

TeamDK

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Domain

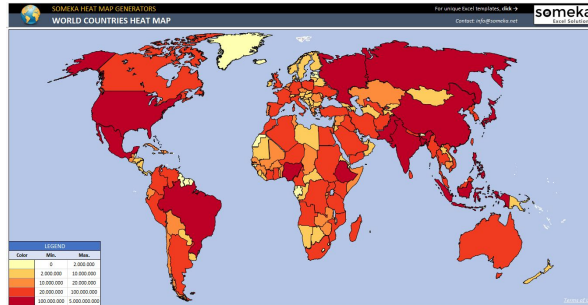
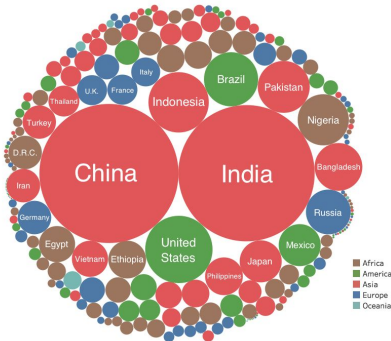
- The domain of framework is numerical data that has to do with countries. We will be using [OurWorldInData.org · Apiary](https://data.un.org/Default.aspx) as an API to interact with our world in data's database. Additionally, our plugins will support local CSV files extracted from <https://data.un.org/Default.aspx>.
- These types of data sets involve quantitative features, such as life expectancy and categorical data, such as countries within a continent (obviously).
- The framework will involve translating data into visualizations that can display comparisons between two features- one quantitative and one categorical. We will also provide the ability to focus on one country over a specified time period.
- There is a lot of room for reuse, since it is quite common to display data that compares counts of a field based on a category.
 - Bar charts
 - Pie charts
- The framework should be able to support datasets in both csv and json (through API) formats. Two different data plugins will be implemented to do this- one that is specific to the API, and another that parses a csv converted dataset from a different source.

	Response Body	Real	Diff	Specification
01	{			
02	"success": "true",			
03	"data": [
04	{			
05	"id": "3905",			
06	"value": "391.3",			
07	"variable": "Household income",			
08	"from": "1700-01-01 00:00:00",			
09	"to": "1799-12-31 00:00:00",			
10	"entityId": "46"			
11	}			
12]			
13	}			

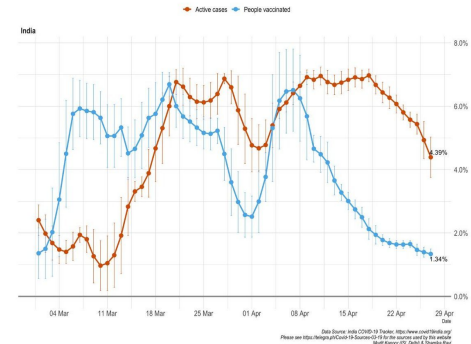
Generality

- The framework is unique in that it displays information about multiple kinds of data: categorical and numerical. This is very generalizable. Our data opportunities are expansive, but still within the scope of country-related data. For example, data could be the current population/GDP/crime rate of each country, or could be any of those statistics for a given country over a time period.
- The visualizations of choice will tentatively be a bubble graph and a heat map- as it is a unique type of graph while still being relevant to the data plugins used. We have also considered a time series plot, and the group plans on implementing two of those visualizations.

Countries by Population Size



Average growth rate (in last 7 days)



Plugin Interfaces

Split into three components- data, visual, framework

- Data extraction
 - `importData()`
 - `getOptions(ArrayList<String> options)`
- Visualization
 - `filterByCategory()`
 - `chooseData(), chooseDataByField()`
- Framework - integration and data cleaning
 - `assignNullValues(), removeNullValues()`
 - Setup -> `onRegister(), onEnd()`