**Class Diagram**

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| TextAnalysis |
| **Attributes** |
| + String input |
| + char[] inputAsArray |
| + String inputForDisplay |
| + ArrayList<String> inputAsStringArrayList |
| + int numberOfSpaces |
| + int numberOfWords |
| + int charsIncludingSpaces |
| + int charsExcludingSpaces |
| + int[] characterFrequency |
| + int highestCount |
| + int numberOfRecognisedCharacters |
| + int numberOfUnrecognisedCharacters |
| + String[] relativeFrequency |
| + ArrayList<Integer> wordLengths |
| + ArrayList<Integer> wordLengthFrequencies |
| + ArrayList<String> longestWord |
| + ArrayList<String> basicAnalysisForDisplay |
| + String wordLengthFrequenciesDisplay |
| + String longestWordForDisplay |
| + static final char[] characterArray |
| Include get method for each attribute |
| **Analysis methods** |
| + int numberOfSpaces(…) |
| + int numberOfWords(…) |
| + int countCharacters(…) |
| + int[] characterFrequency(…) |
| + int highestCount(…) |
| + int numberOfRecognisedCharacters(…) |
| + int numberOfUnrecognisedCharacters(…) |
| + String[] relativeFrequency(…) |
| + ArrayList<String> inputAsStringArrayList(…) |
| + ArrayList<Integer> wordLengths(…) |
| + ArrayList<Integer> wordLengthFrequencies(…) |
| + ArrayList<String> longestWord(…) |
| **Display methods** |
| + String inputForDisplay(…) |
| + void displayWordLengths(…) |
| + String wordLengthFrequenciesDisplay(…) |
| + String longestWordForDisplay(…) |
| + ArrayList<String> basicAnalysisForDisplay(…) |
| + void printBasicAnalysis(…) |
| + void displayFrequencies(…) |
| + void barChartFrequencies(…) |