University of Waterloo

Faculty of Mathematics

# Testing Plan and Documentation

2016-02-25  
Self-study

International Medical Solutions

2425 Matheson Blvd. East  
Mississauga, Ontario, Canada

Prepared by  
Andy Hoang Nguyen  
20577303  
ah2nguye@uwaterloo.ca  
2A Computer Science  
1 March 2016

# Memorandum

1 March 2016

${supervisor\_name}

Senior Software Engineer

International Medical Solutions

2425 Matheson Blvd

Dear Sir,

I have written the following report, “Testing Plan and Documentation” for my 2A work report and for the Internal Software Development Department. This report is the first of four required of the University of Waterloo Computer Science Coop program.

As an employed coop student at International Medical Solutions, my responsibilities include supporting the development of software for our clients. As part of my duties I have been exposed to the typical workflow of the Microsoft technology stack.

As part of my duties and self-study, I have created a report to analyze the importance of the creation of a technical document. The report titled “Testing Plan and Documentation” highlights the findings of my study and is below.

Sincerely,

Andy Hoang Nguyen

|  |
| --- |
|  |

# Table Of Contents

[Testing Plan and Documentation i](#_Toc444464465)

[Memorandum ii](#_Toc444464466)

[Table Of Contents 1](#_Toc444464467)

[1. Analysis 2](#_Toc444464468)

[1.1. Purpose of the User Manual 2](#_Toc444464469)

[1.2. Good Characteristics of a User Manual 2](#_Toc444464470)

[1.3. Possible Improvements 2](#_Toc444464471)

# Analysis

## Purpose of the User Manual

The purpose of the user manual is to easily communicate ideas between developers working on the project. The user manual is a technical document that gives its reader assistance in understanding the technical details of the code.

## Good Characteristics of a User Manual

Good characteristics of a user manual includes: clear, concise, easy to follow, notations should be explained if it is not common sense to the readers of the technical document.

Documents should have a clear reference for the code in question. This manual is designed as a quick CTRL-F reference guide to find out what each named section of the code does. I have designed the manual to be as convenient to use as possible. With a navigation panel so readers can both CTRL-F to find the section they need it, or browse for it through the panel.

## Possible Improvements

The possible improvements to this document includes the inclusion of a table of contents, more information given our table, as it only contains the location and name of a file and not what information is stored within.

* 1. Reasons Why the Software Described in the Manual is Needed

Our software is critical to test because we are dealing with important data, and writing well designed tests. One of the most devastating effects of a bug is data loss due to a bug in the software. This can be avoided partially by having well designed tests, one way we do this is to have a test plan, so we can easily document what our tests do so we can single what happens in a test if something goes wrong.

In this case, this portion of the software relies on the application performing multiple complex or simple applications. In the case that we are performing complex operations this manual is extremely important to explain operations to the development team of the application. This manual was created to streamline the demonstration of expected behavior by the application by creating tables which demonstrate the steps completed by the software and their intended behavior.

* 1. Specific Examples Illustrating the Impact of the Software of the Manual

This specific manual was intended to demonstrate the intended behavior for a critical bug which had complex behavior that was complicated to explain between developers. The development team had several interpretations of the expected behavior of the software and it was difficult to come up with a correct interpretation, especially with a remote team. This manual was created to display a very easy to understand procedure and effect format for every test that we do.

Another specific example was the refactoring of the test codebase, at the time I have at have worked at International Medical Solutions, the test codebase was relatively small compared to other projects. During my time writing tests I refactored the test database to create categorized tests which I assign specific tests to. This manual in particular documents the sample tests. That is, we have one specific example in which our software does manipulations to through multiple independent tests.

<Insert the manual here for the final draft>