Center for Earth Observation and Modeling

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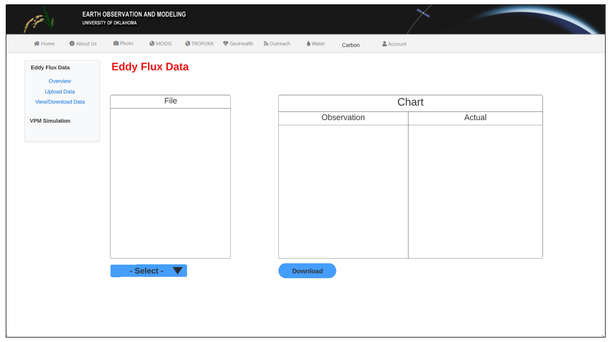
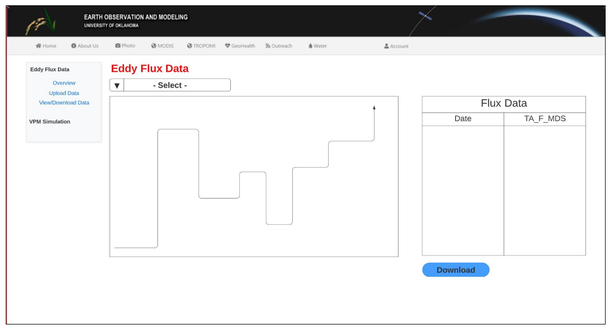
EARTH OBSERVATION AND MODELING
UNIVERSITY OF OKLAHOMA

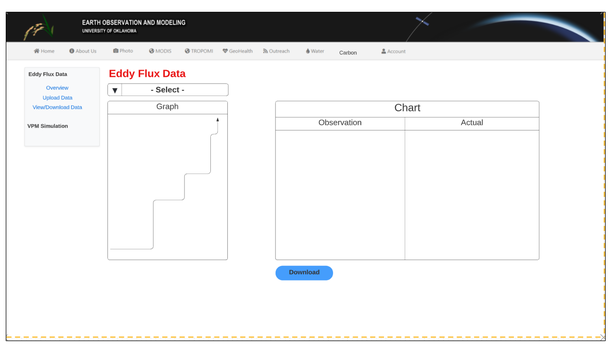
"The CEOM focuses on geospatial science, technologies and applications in bio-, geo- and health- sciences, specifically in the areas of agriculture, forestry, ecology, biodiversity, land use and land cover changes, water quality, climate, infectious diseases and public health. It promotes community remote sensing and citizen science to address the grand challenges in our dynamic and rapidly changing planet Earth and the society."



1st UI Mock-up:
The first rough draft containing the requested elements. This draft shows the layout of a CSV data file and what options the user would have in order to view and download that data.



2nd UI Mock-up:
It was decided that the data would be displayed from the table through a graph. The design of the select drop down was also changed in order to be more readable and easier to access.



3rd UI Mock-up:
After some evaluation, the tab name was finalized and the whitespace between elements was widened in order to be more visually appealing.

Project Description

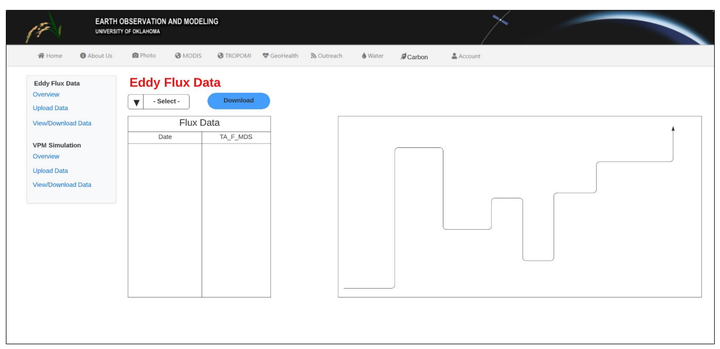
The base html from the already existing CEOM website was taken and used as the foundation to create a new page with the intent to give users access to different sets of CSV data from various eddy flux tower sites. The focus was User Interaction and how the new page could be made the most accessible to a wide demographic of users.

Introduction

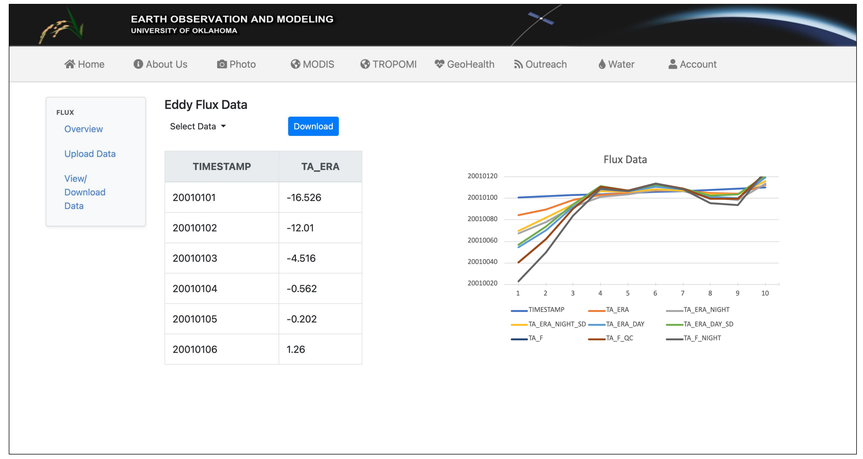
The CEOM's website aims to give the community access to different types of data involving land use, biogeochemical cycles, ecology and epidemiology of infectious diseases. These data sets are displayed using MODIS, satellite-based diagnostic models, spatial epidemiological models, and more. Users are also given options to download various data sets and even contribute data of their own using the Global Geo-Referenced Field Photo Library.

Acknowledgements

I want to thank the University of Oklahoma's FYRE program for allowing me to have the opportunity to work with the Center for Earth Observation and Modeling. I also thank Dr. Xiangming Xiao for allowing me to work with CEOM's software team and Jonathan Miller for guiding me through this project.



Final UI Mock-up:
This finished draft shows the finalized plan for implementation. The Carbon icon was added along with an expanded left-menu. User interactions were taken into consideration, resulting in a closer button placement and enlargement of the data graph. The table and graph were also swapped in order to make user readability simpler.



Implementation:
Using Visual Studio Code and Bootstrap, the final UI mock-up was taken and translated into HTML and CSS in order to begin creating a new web page for the CEOM website. This displays the implemented menus, drop down and download button, as well as an example of a charted CSV file and graph.

Methods

There were 3 main programs that were used to create this web page:

1. Docker – Created containers in order to run code in a way that would not interact with other files on the laptop.
2. Visual Studio Code - Code editor used to write out code in order to create web page.
3. GitHub - Gave another place to save code as well as a way to collaborate with other developers. GitHub was used to merge differences in code and front-end/back-end development.

Next Steps

- Finish implementing final mock-up.
- Create tab with Carbon icon,.
- Complete left-menu.
- Fix whitespace between drop down and button.
- Create working table and graph.