Chemistry Geneaology Admin Manual

Brief:

Within this document are instructions on how to (1) obtain the code, (2) start the backend of the application, (3) start the front end of the application, (4) load the database populated with sample data into the application (5) how to run acceptance tests for the application.

Prerequisites:

Before the server may be ran you must first install a series of programs.

1: ruby (version 2.3.0)

2: npm (version 0.12.3)

3: SQLite (most up to date version as of this document's creation)

Instructions:

1: Obtain the code archive from the zip archive located in the google drive.

2: Unzip the contents into a directory of your choosing.

3: Once the contents are unzipped, you must now start up the backend and front end of this application!

4: First, you must install the dependencies (Don't worry! It is a simple command here!) of the application environment. Please navigate to the backend folder

Example path: $/ChemistryGenealogy/backend

Now in this folder you must run two commands. First run the following to set up the ruby environment:

```
gem install bundler
```

This will install the Ruby gem Bundler. Which will make installation of dependencies very easy!

Secondly, run the following command in this same backend folder AFTER having ran the command above (gem install bundler). This will not function without first having installed the Ruby gem Bundler.

```
bundle install
```

This command will go into the file Gemfile within the backend folder and will install the dependencies. Without running this command the application will not work.

5: Secondly, for the backend, please open a terminal window and then navigate to the backend folder.

Example path: $/ChemistryGenealogy/backend

Inside this backend folder please run the following command

```
rails s --binding=0.0.0.0 -d
```

This will begin the server with the URL specified within the urlService.

You can find this URL within the urlService.js file, where you have to put the base url with a :3000/ suffix.

6: Now to begin to set up the front end please navigate to the frontend folder.

Example path: $/ChemistryGenealogy/frontend

Inside this folder please run the following command:

```
npm install
```

This command will install frontend and protractor dependencies for the application.

7: Next, please navigate to the frontend/web folder for the next phase.

Example path: $/ChemistryGenealogy/frontend/web

Inside this folder please run the following command:

```
npm install -g bower
```

This command will install bower globally, which will greatly simplify the installation of frontend and protractor dependencies.

8: After installing Bower, please now ensure you are still in the frontend/web folder.

Example path: $/ChemistryGenealogy/frontend/web

```
bower install
```

This command will use Bower to install the front end and protractor dependencies for the application.

9: Next, please open a second (SEPARATE) terminal window and navigate to the backend folder.

Example path: $/ChemistryGenealogy/frontend/

Inside this frontend folder please run the following command

```
nohup node server.js &
```

Now the front end is running, the additional commands nohup and the & symbol allow it so that the application will still be running even if the terminal window is closed.

10: Before we're finished, the application is currently furnished with our sample test data! This is probably not ideal for the actual deployment of the application.

Our test data is located within the seeds.rb file in the backend/db folder, please navigate to it:

Example path: $/ChemistryGenealogy/backend/db

The file name is seeds.rb

This file defines the test data that will populate the server. It may be wiped to remove the test data.

11: Finally, to start up the database of the application and populate it with sample data please navigate to the backend folder.

Example path: $/ChemistryGenealogy/backend

Within this folder is a shellscript file with the commands needed to start up the database.

In this folder run the following command:

```
./ reloadDB.sh
```

Now with this step completed the front end, back end and database of the application are prepared. And the application should be accessible by the URL specified within the urlService.js file!

Acceptance Testing:

This will be the way that you can test that the application has been set up properly.

Note* This will **require** you have the test data set up in the application, if you wiped the data in seeds.rb file then it is recommended to retrieve the file from the zip file in the google drive again for this process.

Things before running tests:

Always reset the test database.

Without doing this you will get an extremely large number of failed tests.

How to reset the test database:

Navigate to the backend folder, in there should be a shell script called `./reloadDB.sh`, run this and wait for it. This will set up the test database with the expected data.

Notes:

1: All tests were performed using the Chrome browser. I cannot guarantee that they will work on other browsers.

2: The webpage must be in full screen mode, errors occur otherwise.

3: Please do not interact with the webpage launched by the tests.

4: Tests were originally ran on a 4k resolution.

How to download, set up, and run the tests:

VERY CRITICAL: If you follow the main protractor installation guide you WILL NOT be able to use these tests. We're using a different version of protractor specific to our version of angular.

1: Install protractor, the testing application, globally using the command.

```
npm install -g protractor@2
```

2: Obtain the webdriver manager, this is a core functionality needed to run the tests.

```
webdriver-manager update
```

Running the Tests:

1: Ensure that you have the back end AND front end running, if you aren't sure what this means then please read the administrator manual above, which explains how to set up the front and backend.

2: Now in order to run the tests, we need to start the webdriver manager. To start the webdriver, please open a new (separate) terminal window. Navigate to the folder /frontend/tests

Begin running the webdriver manager using the command:

```
webdriver-manager start
```

This will lock the terminal window to the webdriver manager.

3: Finally, to run the tests please navigate to the the frontend/tests folder, the same one as in the immediately previous instruction, and use the command:

```
protractor conf.js
```

What to expect:

-A google chrome window should open.

-This window should execute a series of actions **without** user intervention. **(And please do not interact with it!)**

-Approximately 10 minutes later of testing the window should close itself and then the same terminal window that you began running the tests from should display the following message:

Finished in X seconds Y tests, Z assertions, F failures