

Questions Data Processing Week 3

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1. How can D3 access and change the DOM? What do select and selectAll do?

D3 accesses and changes the DOM by finding a path in the file and search the locations of the things it wants to Select selects a certain part of the html based on the tag and selectAll selects all the html tags with the same tags (upon giving the tag as parameter).

2. What are the d and i in function(d) and function(d, i)?

The d represents the data and i is the index number of the element

3. 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.

```
d3.select("body").append("div").attr("class", "barChart1").html("Hello World")
d3.select("body").append("svg").attr("class", "barChart2").html("Hello World")
```

4. Describe append, update, enter, and exit at a high level. What does “selectAll + data + enter + append” refer to?

Append creates a new element in a certain place in the html file. The enter statement prepares the new appended element for every item from the data that is currently unmatched. SelectAll can be used to in combination with this to select all the right elements, followed up by the append enter combination as said above. Exit is used to the opposite of enter.

5. What are the main differences between drawing a bar chart with HTML and SVG?

When drawing a shape of the chart with HTML, you just draw a pretty figure on the screen. When drawing a shape with svg, it is saved as an object, so you can alter it in a later stadium. It is better for an interactive system in which you want to assign certain actions towards the figures (chart).

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 rectangles (as we are talking about a chart), are all appended with their right values.