Make It Rain!™ Software Requirements Specification

1. Introduction

a. Purpose

i. The purpose of Make It Rain!™ is to create a functional and enjoyable gaming experience for a wide range of users. This will be accomplished by documenting the player's score, displaying an overall high score, increasing levels of difficulty, and other features intended to improve user experience.

b. Intended Audience

. Make It Rain!™ is intended for all audiences.

c. Definitions and Acronyms

i. Make It Rain!™ utilizes various names to refer to the objects depicted on screen. Those include but are not limited to bucket (the object the user controls), water droplet (the object the user collects), and score counter (the object used to keep track of and display scores and high scores).

2. Overall Description

a. User Needs

i. Make It Rain!™ features multiple features that address the various needs of the user. These features include a score counter, simple login screen, and a birthday message for when it is the user's birthday.

b. Basic Structure

i. Make It Rain!™ contains a simple structure that is built upon a previously completed program. Below are UML diagrams that show the basic structure of the program.

Classes & Methods from Qt Assignment #2 To Build Upon

Main Step 1 - Create a QApplication app(argc, argv) Step 2- Create a scene Step 3 - Create a view Step 4 - Add the scene to the view Step 5 - Show the view Step 6 - Return the app.exec();

gameScene bucket *bucketItem waterDroplet *waterDropletItem QTimer *spawnDropletsTimer gameScene() void generateDroplet()

waterDroplet int collisonCounter int dropletCreatedCounter int missedDropletCounter

waterDroplet()
void makeItRain()

bucket() void keyPressEvent()

New Classes & Methods for Qt Assignment #3

<u>User</u>

string firstName string lastName dateOfBirth profiilePicture string username string password User users[]

User()

<u>signUp</u>

string firstName string lastName dateOfBirth profiilePicture username string password User users[];

boolean passwordValid()

<u>signIn</u>

string username string password int gameLevel int scoreHistory[]

void signInUser() void signInGuest() string bdayGreeting() boolean chckBdayHelper()

Global Variables

int bestScore int allScores[]

iii.

3. System Features and Requirements

- a. System Features
 - i. The finished Make It Rain!™ product will contain the following features:
 - 1. Sign up, sign in, and guest login in functionality
 - 2. Storing of user information (name, DOB, gender, username, password, etc.)
 - 3. A login page displaying various information
 - 4. Birthday messages for users
 - 5. Score history for the user's past game(s)
 - 6. Score display
 - 7. Win/Lose conditions
 - 8. Increasing difficulty levels (with a cap)
 - 9. Ability to set game difficulty preferences
- b. System Requirements
 - i. Basic computer system functionality is required for Make It Rain!™ to successfully compile and run