

Questions D3, Homework week 6

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

D3 can access and change the DOM by using `select` or `selectAll`, and then selecting the body of a html page for instance, to alter or change the DOM. `select` only selects the first concept given, and `selectAll` selects all the concepts (for instance `selectAll("p")`, selects all `<p>`'s in an html page.

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

The `d` stands for the input value that is given and the `i` responds to the index of the data.

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.

```
Var body = d3.select("body")
```

```
Var div = body.append("div").attr("class", "barChart1")
```

```
Var svg = body.append("svg").attr("class", "barChart2").attr("width", 100).attr("height", 100)
```

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

`Append`, is that something is added to which it appends to

`Update`, is that an update is conducted when elements might have been changed/deleted.

`Enter`, is when an entirely new element is being created

`Exit`, is when elements are removed.

"selectAll + data + enter + append", refers to that for all data, something entirely new is added and something is appended to that.

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

HTML can deal mainly with rectangular shapes, but supports flow layout and text wrapping.

SVG supports various drawing primitives, but is always positioned relative to the top-left corner.

6. In drawing the simple bar chart with D3 and SVG, what elements were appended, and to what parts of the graph did these elements correspond?

The `svg` part was appended, so was the class called `barChart2`. And the width and the height would correspond to how long and wide the bar chart would be.