

Team Light Molecules

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Overview

Imagine you are a light molecule, speeding through space. You take a look down and see the United States, but its all squares because you're a light molecule. Also the squares grow and shrink based upon the net job creation rate.

Description: This site will display the rates of job creation on a map of the United States, in which each state is depicted by a square. At its default stage, the squares will be the same size with equal spacing. Below the map will be an interactive slider, which will allow the user to watch the map change through the years. The size of the squares will grow or shrink depending on that state's rate of job creation that particular year.

Potential Features: Hover over each state to see additional information about the state regarding job creation, job death, number of firms present, etc. Each state will be colored on a gradient or spectrum corresponding to its rates. Using the numbers we have, we could potentially project predictions for the next few years as well.

Why We Care: This map will show the user which areas of the United States are the up and coming hubs of advancement and opportunity. It will illustrate just how quickly some places are booming compared to others.

This can be used when making investments, or when personally deciding where to reside.

Components

File Structure

```
light-Molecule/  
  app.py  
  templates/  
    main.html  
  data/  
    jobs.csv  
  static/  
    js.js  
    d3src
```

app.py:

- **home()** - Routed to `"/`. Displays the data visualization, that's it
- **Read()** - function that reads a csv file and returns a 2d array

main.html

Presents a page with a slider and a map allowing you to move through time and see states grow and shrink. Also, a brief description of the data and the source is stated

Jobs.csv

A csv file containing states and their respective net job creation rates, sorted by year.

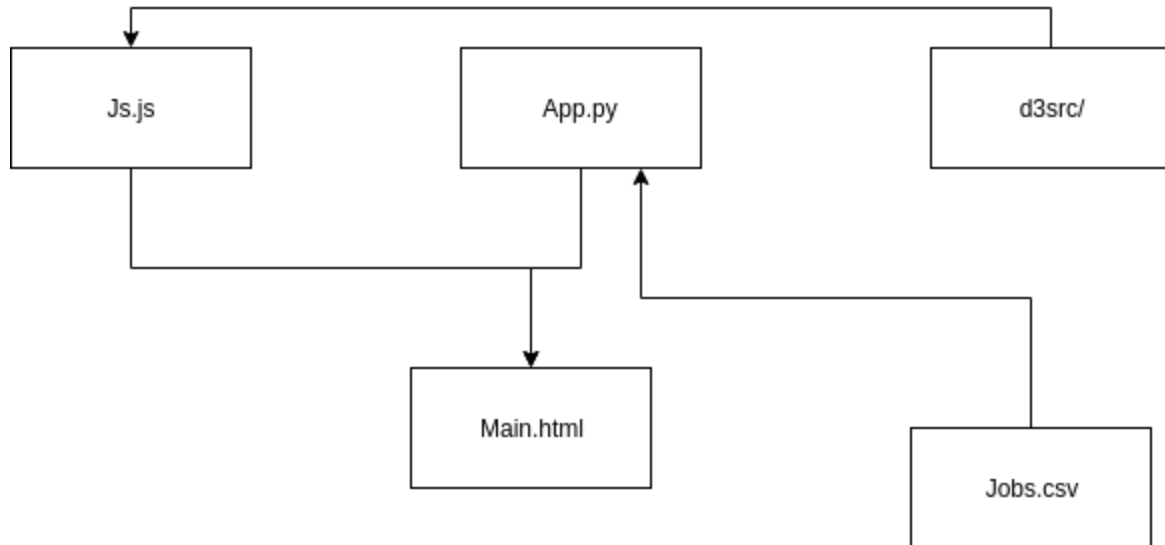
js.js

Functions for growing and shrinking the states, animating that transition, coloration of the states, initialization of the states on the map, mouse-over information display code.

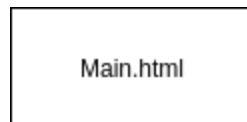
d3src/

The d3 source

Component Map



Site Map



The root of the website is main.html. That is it

Division of Labour

Max- Main d3 backend

Jessica- Python backend, html template

Nicole- mouse-over code, original map populating code

Farhan- parse data into javascript objects to be sent to d3

Schedule

Date	Task
3/31	Flask + template done
4/1	Map populated in its initial state
3/30	Slider functionality
3/31	State resizing in a reasonable manner
3/31	Data mapped to each state
4/1	Hover over information
4/2	Coloration
4/3	Done!