# INTRODUCTION

## Identification

This Software Requirements Specification (SRS) document establishes the overall software requirements for the Word Statistics software being created. This SRS can be used as a basis for design and testing of the Word Statistics software.

## Software Overview

“In this project you are writing a program to perform various word statistics of a given document (as a string). The initial requirement is to count the frequency of each unique word. The code should support combinations of space, tab, and newline characters as separators.”

This is the guideline and requirements handed down by the instructor and it will be the leading development guideline throughout the software’s lifecycle.

**2.0 REQUIREMENTS**

**2.2 Functional Requirements**

* This system is to count every unique combination of letters and symbols, that form a string, that are separated by white space.
* White space is to be considered a space, tab or newline.

**2.3 Non-Functional Requirements**

* There are no explicit non-functional requirements. The code will not have any memory leaks or segmentation faults.
* The code will be extremely usable, requiring only a minor read-me that explains how to use the code and what will be expected from the code’s output.
* There will be almost an infinite mean time between failures, as the code will be simple enough to not use a significant amount of memory or resources.

**2.4 Software Design Requirements**

* The program will treat a “word” as any combination of characters (a string) that are separated by white space.
* The input of words will be given by the user manually upon running of the program. The program will not read from a file of any sort.
* There is no requirement for the language used to design the program. Any language will suffice.
* A “word” can be any number of characters. There is no limit on the amount of characters per “word”.
* Values will be presented in the console via a print statement. Each unique “word” will have a value associated with it for how many times it appears in the given input text

**2.5 Test Case Requirements**

* There will be a test case to test that the code works with a normal “word” composed of English letters.
* There will be a test case to test that the code works with a “word” that contains English letters and numbers.
* There will be a test case to test that the code works with a “word” that contains only numbers.
* There will be a test case to test that the code works with a “word” that contains English letters and symbols (ex. ?!$)
* There will be a test case to test that the code works with a “word” that contains only symbols (ex. ?!$)
* There will be a test case to test each type of white space (newline, tab, space).