

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

Select selecteert het eerste element van het html-type (p of h of div, etc.) dat je aangeeft. Als je 3 `<p>`'s hebt, dan selecteer je met `select` in principe de eerste. Met `selectAll` selecteer je al deze `<p>`'s.

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

`function(d,i)` ? what is this devilry?

Here, `i` (or anything we want to call it, as long as it's the 2nd argument of this function) represents the order of the element in the selection, so the first gets a 0, the second a 1, etc. (well, in our example it goes to 3 elements, so the last one gets a 2).

This may be a bit abstract to say here, but even if we haven't passed data, this would still work – `i` represent the order of the element, not the data item. so, if no data had been passed, within this function call, `d` would be undefined, but `i` would still be equal to 0,1,2, ...

**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");
```

```
d3.select("body")
  .append("div")
  .attr("class", "BarChart2");
  .attr("height", 100);
  .attr("width", 100);
```

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

- Append creates a new element and appends them to the selected DOM element
- Update
- "enter prepares space for the unmatched elements"  
(<http://www.jeromecukier.net/blog/2013/03/05/d3-tutorial-at-strata-redux/>)  
(al snap ik nog steeds niet precies wat hiermee bedoelt wordt)
- Exit haalt elementen weg die geen matchend data element hebben.

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

Met behulp van SVG (D3) kun je dynamisch elementen appenden en de bar chart maken. Anders moet je het hardcoden

6. 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?

In de tutorial correspondeerde de bars met de div's

**Vraag:**

**<https://bost.ocks.org/mike/bar/2/>**

Here's one more gotcha with external data: types! The `name` column contains strings while the `value` column contains numbers. Unfortunately, `d3.tsv` isn't smart enough to detect and convert types automatically. Instead, we specify a `type` function that is passed as the second argument to `d3.tsv`. This type conversion function can modify the data object representing each row, modifying or converting it to a more suitable representation: The type conversion function can also return `null`, in which case the row will be ignored. This is useful for filtering datasets on the client.

```
function type(d) {  
  d.value = +d.value; // coerce to number  
  return d;  
}
```

De `+d.value` zorgt er blijkbaar voor dat het een getal wordt... Maar hoe?