SOFTWARE REQUIREMENTS SPECIFICATION

for

CMPS 4113 - Software Engineering

Contents

Revision History

February 4, 2017 Initial Draft - Christopher Silva, Anthony Enem, Nathan Durst, Da Dong, and Shujing Zhang.

1 Introduction

Dr. Stringfellow (hereafter referred to as the client), is interested in software that will help ensure that her computer science students are writing programs that fit her specifications. This software should calculate and display metrics about the users source code such as line of code, lines of documentation, and the ratio of the two.

1.1 Purpose

This document details the Project Plan for the Software Metrics Calculation System (hereafter referred to as SCMS), which the Software Engineering group ID-10-T (hereafter also referred to as the team) has devised to assist in the software development process. The plan outlines the different areas of the project that must be addressed for successful development of the software. It establishes guidelines for resources that will be used in the project, and also points out additional resources that are needed. The Project Plan shows how the team is comprised and states the means of reporting. This plan addresses some of the risks involved in the project and the steps to correct those risks, if they occur. Also, quality assurance will be mentioned, and a glossary of terms used in this document is included.

1.2 Scope

The client wants SMCS to quickly calculate code metrics on student source code. The client currently spends an excess amount of time looking for issues that could be solved if students had software to point them out. The client would like SMCS to support C++ and Java source code. The client would like SMCS to be easily extensible in the future to allow for more types of metrics or languages.

1.3 Main Objective

The main objective of SMCS is to help first and second year computer science students become better programmers by giving them a tool that will point out some frequent simple mistakes that they make.

1.4 Overview of Document

2 Overall Description

2.1 Product Perspective

2.2 User Classes and Characteristics