Visualization Application

Shin Gao (tg2618)

Data source: https://data.world/shinnknight/software-engineer-career-condition/workspace/file?filename=citi.xlsx

This is an interactive platform to help the junior professionals better understand the life condition in different cities in America.
In the Alpha version, the service is only for the software engineer, since it seems to be one of the most popular positions currently.

After log into the platform, you can see the interface as below.

Analysis:

This is a general table and list all the optional cities in America which offer Software engineer positions online.

On the left side, the user could choose other job positions and choose the conditions they care about. For example, if you want to limit the annual salary to filter the output. Just tick the "Annual Salary" box, and set the range, also you could set the weight on that condition then the result will be updated to fit your setting.

Also, there is an underlying algorithm here, after you choose any conditions, the backend will score each city based on the setting and rank the cities. The table shown here is an ordered list of the fit cities.

Position:	Weight		Datatable	Map

Software Engineer ▼

☐ State:

☐ Total employment:

☐ Employment density(per 1000):

✅ Annual Salary:

0 | 65,000 ─── 145,000 | 29 | 100

0   30,000 60,000 90,000 120,000 150,000

☐ Hourly Salary:

Show [10 ↕] entries

|	STATE ⇕	City ⇕	Total Employment ⇕	Jobs (per 1000) ⇕
1	AL	Birmingham	1450	2.864
2	AL	Huntsville	2790	12.803
3	AL	Mobile	310	1.783
4	AL	Montgomery	310	1.883
5	AR	Fayetteville	1280	5.471
6	AR	Little Rock	620	1.824
7	AZ	Flagstaff	120	1.883

On the next tab, you could visualize the output data table, in many ways.

For example, the user could plot out the distribution of hourly salary. So he or she could have a rational expectation of his or her future hourly salary.
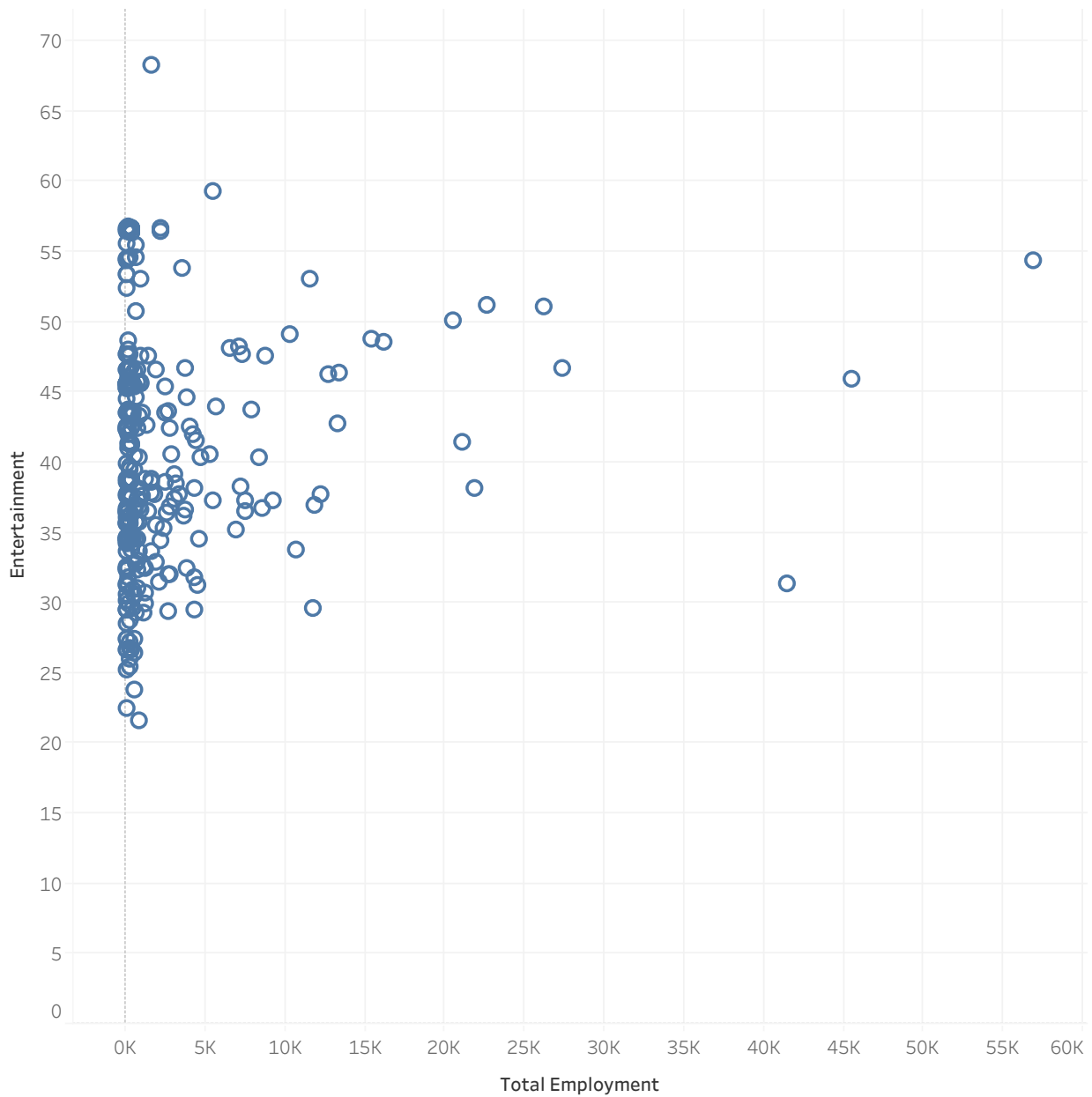
Hourly Salary Distribution
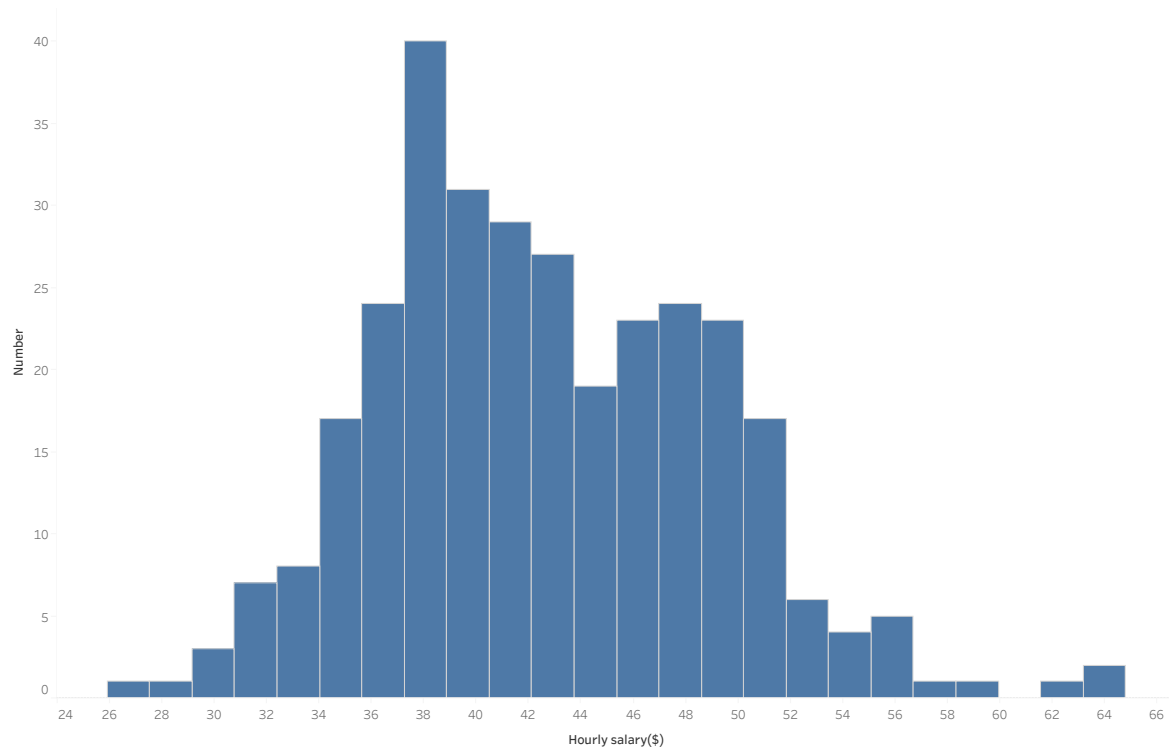
The user can also show the data on the map, for example, they can see how rental fee is like in different state.
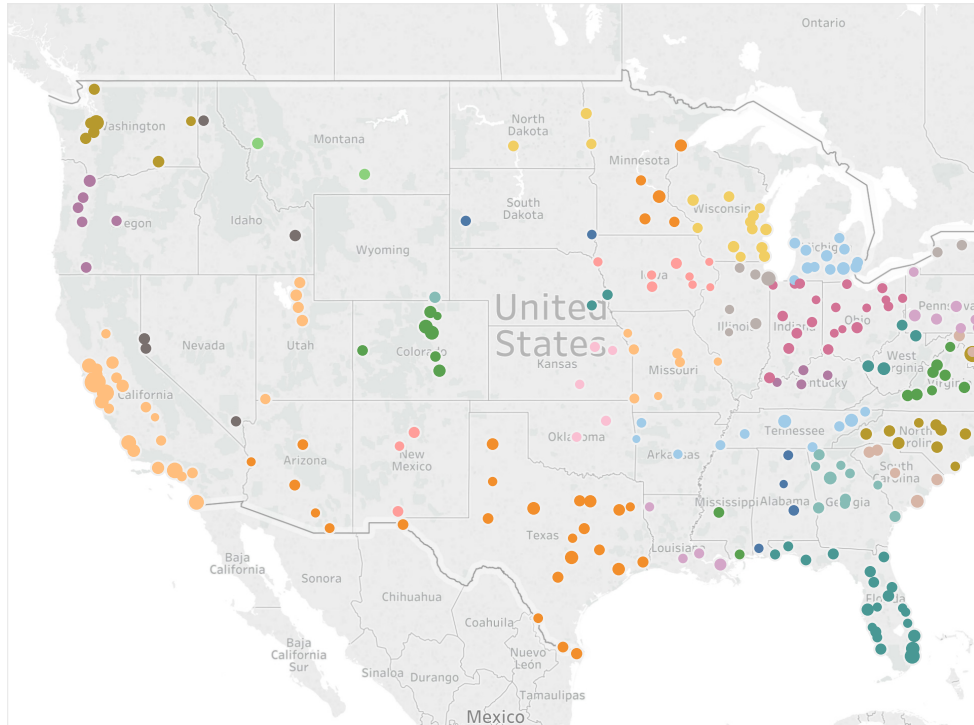
The user can also display the relationship between different variables. For example, the relationship between Entertainment ~ total Employment.

Storyboard:

The first page (data table)

-> switch tab (show data visualization chart).

-> switch tab (show map noting the chosen cities)