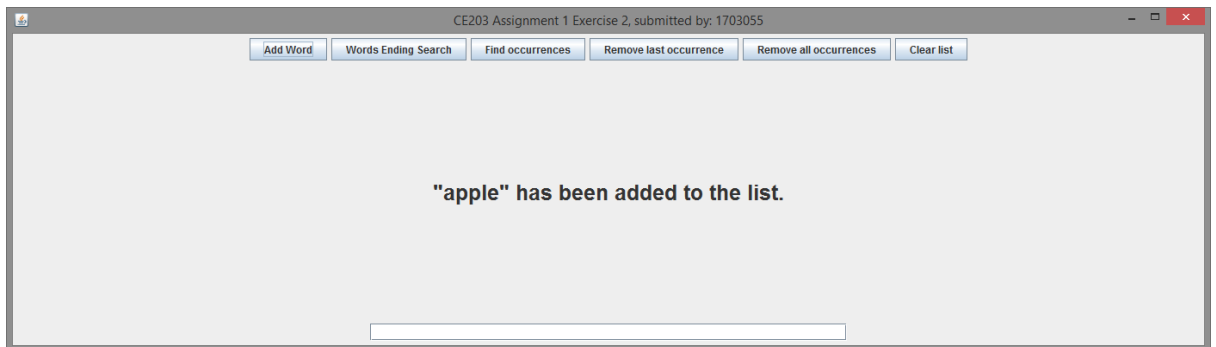
## Exercise 2

“The layout should be such that any buttons will be displayed at the top of the panel, user input is provided in a text field at the bottom and any system output will be displayed in the centre”

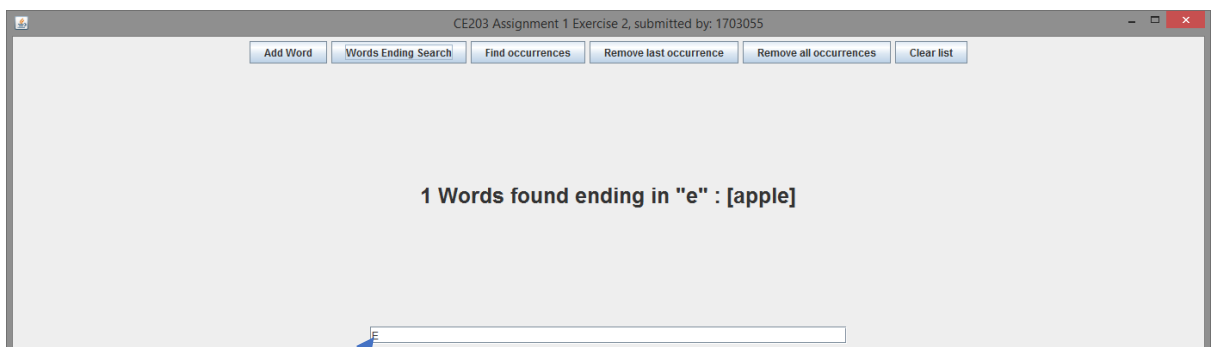
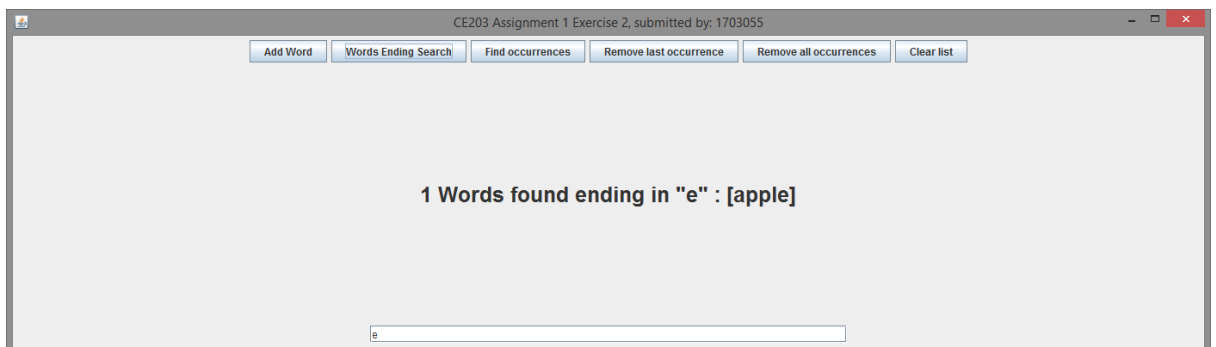


“The application should provide features and corresponding buttons that allow the user to”

- add a word to the list (the word to be added is supplied in a text field at the bottom of the application).

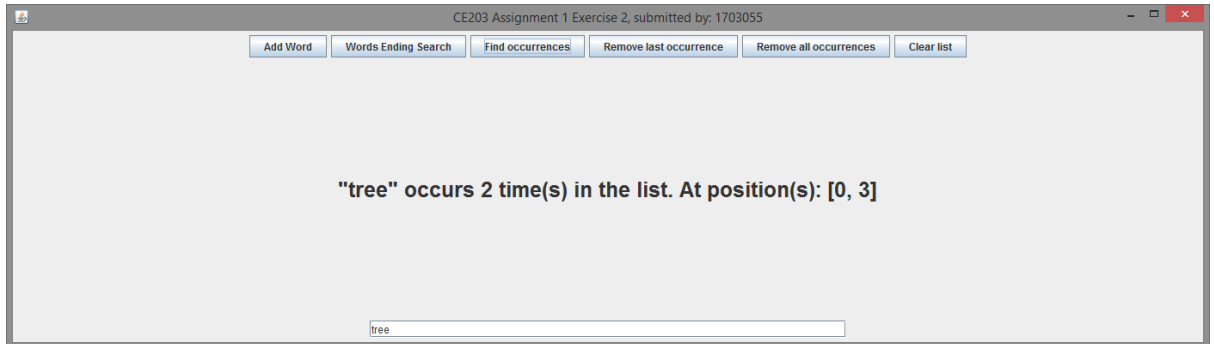


- display all the words from the list that end with a specified letter. Method is case-insensitive too, as demonstrated with both 'E' and 'e' inputs as shown below



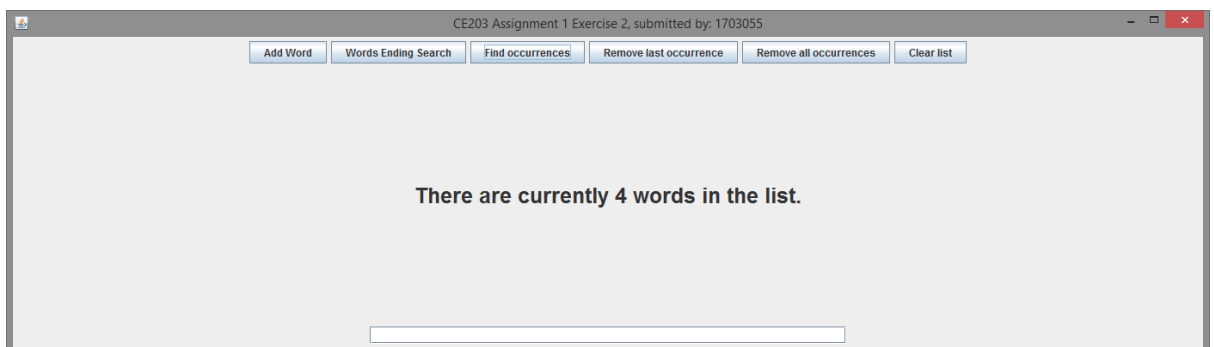
Note input with different case of the letter e - now capital case.

- c) search the list for a word (provided in the text field) and display how many times it is found and the positions in the list in which it is found

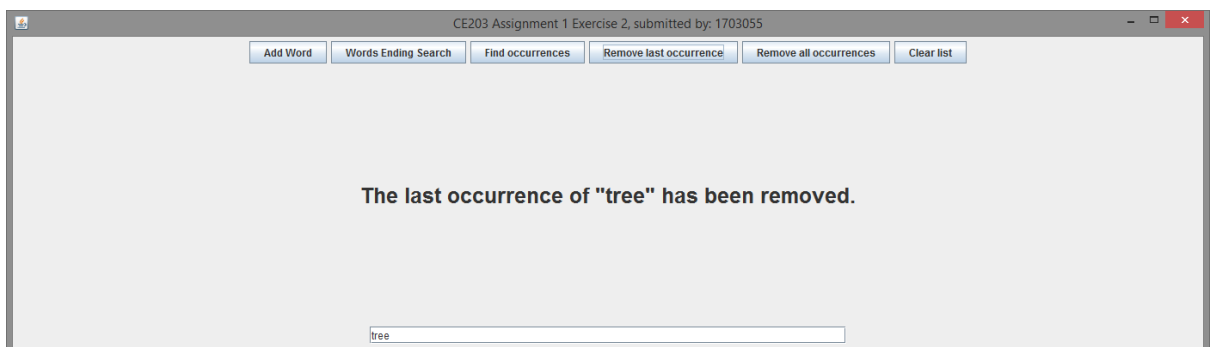


In this case the words added to the list were: tree, apple, fish, tree  
And the word searched for was tree

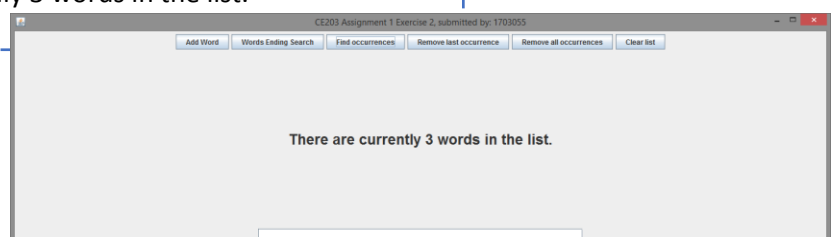
- c) if the text field is empty when this button is pressed, then the system should display the total number of all words in the list (by an appropriate message)



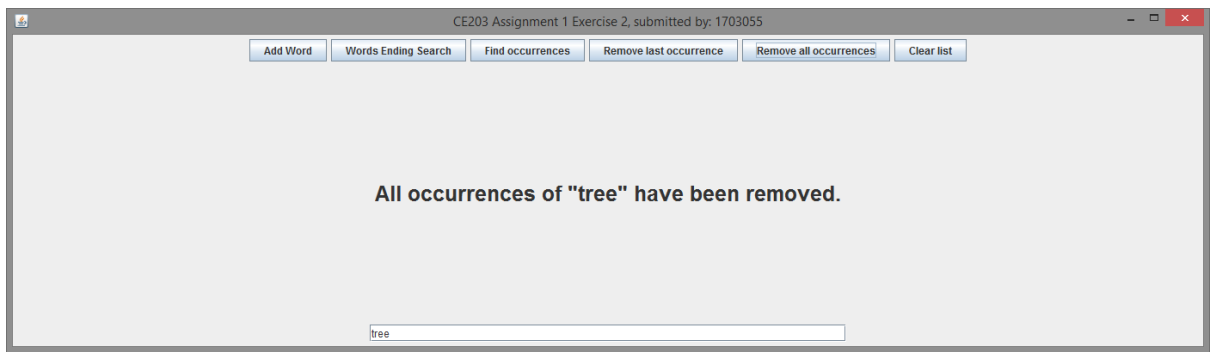
- d) remove from the list the last occurrence of a word



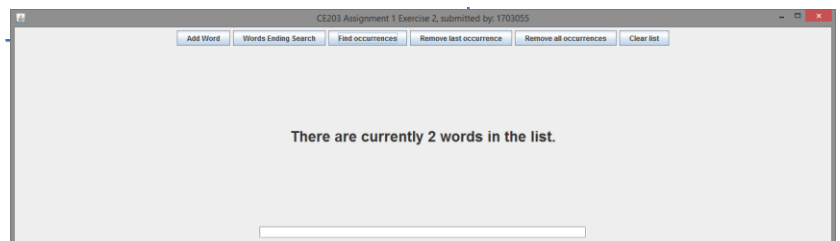
To prove this worked at removing last occurrence of tree, a blank input and search for words by pressing the Find occurrences button shows there is now only 3 words in the list.



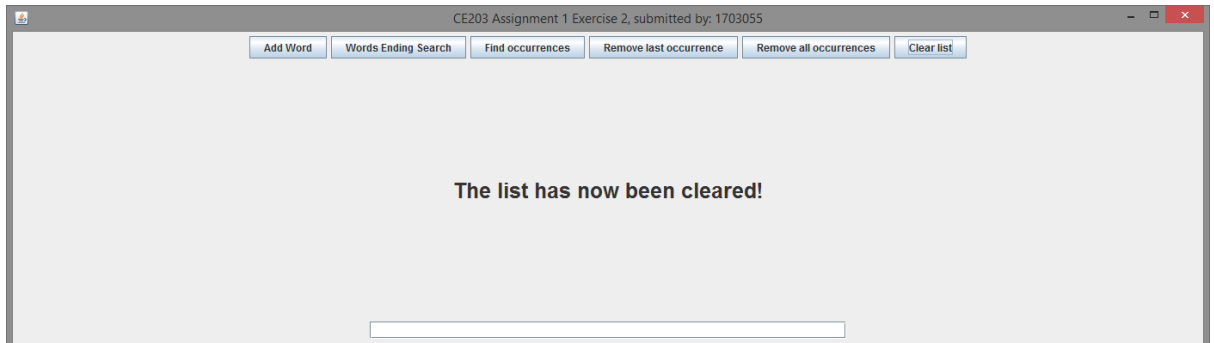
e) remove from the list all occurrences of a word



To prove this worked at removing all occurrences of tree, a blank input and search for words by pressing the Find occurrences button shows there is now only 2 words in the list.



f) clear the list



To show this worked at clearing the list, a blank input and search for words by pressing the 'Find occurrences' button shows the list is now empty!

