**Beteab Gebru**

**Compilers I – Project 1 : Iteration 1 9/27/2018**

**Software Design Document**

**The Word Counter**

The program will initially be designed with command line interface to take in name of a document from a user which must be placed in the same directory as the program.

The main() function will take the name of the text document as an argument, which in turn is presented by the user to the system.

The program intends to use some libraries such as the hash maps, scanner from java library to read words. The functions will be modified to use several symbols and spaces as delimiters for the words.

**package words;**

**import java.util.\*;**

**import java.io.\*;**

The program builds a hash map of words and appearances in the text. The first word is stored and assigned count of 1.for every word that is grabbed by the scanner we check if the search returns true for a key match/ if false it goes to add a new word with count of 1. If a word is found to have been on the record already the count is incremented. The total count is incremented by one for every iteration of the loop(for every word grabbed by scanner).

The following design document will be used to make the next Iteration of the application. The code in main application will be moved to help with code clarity. The idea is to implement the GUI in the main program and do the word analysis in another file which we will call Wordify.java.

By the end of second iteration the program will be able to read a document and report some data and indicate where to find the results of the words analysis.

