**Software Requirements Specification**

**for**

**Searchquake**

**Prepared by Adam Davis, Kyle Emery, and**

**Jacob Kickbush**

**April 6, 2018**

**1 Introduction**

* 1. **Purpose**

This document describes the requirements for the Searchquake application, which allows users to explore earthquake data.

* 1. **Document Conventions**

The functional requirements for this project are organized by Use Case within the corresponding Primary Actor group.

**2 Overall Description**

**2.1 Use Cases**

**2.1.1 User**

A user is someone who uses Searchquake to explore earthquake data.

UC-U-1 Type “Help” for a list of commands

UC-U-2 Type “Summary” to print all of the data

UC-U-3 Type “Print” to print all earthquake events

UC-U-4 Type “Printby” to print earthquake events sorted by some field

UC-U-5 Type “Search” to search by specific criteria

**3 Functional Requirements**

**3.1 Use Cases for Users**

**UC-U-1: Help Command**

**Description:** Typing help in the console prints out a description of all commands and how to invoke them appropriately.

Command.Help Using a while loop that runs our user’s commands until they break it, if the user types help, it will print out all of the available commands and what they do.

**UC-U-2: Summary Command**

**Description:** Typing Summary in the console prints out a summary of all the data (# of events,

Time range of the events, etc.)

Command.Summary If the user enters summary, it will print the arrayList’s toString that summarizes the data

**UC-U-3: Print Command**

**Description:** Typing Print in the console prints out all of the earthquake events

Command.Print If the user enters Print, it will print out the toString for every earthquake.

**UC-U-4: PrintBy Command**

**Description:**  Typing PrintBy print out all of the earthquake events sorted by some field

Command.PrintBy If the user enters PrintBy\_\_, use a comparator to print out the earthquake

events in descending order based on the field provided by the user.

**UC-U-5: SearchBy Command**

**Description:** Allows the user to search earthquake events that meet some criteria.

Command.SearchBy If the user enters SearchBy\_\_, we take the string as an argument,

match the field in earthquakes and output a list of matching earthquakes.

First define the arrayLists, then loop through the earthquakes, and if it

matches the argument, add to a list and return it. Input errors are handled if

the user invokes the command incorrectly.