Theme:

Use historical (since 1975) Freddie Mac Home Price Index data for all of the United States to create a map and charts that can be selected via drop-down menu to see how the HPI has changed for each state. The interactive map will have hover points that will show the high and low HPI when that state is browsed over and we will attempt to color-code the map to show a look of that year for the states.

Coding approach:

Using the csv of the Freddie Mac data, will put that into SQL for our database. From the SQL database, will be able to chart the data year-by-year in Python using Matplotlib that we can then show for each state when it is selected from the drop-down. Using D3, will create hover points for the state and color code it using leaflet.

Data munging:

Visualization:

Using drop-down menu to select state and show historical chart of HPI.

State map for a drop-down by year, with states colored to match average HPI for that year. Can then hover over each state for a pop-up of Min and Max HPI for selected year.