

Questions

Data Processing / Week 3 / Jasper Naberman / 10787224

- How can D3 access and change the DOM? What do select and selectAll do?
 - D3 can access and change the DOM by selecting a specific part of the DOM and then changing it's contents. It can also add things to the existing DOM. 'select' selects an element with a given argument, 'selectAll' selects all the elements of a given type argument.
- What are the d and i in function(d){} and function(d, i){}?
 - The d refers to data that is bound to an element selection. The i refers to the index of the element in it's selection. This is used for positioning.
- Write sample lines of JavaScript to add a div element with class "barChart1" and to add an svg element with class "barChart2" with square dimensions.
 - `var div = document.createElement("div");`
 - `d3.select("div").className = "barChart1";`
 - `d3.select("body").append("svg").attr("width", 200).attr("height", 200);`
 - `d3.select("svg").className = "barChart2"`
- Describe append, update, enter, and exit at a high level. What does "selectAll + data + enter + append" refer to?
 - append adds an element to the end of the DOM. Update means to change something in the current DOM. Enter means to put any leftover data in the enter selection. When appending that selection you can access and use that data. Exit means to select and contain all elements that have no bound data. "selectAll + data + enter + append" refers to selecting all leftover data and appending it to new elements.
- What are the main differences between drawing a bar chart with HTML and SVG?
 - You can create more advanced visualization. SVG can be modified with CSS where HTML can't. SVG has multiple elements in the DOM, which all can separately be edited.
- In drawing the simple bar chart with D3 and SVG, what elements were appended, and what parts of the graph did these elements correspond to?
 - The elements "g", "rect" and "text" were appended. The "g" element corresponds to a given bar, which in turn contains the other two elements "rect" and "text". "rect" specifies the size of the bar where "text" represents the height of the bar in text-format.