Sections and Chapters

Christina Korsman,Oussama Saoudi

Contents

1 Introduction

1.1 Purpose

This document is intended to act as a software requirements specification for the program, which will outline the requirements that the software must meet and the priority of each of said requirements. The intended audience for the document is the client requesting the software, who will use it to understand the formalized specification for the software project being developed. The software developers will also use the document in the development of components to ensure that they meet the requirements specified.

1.2 Scope

The software being developed is called Project: Vayu.

Project: Vayu aims to provide information on natural disasters, particularly information on property damage in sorted order, and geographical locations affected by particular natural disasters. The software will not add new data.

The objective of the project is to present natural disaster information in forms relevant to disaster relief organizations and governments. This will be done by presenting regions prone to certain disasters and which regions are most affected by natural disasters and their property costs and casualties. The representation can be modified depending on the time of year, allowing for resource management of relief to be allocated to the right places at the right times of the year.

1.3 References

[1] "Disaster Prediction App – Apps on Google Play," Google. [Online]. Available: `https://play.google.com/store/apps/details?id=com.disasterprediction.ios&hl=en_CA.` [Accessed: 07-Feb-2020].

[2] "MyFireWatch - Bushfire map information Australia", Myfirewatch.landgate.wa.gov.au, 2020. [Online]. Available: `https://myfirewatch.landgate.wa.gov.au/map.html.` [Accessed: 07- Feb- 2020].

1.4 Overview

The remainder of the document will consist of previous works and their purposes, the primary function of the software, user characteristics and the software's target audience, constraints on the software design, and finally assumptions and dependencies in the project. This document is formatted in standard SRS 1998 format.

2 Overall Description

2.1 Product perspective

Disaster Prediction App[1]

: This mobile application reports space weather changes as well as earthquake incidents around the world. It shares similar characteristics with this project such as reporting recent weather trends (albeit on the interplanetary level) and this project as it is only concerned with solar influences and earthquakes, but not storms, blizzards, or tornados, etc., which are more relevant to daily lives. A way to improve it will be to include data reports on hazardous weather that are more often concerned by people, like those mentioned beforehand.

MyFireWatch[2]

: MyFireWatch is a web service that visualizes recent fires by projecting their location on a map. Similar to the proposed project, it highlights regions most recently and often affected by natural hazards. However, it is limited to just visualizing incidences of fire, not analyzing if there is any relation between the incidences' geographic location and occurrence time, which may be implemented to enhance the service's usefulness.

2.2 Product function

The main function that the software will perform is visualizing the danger of a certain geographical region, providing guidance to avoid such hazards. The geographical location will be provided by the user through the use of a mobile GPS device or the manual input of positional coordinates.

2.3 User characteristics

The intended users of this product will need minimal knowledge of the operation of a mobile device. The target audience will be mainly directed to government and rescue personnel.

2.4 Constraints

The reliability of the data is constrained, due to the non-infinity set of natural disasters recorded in the dataset. Another constraint with this data set is the limited set of data points relating to time.

3 Specific Features

3.1 Information Display

3.2 Design Constraints

The product design must be consistent with Mcmaster Software Engineering 2XB3 Software Engineering Practice and Experience:Binding Theory to Practice Final project documentation.

4 Software System Attributes

4.1 Maintainability

Using Git issue tracker to allow the ease of maintablity and process tracker. The product will use separation of concerns along with modularity to allow for ease of maintenance.

4.2 Portability

Through the use of java and the product will be allowed to run on any system that supports Java 8 and above.