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Design process

Domain problem characterization:

The target audience of this visualisation is the general public. The meaning of fertility rate is explained in the text, so that everyone will understand what this is.

Operation and data type abstraction:

Raw data from the world bank is converted to json format using python. Within the javascript file itself this is converted again to two associative arrays for each graph respectively. For the loading of the linegraph an *countrycode : datapoints* array is constructed. For the loading of the datamap a *countrycode : color* array is constructed.

Encoding technique design:

The fertility rates are encoded by color in the datamap, and by color and position in the linegraph.

As for interactivity, clicking on a datapoint in one graph will upgrade the other graph. When a datapoint is clicked in the linegraph, the datamap will update to this year for the whole world. This allows comparison of different countries in time. If a country is clicked in the datamap this will load the linegraph for that country, allowing the user to explore that country's relative past or future.

Last, there's the timelapse button. This will show the change in fertility rate in the world over the years. This really shows the global trend in the fertility rate.

Algorithm design:

The loading of the different two graphs is done by two different functions. This allows events in one graph to change the other graph by calling on the other graphs loading function.