# **Section 1. Web App Architecture**

**Overview**

Do we want to include an overview section?

## **1.1 Data Storage**

We are using an SQLite database, so we are able to use this stand-alone with the application deployment.

## **1.2 Back-End**

The backend will be python. We are creating a Django site. We may use JavaScript for some front end filtering.

## **1.3 Database Access & Security**

Django will allow us to connect to the database with its built in framework. {research how Django does this}

Users will only be able to query the database using defined fields in the application, they will not have access to view or modify any data outside of the provided graphic by default. We are not capturing any new data from the user.

## **1.4 Front-End**

We will be using Bootstrap. HTML pages in Django allow us to imbed python code along with the ability to extend Bootstrap front end CSS. This will give us access to things like crispy forms and other Bootstrap built in functionality that will make front end development easier.

## **1.5 Deployment**

The application will be hosted on PythonAnywhere by Anaconda, which is a web-based server management service for developing with Python.

## **1.6 Interactivity**

We are creating an interactive chart. This app will allow a user to view the actual load data for a user input timeframe, then allow for the user to add various forms of energy generation to see the generation profile make up of that given source. We will have a drop down button to change from fossil fuels to wind, solar, hydro, etc. This data will use the user time input as well to change the chart.

## **1.7 Web Application Architecture**

rough draft\*\*Diagram

Description automatically generated

# **Section 2. Web App Layout**

* What is the initial layout (when a user sees your app first)?
* Where is the menu panel?
* How many pages do you need? Or will you be using Tabs?
* What is the color schema?
* What each page or Tab will display?
* What functionalities will be available and how users will access them (e.g. search/query box/drop menu ...)

# **Section 3. Individual & Team Assessments**

* If you are working individually, please describe your work: [Are you satisfied with the task completion (scale 1-10),  time commitment, what could be done better
* Teams:
  + Describe your personal satisfaction with the task: [Are you satisfied with the task completion (scale 1-10), time commitment, and what could be done better?
    - We need to make sure everyone is participating and work is equally distributed. While the grade is initially provided for the entire team, we reserve the right to change a grade for any individual students who did not fully participate and fulfill their obligations/responsibilities in the project.
  + Let us know if someone is not responding/participating - we will reassign that person to an individual group