

ISYS2120 Assignment 3 Documentation

About

This is a web application designed for user device management. This webapp allows for users to view their devices and allows managers to issue and revoke the devices. Dummy data is provided to allow for you to navigate through the web application and understand what data is used and how it is used.

Please Note

There will most definitely be bugs. Most of the bugs will occur when no values are returned from the database or the list is handled inappropriately. The main files for the bugs will be **database.py** and **routes.py**.

NOTE #2

If you experience the "locked out of your account" or "no more sessions" you have most likely exceeded the number of sessions to the database. There isn't many assigned per account on the university database, this means you failed to correctly close your cursors or your connections. **You will need to wait approximately a day for it to fix up, although it could also be fixed in a few hours.**

Source code

Installation Instructions

To get this working, you're going to need Python on your machine.

1. Install Python (3.7.X is the latest Python)
 - Windows: <https://www.python.org/downloads/windows/>
 - <https://www.howtogeek.com/197947/how-to-install-python-on-windows/>
 - <https://github.com/BurntSushi/nfldb/wiki/Python-&-pip-Windows-installation>
 - Mac: <https://www.python.org/downloads/mac-osx/>
 - <http://osxdaily.com/2018/06/13/how-install-update-python-3x-mac/>
 - (If you have homebrew, `brew install it.`)

- Linux:
 - Ubuntu: `sudo apt-get install python3-pip python-dev`
 - Arch: `sudo pacman -S python`
 - Any others: `..Google?`

If the packages don't work out of the box then install requirements:

2. Make sure `pip` (Python's package manager) is installed! It will help you install the necessary packages to run this.
 - If you get stuck with making sure you have `pip` :
 - <https://pip.pypa.io/en/stable/installing/>
 - <https://stackoverflow.com/questions/4750806/how-do-i-install-pip-on-windows>
 - <https://stackoverflow.com/questions/6587507/how-to-install-pip-with-python-3>
 - (If you prefer to do this inside a [virtual environment](#) please do so.)
 - `pip install -r requirements.txt` : this will help install the related packages inside the requirements file.
 - This command looks for the `requirements.txt` in the same folder. If it's not there, replace it with the path to the requirements file.
 - *Note: `pip` varies between distributions, sometime's you'll need to explicitly say `pip3` for python3's `pip`. However, if you set up a virtual environment, it should automatically bind to `pip`. Ask your tutor about `virtual environments` if you're curious about setting one up. Or [read here](#).
3. Run: `python main.py` OR `python3 main.py`.
4. It *should* be working, if not - check the errors, make sure you've got everything installed properly!
 - If all else fails feel free to poke your tutor. 😊

Errors

If you're running into errors when you're installing things, there's some ways to fix it.

Don't be scared to google away errors! It's often quicker to learn.

However, we're here (as tutors) to help! Let us know if we can 😊

- Errors when installing through `pip` - try using `sudo pip install` (Unix/Linux/Mac) or run as admin on Windows. Sometimes if you're not using a virtual

environment, it might want to write to system folders which requires super user privileges.

- (P.S. There's ways around this, but out of scope of this document)
- [UBUNTU] " pg_config executable not found "
 - Run `sudo apt-get install libpq-dev python-dev` to ensure you have related libraries.
- Windows: Google? 😅

Main Important Files :

config.ini

- Edit this to have your database connection information
- `USER =` your PgAdmin login username
- `password =` password for pgAdmin

database.py (QUERIES HERE)

- Sets up connections to the database
- Runs all the queries (you write)
- Has all the database functions
- Most of your work is done in here

routes.py

- Handles how the website runs.
- Provides the routes (e.g. `website.com/myroute`)
- You might need to do some *slight* modifications to this file.

templates

- If you want to change the way anything looks - template files
- Take a look at the structure and how it works
- Understand what you need to do in **routes.py** in order to get everything working.

Manager Adding/Removing devices

Adding

- To add a device, go to "issue device".

- Select an employee from the list
- Select a model and manufacturer
 - NOTE: this sends a request to the database to get the device models that have not yet been assigned.
- Select the device_id and press "Issue Device".
- If successful, you will see a "green" bar and show success.

Removing

- Go to "manage department"
- Select a model/manufacturer
- Select an employee
- Click the red circle next to the device.
- If successful, you will see a "green" bar.

What to look for

I've put in some nice *TODO* statements, detailing what you have to do. The **week 9** tutorial is a good place to start and look at what you need to do :) It's a good place to look if you're getting stuck or not sure what to start with.

I want to do awesome stuff!

Honestly, the limitations lie with you, just make sure you're looking at the **marking criteria** and understanding where you are getting the marks.

Help!? I don't understand any of this

- Like I said before, **week 9** tutorial (and lecture) are very very very helpful, so it would be a good place to start.
- Check out the Flask tutorial and documentation to understand how it all works:
<http://flask.pocoo.org/docs/0.10/tutorial/>
- Check out the pg8000 documentation:
<https://pythonhosted.org/pg8000/quickstart.html>

Good luck :)
