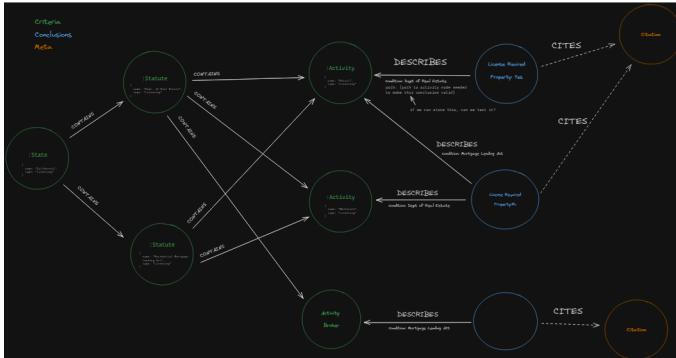


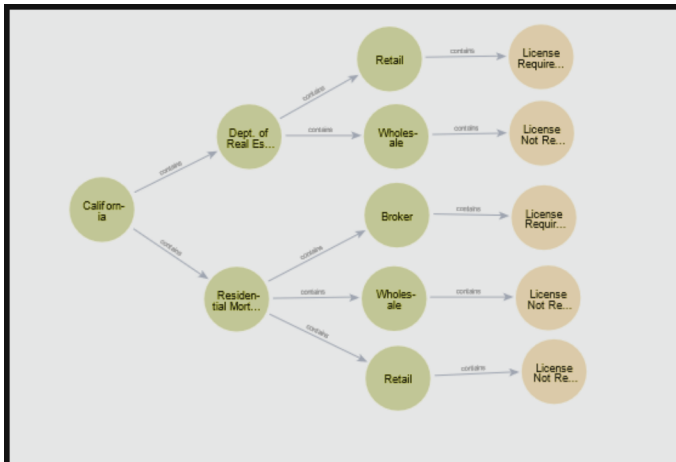
08-02-2024 Meeting Notes

We decided to go with a normalized data model instead of a flattened data model. Meaning we will store individual nodes with many relationships instead of lots of nodes with few relationships.

Example of normalized data model:



Similar data in a flattened model (for reference only, not being used as our data model):



And one option for this data represented as a chart:

State	Statute	Activity	License Required
California	California Dept of Real Estate	Retail	Yes
		Wholesale	No
	Residential Mortgage Lending Act	Broker	Conditional
		Retail	No
		Wholesale	No

We will not store flattened data in our database. We want the ability to re-use a single node in multiple different places in a chart or charts instead of storing many copies of that same node for each place it will be used. We will use relationships to build context for how nodes will be used. So, we will use a normalized data model instead of a flattened one.

Rough definitions for reference:

- Canonical Data: Data used by our front-end to render a chart onto a webpage. Used to define the width and height of a chart, as well as the height, positioning, and contents of each cell in that chart. Holds exact coordinates for each cell and is used for display purposes only.
- Chart Metadata: Information that describes how the types of cells in a given chart should be laid out. Holds relative/general positions for different types of cells. Used to read and unpack the normalized data from our database to create the canonical data for a given chart.

David provided an example of some user-created chart metadata that might help to facilitate in creating the canonical data for a given chart. For now, we don't need to worry about how this chart metadata might be created and we can rely on it being written by hand manually. Eventually, we will have a system in place to let the user pick the preferences described in the chart metadata but we don't need to consider how that will work for now.

Example chart metadata that David provided:

```
Criteria:
State, 1, [
  {California, 1;
    Statute, 2, Relationship, [
      {DRE, 1, [
        Activity, 3 [All or Retail, 1; Wholesale, 2]
      }
      {RMLA, 2, [
        Activity, 3, {All or Broker, 1; Retail, 2; Wholesale, 3}]
      }
    ]
  }
  {Oregon, 2;
    Statute, 2, [
      {MLA, 1, [
        Activity, 3, {}
      ]
    ]
  }
]
Conclusions:
License Required
```

We're coming into this with these components already built:

A graph database containing the normalized data from the example above

A backend to facilitate running queries against the database and parse the results

A front-end system to render canonical data as a chart

Mitch will avoid doing any planning and instead focus on writing code. Mitch will move forward with immediately prototyping the format for the chart metadata and system to build the canonical data. The canonical data should be built iteratively using the preferences stored in the chart metadata to unpack the normalized data stored in our database.