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EC 463

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Miniproject Report

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EC 463 Miniproject Report

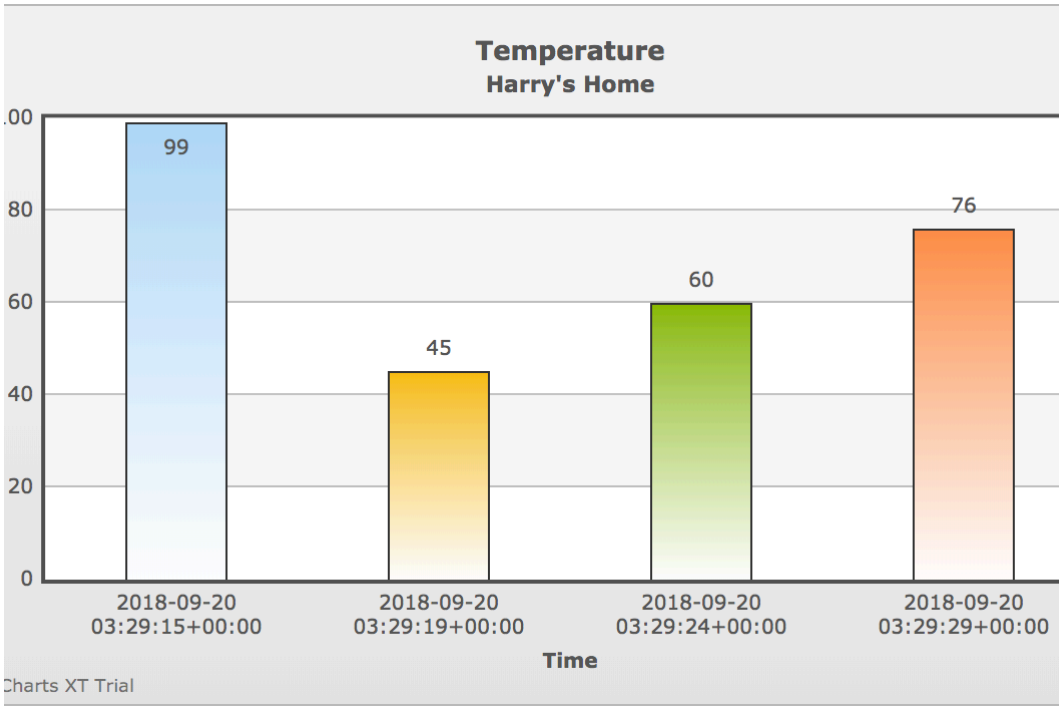
At the beginning of EC 463, a class where students from the College of Engineering gather to design and develop a project, we were giving a team assignment and a mini-project. The mini-projects are divided into two categories, one for the hardware team, the other for the software team. We were assigned to work on the software project. This project demonstrates the basic needs to design, develop, collaborate and ship a project. Through this project, we learned the basics of Github and team communication.

The objective of this project is to design a website that would show the user a graph of their home's recorded temperature and humidity. Since this is a software project, we are free to choose the programming language we want to use, and the platform we wish to deploy on.

We choose to use Django as the Backend, and HTML as the frontend, therefore, our project is web based interface. The reason we chose Django is because of its scalability, its already implemented Users and Groups database, its ability to perform agile development, the massive amount of middleware, and its huge community that could offer insights to what we are trying to accomplish.

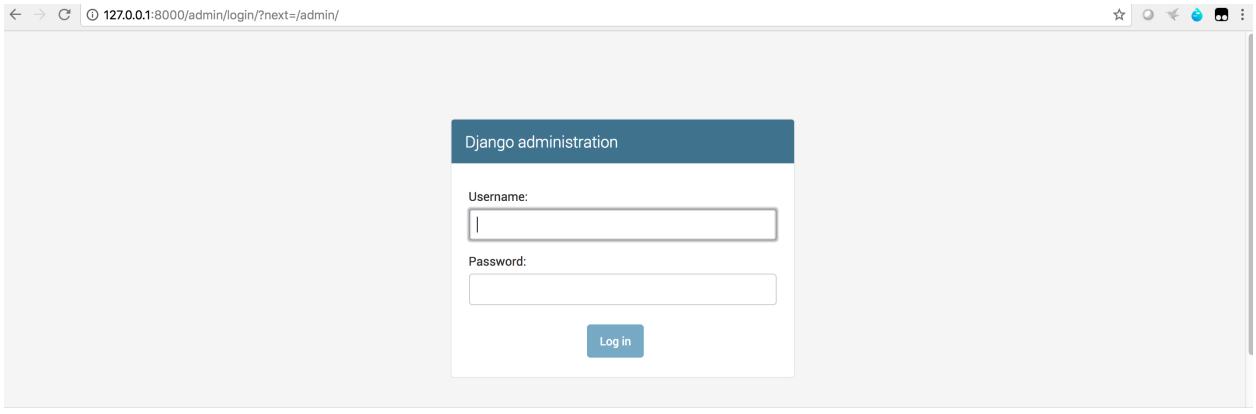
We decided that only the user, the owner of the home, will be able to add or delete data from the database, therefore, we setup one superuser for the user, in our case Harry. We implemented a login page, where you have to login before you can make any changes to the data. Then we implemented a crude front-page that contains two links to the temperature or humidity graph.

A sample of the graph is shown below.

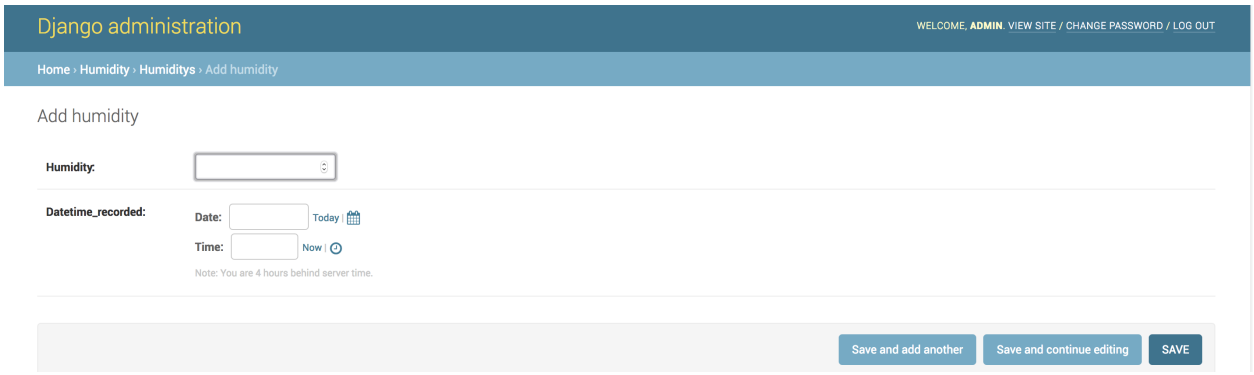


RECORDED TEMPERATURE AT HARRY'S HOME

A screen shot of the login page is shown below.



A screen shot of add data is shown below.



Our website works, but needs improvements on semantics. If we were to continue this project in the future. We would like to make the pages look better and add restrictions to the numbers the user can enter. Since this is developed on python, this website will work on any platform.

Steps to reproduce our result.

1. Clone from the Github repo
2. Install Django and python
3. Navigate to the monitoryouhome folder
4. ./manage.py makemigrations
5. ./manage.py migrate
6. ./manage.py runserver

If you would like to reproduce our results, or use our code for further development.

Please go to https://github.com/Croquembouche/ec463miniproject and submit a pull request.