**Project Description**

I’ve chosen a Flask framework for building the web app for this project. The excel provided required some cleaning which I did in python and converted to SQLite database as requested. I’ve chosen a simplistic solution and thus used HTML to create a front-end user interface. In order to make the user interact with the dropdown I’ve used JavaScript which is also responsible for plotting the interactive chart as asked.

To see the app running in action I request you to watch the demo

**Python**

**Script 1 - create\_db.py: Responsible for creating the database from the given .xlsx file**

**Script 2 - app.py: Runs the web app using Flask**

**Script 3 - create\_json.py: This script contains some helper functions**

* get\_data: connects with the db and loads the data into data frame format
* create\_json: converts the data frame into JSON

**HTML**

**index.html: For creating a simple front end.**

**Javascript**

**Script.js : This script is responsible for interacting with the HTML and display an interactive chart based on the user’s selection**

**Order of Execution**

1. Open command prompt and navigate to the project folder. Run Script 1 (create\_db.py) first to create the database which will contain the xlsx data in a table named “LumberFut”.
2. Run Script 2 (app.py) to run the web app. Upon running, a URL or the server details will be displayed in the console.
3. Copy the URL and open it on a browser.
4. Select an option from the dropdown to see the interactive chart.
5. Hover over the line to find the exact data.