

Q & A week 3 Minor Programmeren

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Q & A

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

d3 accesses the DOM by adding/appending elements to so called containers.
most HTML elements are containers that can be selected, either by select or selectAll.

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

d is an argument that can be called anything. it is a convention to call it d.
it is the first argument in function so it refers to passed data. i is a counter
that increases for each element. it is always the second argument.

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.

create a div:

```
d3.select('body')  
  .append('div')  
  .attr('class', 'barChart1');
```

add svg element:

```
d3.select('body')  
  .append('svg')  
  .attr('class', 'barChart2')  
  .attr('width', 50)  
  .attr('style', 50);
```

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

selection.append is used to append a new element to the selection.
this method returns a new selection containing the new element(s). This is useful in chaining methods.
selection.data is used to create, update and delete elements when data changes.
you can think of the first selection as declaring elements you want to create. returns update, enter and exit selections.
the enter selection allows the user to create a new element for each piece of data that has no element yet.
the update and exit selection are used to either update or delete the selection.

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

HTML canvas doesnt like scaling, where SVG scales very well, as the name suggests.

SVG is also useful with dynamic data, to change vectors on the fly.

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?

a couple of divs are appended. the first div is a container for the chart, the rest of the divs are individual bars.