Text File Analyzer

Software Requirements Specification (SRS)

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Revision History

Date	Revision	Description	Author
10/19/17	1.0	Initial Version	All

Program Overview

The Text File Analyzer is a GUI-based program designed for a single user to enable them to analyze a specific file for useful information regarding its text. All input to the program must be supplied in the form of a .txt file(s), otherwise the program cannot successfully open the file and will instead error. The Text File Analyzer will return information to the user in the form of a processed word count, total number of lines, spaces, and any lines that were blank/whitespace. In addition, the program will calculate the average number of characters per line, average word length, and the most common words contained in the text file. Punctuation and possession will be stripped from this analysis to provide more accurate results. Finally, all information will be displayed to the user through the GUI-based program for use, along with being recorded in a persistent log to track both processed file history and averages across all files. In order to enhance ease of use for the user, documentation is provided in the form of a readme and the GUI will give direction to the user.

Use Cases

Test Cases

	Feature	Description	Possible Input	Expected Output
1	GUI	The "GUI" encapsulates the graphical interface available to the user within the software. Things like text boxes, buttons and file analysis information are encompassed in the GUI functionality of the program.	This will be tested as a component of all other functionalities. The entire functionality of the program will be tested, which should have a complying GUI.	Correctly sized, scaled GUI with correct information and functionalities present.
2	File Access/Upload File	The software will have a file uploading functionality that can be used to select and upload the file to the file analyzer. The software will read text files.	Files will be chosen from the system to be uploaded to the program. These may be a text file or any other sort of tile, depending on what the user chooses.	Only the text file should be uploaded, with a success message. Any other file type will be ignored/met with an error message.
3	File Reporting/Statistics	The file reporting system inside the software will, when supplied with an uploaded file, will report the following: a. # lines b. # blank lines c. # spaces d. # words e. Average chars per line f. Average word length g. Most common words	The user will use the file report button to request analysis of the uploaded file.	The software will output the stats listed in the description correctly and visible to the user.
4	Help information	The software will have a 'help information' option that will allow the user to look for and receive help in regards to operation of the software.	The user can use the 'help center' to read about the functionality of every aspect of the software.	The software should correctly display information regarding help.
5	Analysis updating	The software, if prompted, will be able to return an updated version of the regular file report that removes punctuation and possession from the file	The user will use the analysis update button to update the statistics displayed.	The software should correctly display the statistics for the current file.

6	Multiple File Functionality	The software will have the capability to read and analyze multiple files over time.	The user will first upload a file and then choose another file to upload and analyze.	The software should correctly handle all functionalities on the second file, discarding the reports from the previous files.
7	History statistics	The software will have the capability to report all the files historically uploaded or analyzed by the program..	The user can choose to view a history portion of the software that records all the previous files uploaded	The software should correctly display a list of previously uploaded files
8	Historical file analysis	The software will have the capability to report statistics from previously uploaded files in the software's history.	The user can choose to view an analysis of a previously uploaded file	The software should correctly display statistics from the previously uploaded file.

Plan for First Deliverable

	Task	Description	Assignment
1	Class diagrams	Class diagrams provide an overview of the final program, including attributes of each class needed for the program. Designed in Paint.	Mark, Chris
2	Test cases	Test cases will be written up using Google Docs to test various inputs. Outlier inputs to test possible error cases will be included.	Austin
3	Program classes (basic)	Basic implementation of the program will begin; Java will be used. The basic program will take an input file name and validate it.	Zoe, Mark, Chris, Austin
4	Input file analysis	Removal of punctuation, calculation of the number of occurrences of lines, spaces, and words in the given file. Will be coded in Java.	Austin
5	Help Information	Rough draft written up using Google Docs; will layout information for the user, including instructions the user will follow to retrieve particular outputs.	Zoe