

CS 211: Project 3 Discussion

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Week 5

Document: Demonstrate these Methods

```
public class Document{
    public Document(String contents);
    // Construct a document with the given contents

    public String toString();
    public String debugString();
    // Returns a string representation of the document with the
    // contents modified to mark the word selected by nextWord()

    public String nextWord();

    public boolean hasNextWord();

    public void replaceLastWord(String correction);

    public String currentLine();

    public void rewind();
    // Reset the internal position of the document so that a subsequent
    // call to nextWord() will return the first word in the document
}
```

Spell Checkers

SpellChecker

- | Basic spell check which highlights incorrect words

- |

- +--AutomaticSC extends SpellChecker

- | Automatic check which corrects words based on
- | edit distance

- |

- +--InteractiveSC extends SpellChecker

- | Interactive checker which prompts users for
- | corrections

- |

- +--PersonalSC extends InteractiveSC

- | Interactive checker with a personalizable
- | dictionary

Document : Editable document class

StringComparison : Contains editDistance(..)

Methods of All Spell Checkers

Constructor Construct a spell checker by providing it with a file containing correct dictionary words and indicate whether upper/lower case letters should be ignored while checking spelling

boolean isCorrect(String word) Return true if the given word considered correct by the spell checker and false otherwise.

String correctWord(String word) Regardless of whether the word is correct or not, provide an alternative word to replace it.

void correctDocument(Document doc) Modify the provided document to replace all incorrect words with a correction provided by the spell checker. The `Document` class is provided in the project pack.