Design process
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- Finding the right dataset was the first step of the whole process. I decided to create the map of the USA because I have always had great affinity for America. While looking for datasets, I found it very interesting to see the distribution of the population across all the states. Besides, I already had an idea how to visualize this variable on the map. For the second visualization I chose to use the annual amount of newborn babies for each state, because this amount is (strongly) related to the population variable in the first visualization. The amount of newborn babies is positively related to the amount of population.
- The next step was to create the USA map using a json file containing all state info. It was very challenging to find a right way to link the data to the svg, but after a day full of errors, I finally made it.
- I added the colors to the map representing the population values. Finally, I created the tooltip that shows the state name and population value when you hover over a particular state.
- The next step: how to visualize the amount of newborn babies per state? I decided to create a bar chart, because I wanted to show annual data (one data point per year). After analyzing the required readings, a bar chart seemed to me the most appropriate. Because I made a bar chart in week 3, I could use part of that code. I adjusted it where needed, added more elements and stored this in the 'createBarchart' function. Afterwards, I created the tooltip that shows the amount of newborn babies when you hover over a particular bar.
- After finishing both visualizations separately, the next step was to link the visualizations. This step was quite 'easy'. I ensured that when you click on a state on the USA map, the chosen state name is given to the 'update' function. This function updates the existing bar chart. I tried to make the code as efficient as possible. That is why only the necessary parts of the bar chart are updated when the update function is called. I also added a transition function to the update function (for the bars and for the y-axis) to smoothen the visualization when clicking another state.
- Thereafter, I added bootstrap to the project. I created a navigation bar at the top of the webpage. Via the buttons on the navigation bar, you are linked to 'Story behind the data', 'Data source' and 'About me'. When you click on the 'Data source', you are linked to the US Census Bureau webpage. When you click on the 'About me', you are linked to my personal Facebook page (high-tech!!!) and when you click on the 'Story behind the data', you are linked to a separate html file that contains 2 paragraphs about the data. In this way, the project is structured.
- The final step was to add an interactive bootstrap element. I decided to create a search box, so that people can just type in the state they want to analyze, without knowing the geographical location. An alert message is shown if they did not input a valid state name.