**Clubroot Tracker Tutorial**

Download Github Repository

Start by downloading the github repository using the following link or via command line.

Download Zip file:

<https://github.com/kevmu/ClubrootTracker/archive/master.zip>

Command line using git command:

git clone <https://github.com/kevmu/ClubrootTracker.git>

Installing webserver locally using AMPPS or using LAMP (Linux, Apache2, MySQL, PHP) stack:

Installation of AMPPS (Windows, MacOSX and Linux Website Stacks) for local webpage service.

Tutorials on how to install AMPPS can be found here. Installation and configuration of a website is beyond the scope of this tutorial.

Windows:

<http://www.ampps.com/wiki/Install>

MacOSX:

<http://www.ampps.com/wiki/Installation_on_Mac>

Linux:

<http://www.ampps.com/wiki/Installing_AMPPS_on_Linux>

How to install a linux LAMP stack from scratch tutorial (Must have root access):

Install Apache2:

sudo apt-get install apache2

Install Postgres SQL:

sudo service postgresql start

sudo -u postgres psql -c "ALTER USER postgres PASSWORD 'password';"

# Build Database Commands

sudo su postgres

psql

CREATE DATABASE clubroot\_tracker\_login;

\c clubroot\_tracker\_login

CREATE TABLE users (

database\_id SERIAL NOT NULL PRIMARY KEY,

user\_id varchar(255) NOT NULL,

email varchar(255) NOT NULL,

firstname varchar(255) NOT NULL,

lastname varchar(255) NOT NULL,

academictitle varchar(255) NOT NULL,

institution varchar(255) NOT NULL,

country varchar(255) NOT NULL,

password varchar(255) NOT NULL,

termsandconditions varchar(255) NOT NULL,

trn\_date timestamp NOT NULL);

Install PHP modules with Postgres SQL capability:

sudo apt-get install php libapache2-mod-php php-cli php-mysql php-gd php-imagick php-recode php-tidy php-xmlrpc php-pgsql

service apache2 restart

Install Python3.8 for generate\_geojson.py

sudo pip3 install psycopg2-binary

sudo pip3 install pandas

sudo pip3 install numpy

Place public\_html folder in the apache2 www folder (e.g /var/www/html)If you have access to a server that is already setup just place the contents of public\_html directory in your apache2 or web server directory (e.g /var/www/html). You should see the index page using the <http://localhost/index.php> URL.

Structure of input GPS coordinates file:

(<https://raw.githubusercontent.com/kevmu/ClubrootTracker/master/scripts/clubroot_tracker_data.csv>)

Make a comma separate values (CSV) file with the following;

Column 1: Province – The province of the location (e.g Alberta

Column 2: Location – The city/town of the location (e.g Edmonton)

Column 3: Latitude – The latitude coordinates of the location to be displayed on the map. Positive values correspond to degrees east and negative values correspond to degrees west. (e.g -113.4938)

Column 4: Longitude – The longitude coordinates of the location to be displayed on the map. Positive values correspond to degrees north and negative values correspond to degrees south. (e.g 53.5461)

Column 5: Disease Name – The common name of the pathogen to be displayed (e.g Clubroot)

Column 6: Display – A message to display (e.g. Clubroot has been detected in this area. Please use extreme care to avoid spreading the pathogen and disease)

Run the generate\_geojson.py python script. (<https://raw.githubusercontent.com/kevmu/ClubrootTracker/master/scripts/generate_geojson.py>)

python generate\_geojson.py -i clubroot\_tracker\_data.csv -o /var/www/public\_html/clubroot

clubroot\_tracker\_data.csv - An example input file for the generate\_geojson.py python script that generates a tracker\_geojson.js file. (<https://raw.githubusercontent.com/kevmu/ClubrootTracker/master/scripts/clubroot_tracker_data.csv>)

/var/www/public\_html/clubroot – The output directory that contains the clubroot tracker script and data file.

tracker\_geojson.js - This file is an example data file for the clubroot tracker application. The clubroot tracker parses this file for the locations and text to display. (<https://raw.githubusercontent.com/kevmu/ClubrootTracker/master/public_html/clubroot/tracker_geojson.js>)

Displaying the clubroot tracker webpage.

<http://localhost/clubroot/index.php>

<http://localhost/index.php>