# REQUIREMENTS DOCUMENT

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| **Date Submitted:** | March 1, 2021 |
| **Application Title:** | Chapter 8 Exam |
| **Purpose:** | The program is designed to be a Character Analysis of the given statement in the text file. It should list the number of uppercase letters, lowercase letters, digits in the file, and the number of white spaces in the file. All of this should output to the console. |
| **Program Procedures:** | All you need to do is run the file by pressing the green play button in the top right corner. The program is set up to accept the text file already to be counted. There is no other steps or procedure the user should worry about. |
| **Algorithms, Processing, and Conditions:** | 1. Get the information from the text file:  * Open the text file. * Store the information from the text file into a separate variable. * Close the text file. * Return the variable in the function with the text in it  1. Define a function to count each of the characters from the text stored in the variable. 2. Set up a function for each of the requirements. CountDigits(), CountUppercase(), CountLowerCase(), and CountWhiteSpace()  * Call a separate variable for each character to store the count. * Use a for loop to iterate through the entire string. * Add if statements to check if the character is upper case, lower case, a number, or whitespace to the corresponding function. * Depending on what each character is the program will add 1 to the corresponding count. * Print the information.  1. Define a function to count the words and set it up as such: CountWords()  * Split the string of the text file and contain the splits in a list. * Display the length of the entire list.  1. Call the each of the functions in the main function to count the characters and pass in the text from the file as an argument. |
| **Notes and Restrictions:** | The program can only operate for the downloaded file named text.txt. you may change the contents of this file in order to those characters to be counted. Do not change the name of the text file. |
| **Comments:** | The program uses the file that is stored in the project to make the count. The name of the file is text.txt. This file is located in the Chapter 8 Exam folder that contains the entire project. |