**Redesign Project – Best state to live in USA**

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**Subject** –

Aim of the project is to provide a visual representation for the data collected from different sources to analyze the quality of life in different states in USA. The data used here is collected in 2016-2017 for different categories.

- Population density is good indicator for how the state was preferred previously.

- Tax collection is a good indicator for employment prospect.

- Human development indicator can tell us how infrastructure, health system is developed.

- Crime rate can be a good indicator for how state is safe. Few samples from each data source are included below.

**Data source -**

Tax collection data:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rank | State | Gross Collection | RPC | GSP |
| 1 | California | $405,851,295 | $10,408 | 16.6% |
| 2 | Texas | $279,904,425 | $10,204 | 17.1% |
| 3 | Florida | $269,716,999 | $13,659 | 18.5% |

Population Density -

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| State | Density Rank | Density per Sq ml | Pop Rank | GSP | Population | Land Rank |
| Alaska | 56 | 1 | 49 | 16.6% | 738,432 | 1 |
| Texas | 32 | 105 | 2 | 17.1% | 27,469,114 | 2 |
| California | 17 | 251 | 1 | 18.5% | 39,144,818 | 3 |

Human Development Index -

|  |  |  |
| --- | --- | --- |
| Rank | State | HDI |
| 1 | Massachusetts | 6.18 |
| 2 | Connecticut | 6.17 |
| 3 | New Jersey | 6.12 |

Crime Rate -

|  |  |  |  |
| --- | --- | --- | --- |
| State | Population | Annual Crime | Violent Crime per 100 |
| Alaska | 56 | 1 | 49 |
| Texas | 32 | 105 | 2 |
| California | 17 | 251 | 1 |

**Problem with Data source -**

Tabular data is not an easy way to analyze any pattern or conclude any impact of one index over other without any good visual representation. Here the attempt is to decide how we can select best state to live in based on infrastructure, Employment opportunities and low crime rate.

**Redesign –**

Combined table –

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Code | Name | DEN | TAX | HDI | SIZE | CRM |
| AL | Alabama | 95 | 25 | 4.04 | 30 | 47 |
| AK | Alaska | 1 | 6 | 5.06 | 1 | 73 |
| AZ | Arizona | 60 | 42 | 4.89 | 6 | 41 |

I have used Linked Micromap to visualize the impact of each index on quality of life in state. Below steps are followed in generating a linked Micromap –

* Sorted all states based on Human development index.
* First Micromap is based on population density for each state. Population density against HDI can show how state was preferred against infrastructure development.
* Second Micromap is based on Tax contribution of each state. Tax contribution is good indicator for employment growth in a state. This against HDI and population density is good indicator for how state was preferred for high paying jobs.
* Third Micromap is based on crime rate in a state. This is a good indicator for the safety.

**Conclusion –**

* Based on the plot, we can easily conclude that state with high HDI are relatively less dens states.
* Tax contribution is average to high and crime rate is low.

**Implementation –**