City Rank

Simplify your next big move with big data and a clean user interface for specifying preferences for affordability, political affiliation, and overall civic happiness.

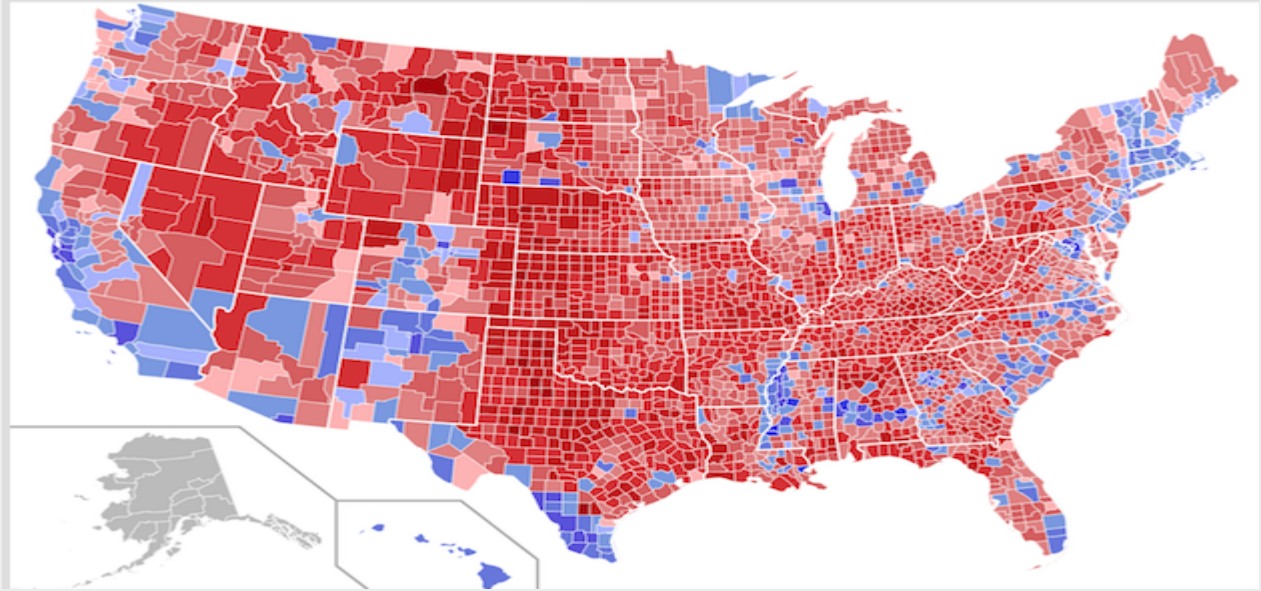
Indentify cities that align with your personal beliefs and priorities while putting your stereotypes aside.

The Problem Addressed

- Looking at multiple resources for an idea on a great place to move.
- Consolidating your search and having your recommendations totally unbiased and based on data.

API DATA

Political Data by County



Median Home Price

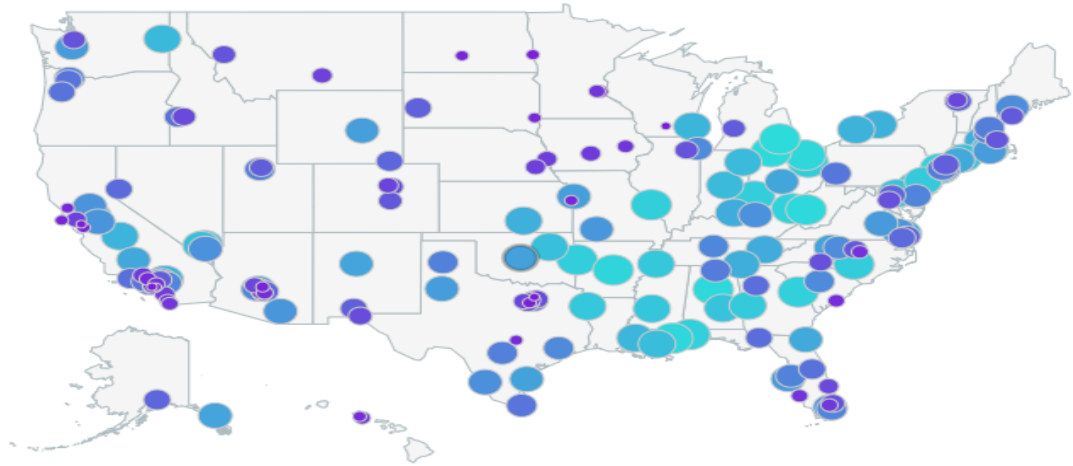
What is the American Community Survey?

The American Community Survey (ACS) is an ongoing survey that provides vital information on a yearly basis about our nation and its people. Information from the survey generates data that help determine how more than $675 billion in federal and state funds are distributed each year.


```
[
    "91800",
    "Pickens County, Alabama",
    "01",
    "107"
],
[
    "69500",
    "Sumter County, Alabama",
    "01",
    "119"
],
[
    "149000",
    "Jefferson County, Alabama",
    "01",
    "073"
],
```

Civic Happiness

Main Findings



Happiest Cities in the U.S.

Overall Rank (1=Best)	City	Total Score	'Emotional & Physical Well-Being' Rank	'Income & Employment' Rank	'Community & Environment' Rank
1	Plano, TX	72.30	7	6	8
2	Irvine, CA	71.86	14	11	5

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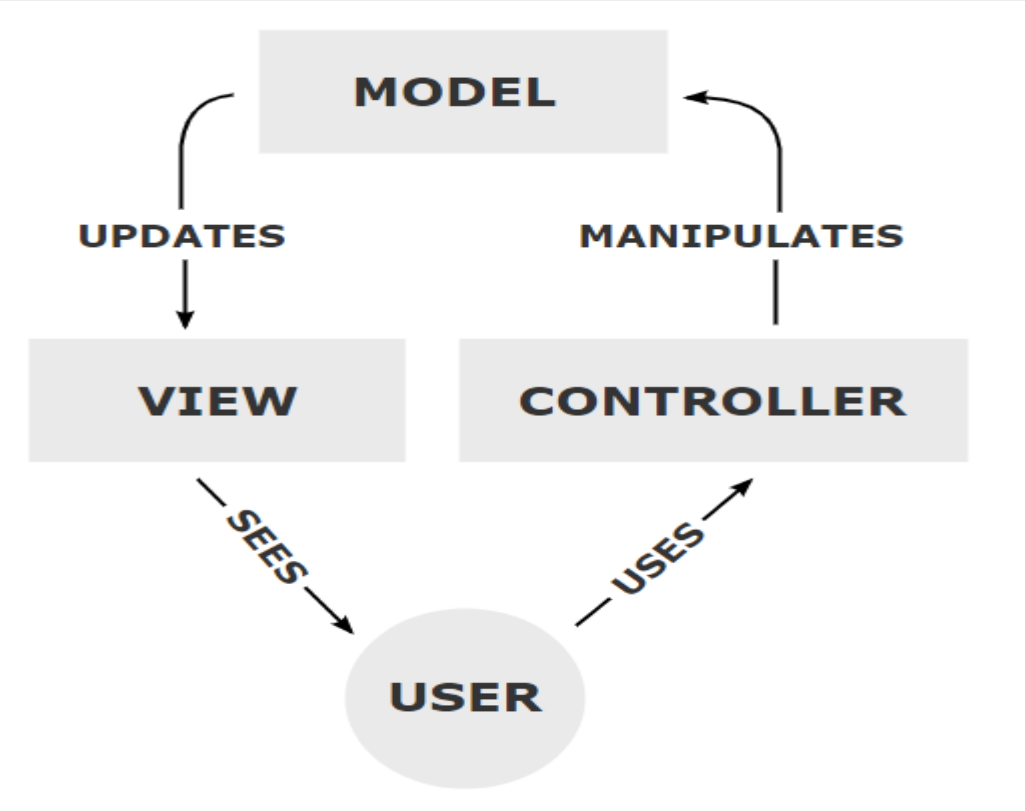
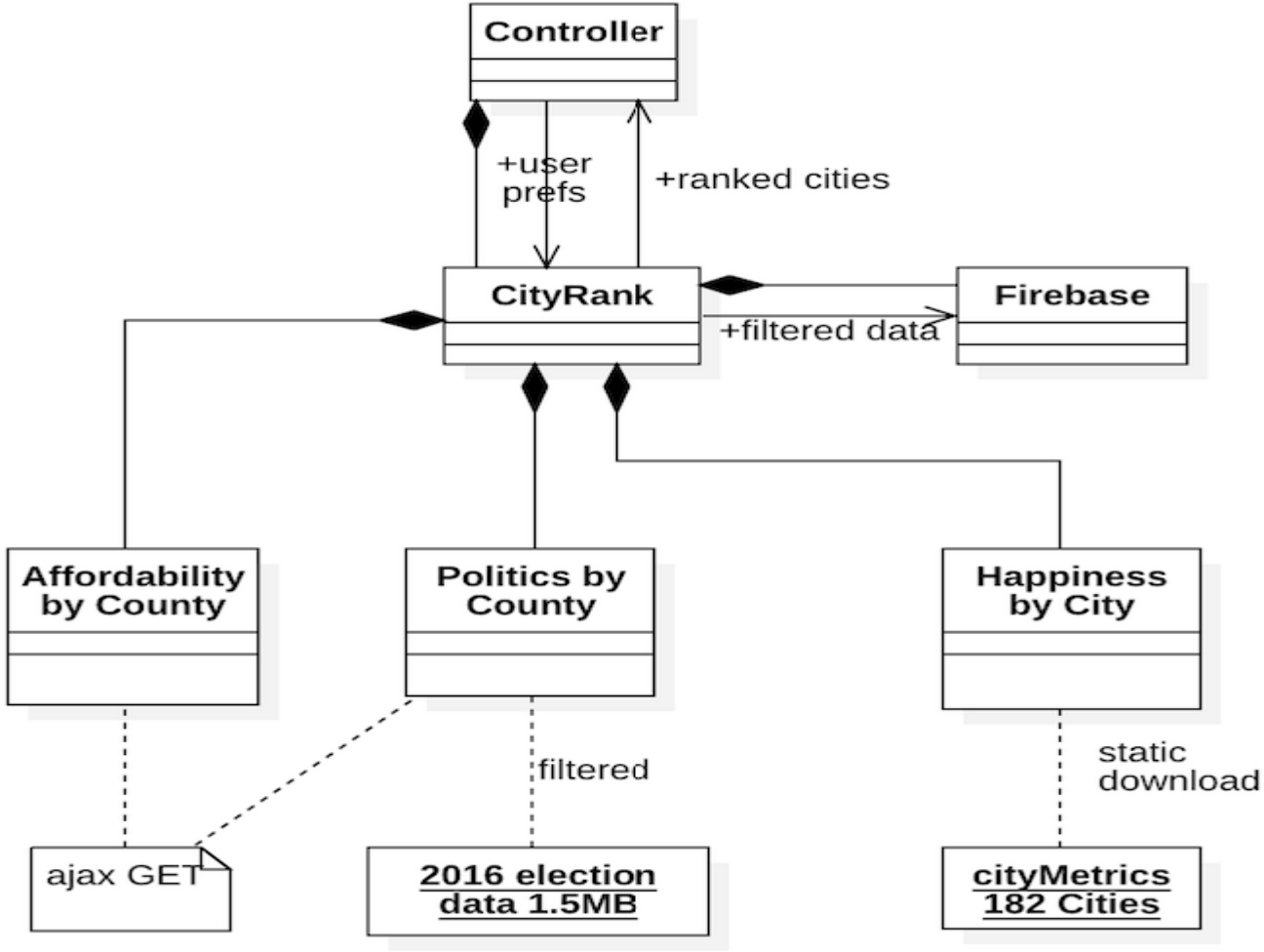
Model View Controller Structure



CityRank UML Class Diagram



From an MVC perspective, the CityRank object /is/ the model, encompassing several sub-model objects that amount to thin object wrappers around static or dynamic data.

This code snippet in the CityRank constructor illustrates where most of the composition is happening:

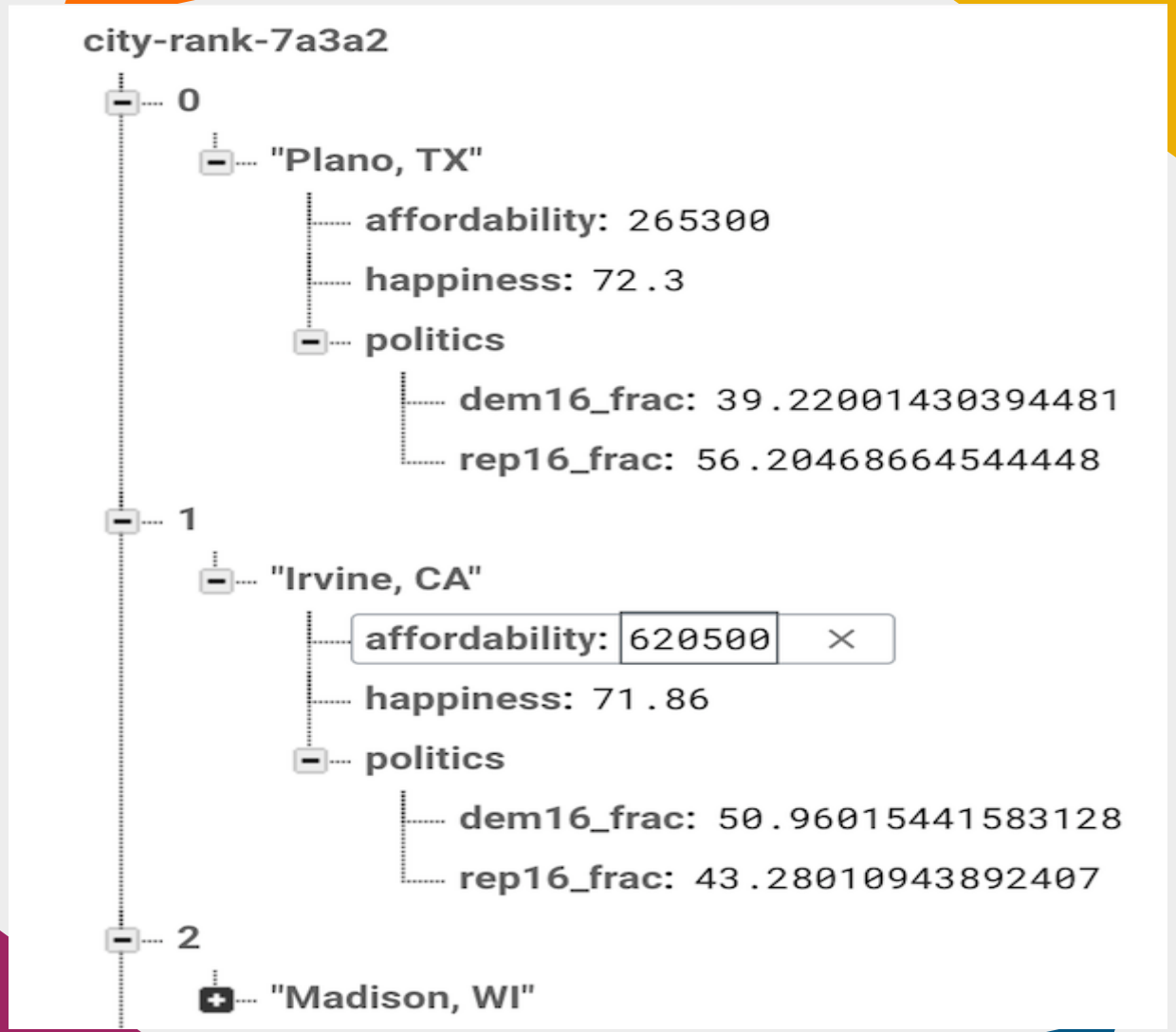
```
function CityRank(dbConfig) {
    this.ca = new CountyAffordabiity();
    this.cm = new CityMetrics();
    this.cp = new CountyPolitics();
    this.cpFields = ["rep16_frac", "dem16_frac"];
    this.fb = new Firebase(dbConfig);
}
```

The other focal point is the controller itself which mediates input from the user and communicates with the model to send user preferences and receive ranked cities in return. The constructor looks like this:

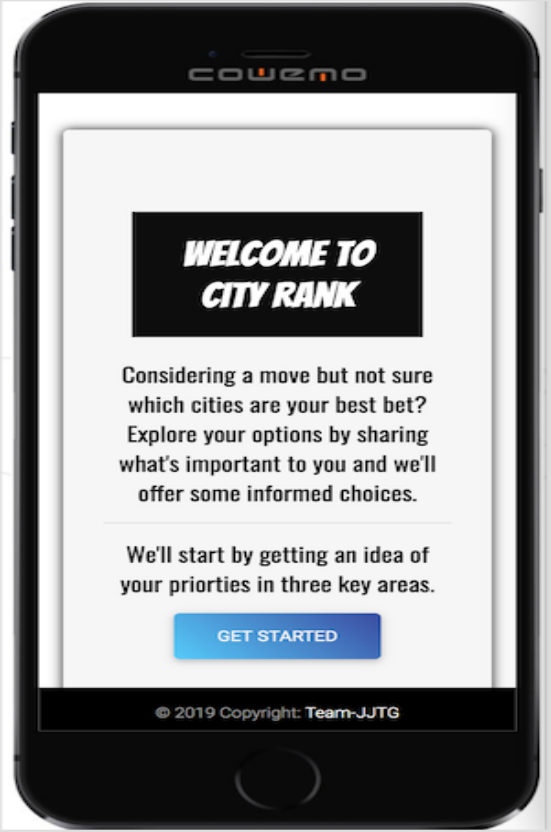
```
function Controller() {
    this.cr = new CityRank(Firebase.prototype.glennDbConfig);
    if (this.cr.fb.dataFromFB.length < this.cr.fb.expectedDbLength) {
        console.log("Controller: Filtering and publishing city data to firebase.")
        this.filteredData = this.cr.filterData();
        this.cr.publishData(this.filteredData);
    } else {
        console.log("Controller: Using persisted data from firebase.");
    }
    this.resetView();
    this.setClickHandlers();
    this.writeResults = this.getWriteResultsCallback();
    this.userPrefs = {"happiness": this.hapVal, "affordability": this.colVal, "politics": this.polVal};
}
```

Starting the app is simply a matter of instantiating the controller:

```
<!-- JavaScript -->
<script type="text/javascript" src="assets/js/app.js"></script>
<script type="text/javascript">
    $(document).ready(function () {
        let controller = new Controller();
    });
</script>
```


city-rank-7a3a2
0
"Plano, TX"
affordability: 265300
happiness: 72.3
politics
dem16_frac: 39.22001430394481
rep16_frac: 56.20468664544448
1
"Irvine, CA"
affordability: 620500
happiness: 71.86
politics
dem16_frac: 50.96015441583128
rep16_frac: 43.28010943892407
2
"Madison, WI"

Front End


cowemo
WELCOME TO CITY RANK
Considering a move but not sure which cities are your best bet? Explore your options by sharing what's important to you and we'll offer some informed choices.
We'll start by getting an idea of your priorties in three key areas.
GET STARTED
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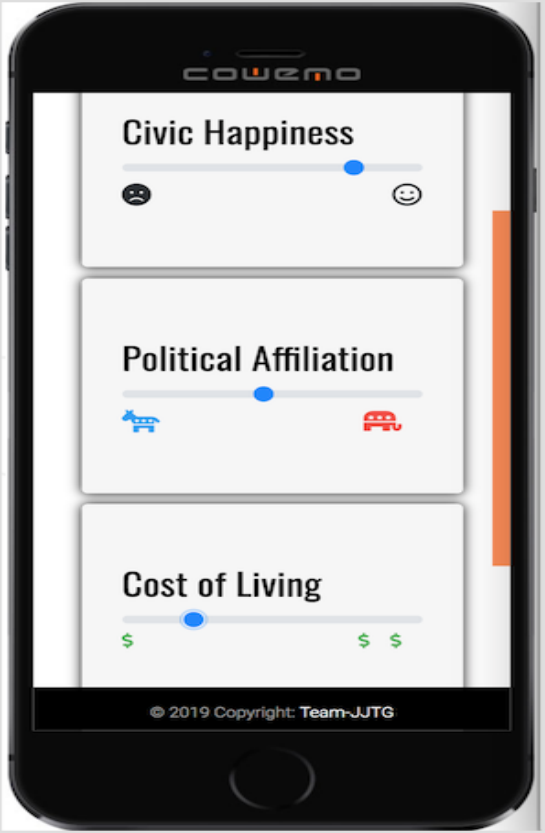
cowemo
Civic Happiness
Political Affiliation
Cost of Living
$
$ $
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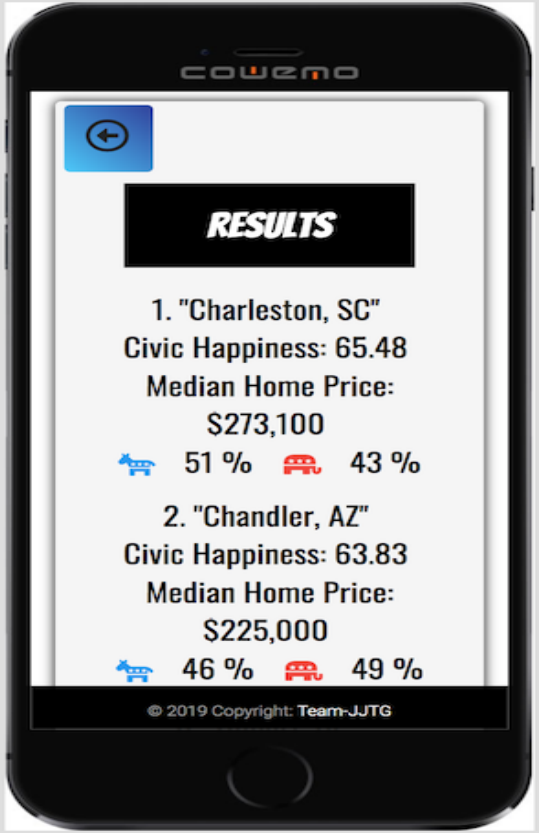
cowemo
RESULTS
1. "Charleston, SC"
Civic Happiness: 65.48
Median Home Price:
$273,100
51 %
43 %
2. "Chandler, AZ"
Civic Happiness: 63.83
Median Home Price:
$225,000
46 %
49 %
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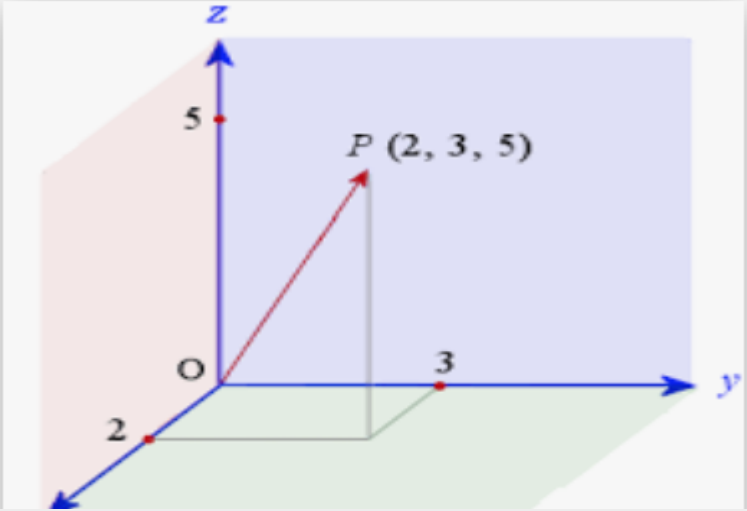
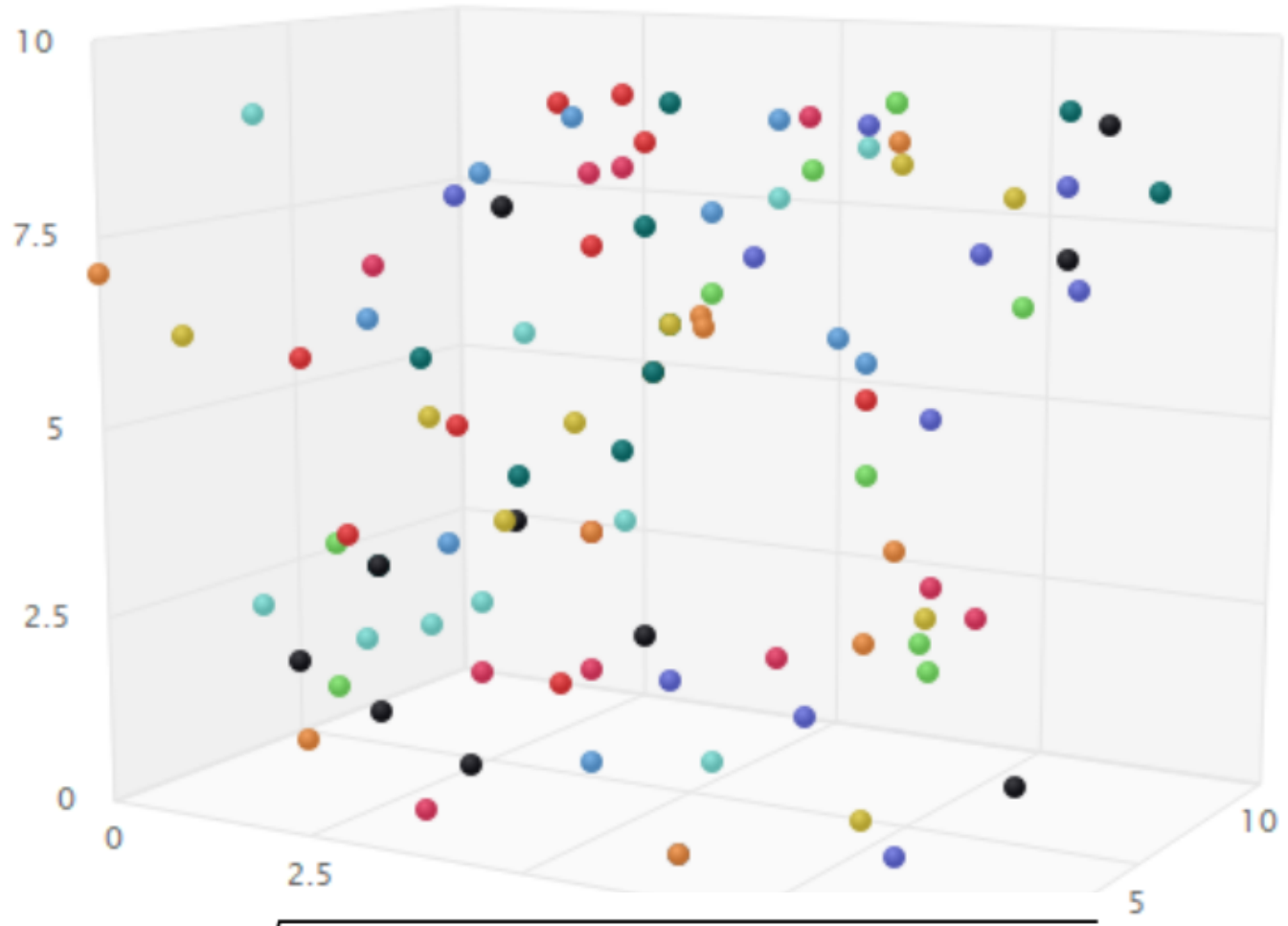
Ranking

You can think about a user's preferences as existing at a point in three-dimensional space, with each preference lying on a separate axis (for affordability, politics, and civic happiness):





$$\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2 + (z_2 - z_1)^2}\ .$$

Release 2.0

- Job Title
- Data related to county, not city
- Map Visualizations
- Weather API