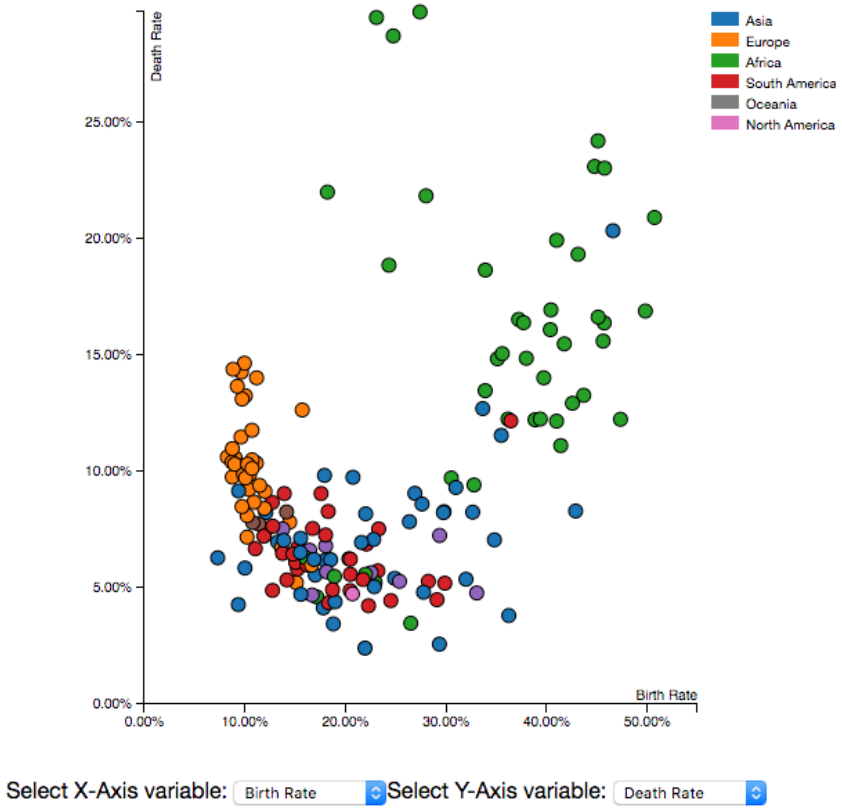
Assignment 2

In this assignment, you will handle the multiple-dimension data with D3.js. We have built a scatterplot in Assignment 1, but it only shows the relations between two attributes: Birth Rate and Death Rate. Actually, we have 14 attributes in the given dataset, so there are 91 different attribute pairs in total. In order to observe the relation in each attribute pair, we have to draw 91 Scatterplots. Of course, it is inadvisable and intractable to plot so many figures in a web page. One solution for this is to use drop-lists.

You need to design two drop-lists for x-axis and y-axis respectively, which allows users to select the attributes, and naturally, the scatterplot should switch along with their selections. Besides, you will put your animation designs into the scatterplot. When the attributes are switched, the plots should shift to their new positions correspondingly. You need to design animations for this progress and implement them with d3.js. The following figure is an example. You can also refer to the enclosed "Assignment2example.mp4" for details.



Requirements:

1. Creating drop lists for both axes (20);
2. Updating the axes and data points in the scatterplot according to the selected attributes (20);
3. Adding animation to the data points when they shifting to new positions (20);
4. Adding animation to the points: When the mouse hovers on a point, it will be enlarged; when the mouse moves out, the point will turn back to normal size (20);
5. Zoom in/out is enabled (20).