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CSCIE63 Big Data Analytics
Assignment 9

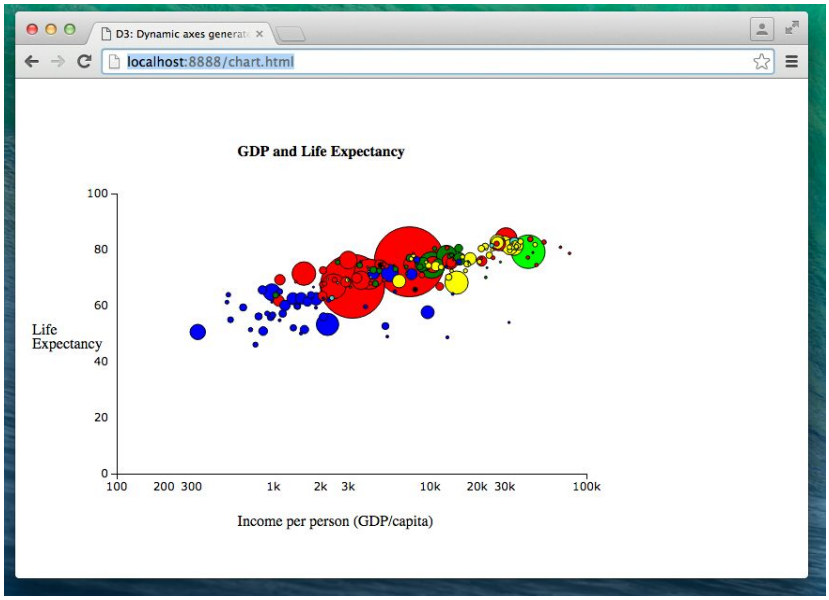
Assignment 9 Solution

Problem 1) Public site GapMinder.org presents many excellent visualizations of data about the World. One such presentation (http://www.gapminder.org/tools/bubbles#_) displays average life expectancy in year as a function of average income per person in countries of the world. Countries are represented as circles in different colors depending on their continent, e.g. countries in Europe are yellow, countries in Asia, red, etc. Every country is presented by a circle of area proportional to its population. Radius of the circle is therefore proportional to the square root of population. As the cursor hovers over each country, its name appears over its circle. Data presented in this graph can be found in various Excel files provided by the same site (http://www.gapminder.org/data/). We extracted some files which we believe contain data used in the graph bellow:

Please recreate above graph using D3 or any similar technology of your choice**.** You do not need all data present in provided Excel files. Select most recent data for every country. If you know what you are doing, keep your data in files on your OS or in a database of your choice. Otherwise, copy relevant data directly into your “HTML/JavaScript” code. Please note that the horizontal axis is logarithmic.

```
// The python server is started inside the project directory
Ryans-MacBook-Pro:hw9 Ryan$ python -m SimpleHTTPServer 8888 &
[1] 3268
Ryans-MacBook-Pro:hw9 Ryan$ Serving HTTP on 0.0.0.0 port 8888 ...
127.0.0.1 - - [08/Apr/2016 16:56:37] "GET /chart.html HTTP/1.1" 200 -

// http://localhost:8888/chart.html is visited with the browser.
```

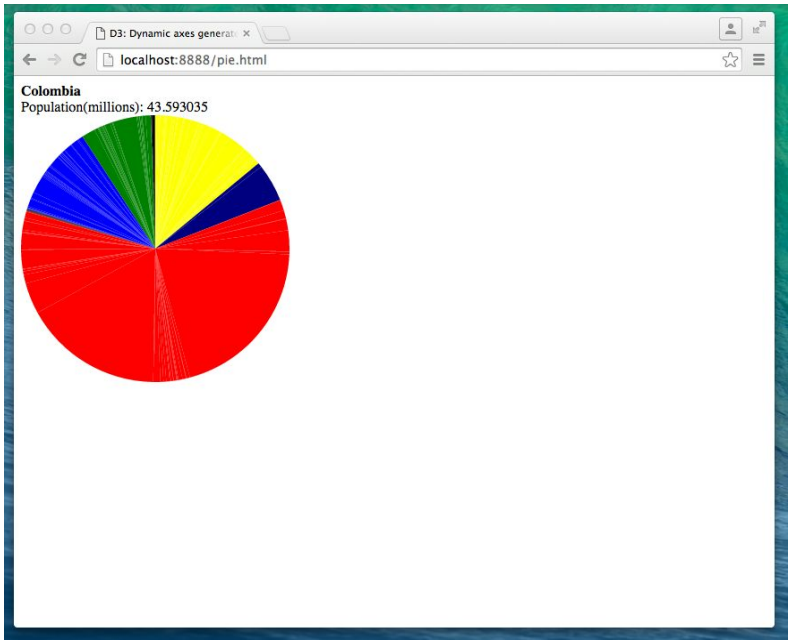


// The code is located in chart.html and not embedded as requested.

Problem 2) Display the graph of population per country as a pie chart. Color countries by the continents and group all countries by the continents. Leave no separation between different countries, however, when you hover over a country change it color to light purple and display its name and population in millions.

// The python server from earlier is running and supports the pie chart
Ryans-MacBook-Pro:hw9 Ryan$ python -m SimpleHTTPServer 8888 &
[1] 3268
Ryans-MacBook-Pro:hw9 Ryan$ Serving HTTP on 0.0.0.0 port 8888 …
127.0.0.1 - - [08/Apr/2016 16:56:37] "GET /chart.html HTTP/1.1" 200 -
127.0.0.1 - - [08/Apr/2016 18:56:23] "GET /pie.html HTTP/1.1" 200 -

// http://localhost:8888/pie.html is visited with the browser



// The code is located in pie.html and not embedded as requested.