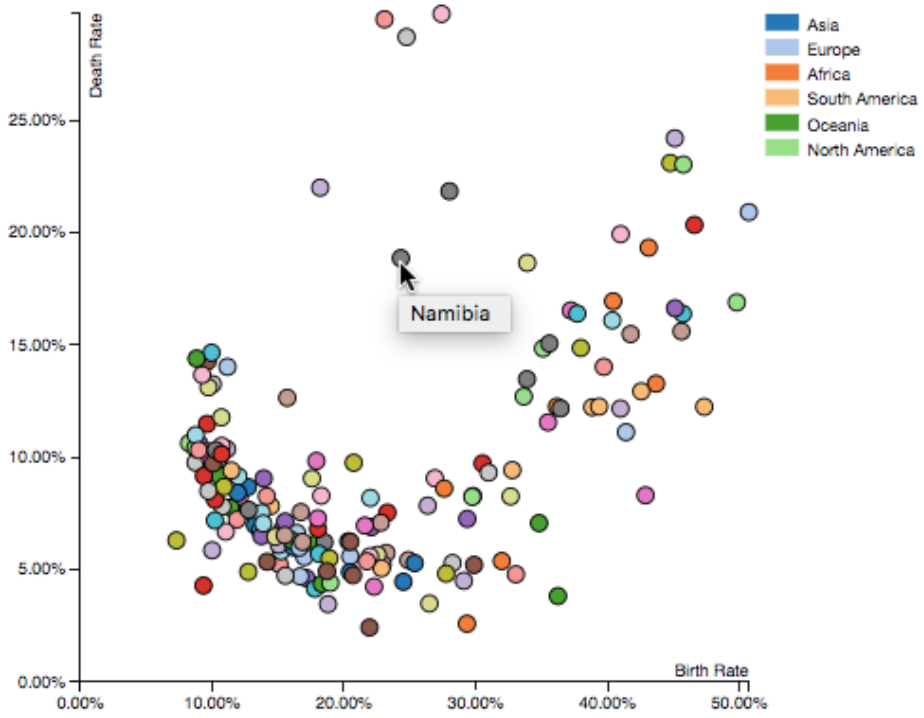
Assignment 1

In this assignment, you are expected to create a scatterplot which is sometimes called bubble plot. Scatterplots are effective for abstract tasks of providing overviews and characterizing distributions, and specifically for finding outliers and extreme values. Also, it is highly effective for the abstract task of judging the correlation between two attributes.

You are going to work on a dataset of country statistics of 169 different countries/regions around the world which includes 14 statistic descriptors, such as, population, area size, GDP, birth rate and death rate. The dataset is given in "countries_of_world.csv". The following figure shows how your scatterplot should look like.



Requirements:

1. Creating a scatterplot of Birth Rate and Death Rate (vertical axis 15, horizontal axis 15, data points 15, legend 15);
2. Adopting percentage scale to both axes (15);
3. Using color to encode regions (15);
4. Adding a tooltip to a data points which will show the name of the country when a mouse hovers on it (10);

Bonus:

As you may notice, some data points are overlapping in the figure. So, please develop a remove function which is able to remove a point with a click on it (5).

Before you start:

In this task, yo**u** need to load the CSV file from our local disks. However, some browsers do not allow users to reading local files due to security reasons. One solution is to build a **local web server** on your laptop. This can simply be done with Python by the following steps,

1. open a terminal window
2. navigate to the directory where your html files in: **cd** the path to your folder
3. For Python 2 input: **python –m SimpleHTTPServer 8000**
   For Python 3 input: **python –m http.server 8000**
4. start a web browser, visit the address: **http://localhost:8000**, the files in your entire directory are listed there.