

UNIT TEST EXPLANATION

Testing is important because you can find out the problems in the software through the running of various test cases. It also helps to isolate each running part of the software so that if there is a problem it can be quickly identified and corrected.

The `testLoadWordsMap()` method tests whether the `loadWordsMap()` method correctly populates the map `HashMap` in the `tut` class with the correct word count. It checks the count of the word "word" in the `HashMap` and compares it to the expected count.

The `testCountButtonWithInput()` method tests whether the `countButton` works correctly when the user enters a word in the `WordField`. It sets the `WordField` to "will", clicks the `countButton`, and checks if the value in the `CountField` matches the expected count of "1".

The `testCountButtonWithNoInput()` method tests whether the `countButton` displays an error message when the user does not enter any input in the `WordField`. It sets the `WordField` to blank, clicks the `countButton`, and checks whether the alert message is showing.

The `testClearButton()` method tests whether the `clearButton` correctly clears the `WordField` and `CountField`. It sets the `WordField` to "Only" and the `CountField` to "1", clicks the `clearButton`, and checks if both fields are blank after the click.