Person Counter Setup

Due to not being able to install PHP packages and not able to get .env files working on TAMU server there are three places to change data to run on your server. They are commented with # USER SPECIFIC DATA in the project.

* CommonMethods.php
  + $dbname
  + $user
  + $pass
* Logger.php
  + $logDirectory (may need to chmod 777 this file once it is created the frist time)
* Constants.py
  + SERVER\_API this is the endpoint in this case on the server)

Dependencies

Make sure to have the following items installed

* [Python 3.6.4](https://www.python.org/downloads/release/python-364/)
* [pip 9.0.2](https://pypi.python.org/pypi/pip)
* Be able to run makefiles (bash or cygwin?)

Makefile Commands

Not sure which of these will work on Windows but you can open the makefile and find the appropriate command and run the Windows equivalent.

make all # create venv and install packages

make init\_venv # create venv

make deps # install dependencies in requirements.txt

make freeze # freeze dependencies to requirements.txt

make clean\_venv # remove venv

make run # run python arduino code

make test\_python # run python unit tests

make deploy # Deploy server code to TAMU server

Webserver

SQL To Create Table

USE DB\_NAME;

CREATE TABLE IF NOT EXISTS `PeopleCounts` (

`id` int(10) unsigned NOT NULL,

`time` timestamp NOT NULL DEFAULT CURRENT\_TIMESTAMP,

`entering` enum('false','true') NOT NULL DEFAULT 'true'

) ENGINE=InnoDB AUTO\_INCREMENT=76 DEFAULT CHARSET=utf8;

ALTER TABLE `PeopleCounts`

ADD PRIMARY KEY (`id`);

ALTER TABLE `PeopleCounts`

MODIFY `id` int(10) unsigned NOT NULL AUTO\_INCREMENT,AUTO\_INCREMENT=1;

-- ALTER TABLE `PeopleCounts`

ADD PRIMARY KEY (`id`);

View

Main page web\_project/p1/index.php is a table of all data.

Increment

Increment count table by 1 (Entering)

curl -X POST \

http://projects.cse.tamu.edu/NETID/p1/api/Increment.php \

-d 'secret=69&entering=%22true%22'

Exeting

curl -X POST \

http://projects.cse.tamu.edu/NETID/p1/api/Increment.php \

-d 'secret=69&entering=%22false%22'

Reset Table

This will clear all data in table and set increment back to 1.

curl -X DELETE http://projects.cse.tamu.edu/NETID/p1/api/Reset.php

Arduino Setup

Once you have installed the dependencies listed below, you will need to load the Arduino Firmware.

If you are not able to install with the makefile, do the following

certifi==2018.1.18

chardet==3.0.4

future==0.16.0

idna==2.6

iso8601==0.1.12

numpy==1.14.2

PyMata==2.17

pymata-aio==2.19

pyserial==2.7

PyYAML==3.12

requests==2.18.4

urllib3==1.22

websockets==4.0.1

If you are not able to install with the makefile, do the following

cd arduino

pip install -r requirements.txt

Firmware is FirmataPlus. How to install the 3rd party package can be found <https://github.com/MrYsLab/pymata-aio/wiki/Uploading-FirmataPlus-to-Arduino>

Once loaded, run the program!

python3 arduino/main.py