

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

D3 selects a specific part of the DOM. `select` 'selects a specific element'.
`selectAll` selects all the elements of the same type.

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

`D` stands for data in an element. `I` stands for index.

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 div = document.createElement("div");
d3.select("div").className = "test";
d3.select("body").append("chart").attr("width", 400).attr("height", 400);
d3.select("svg").className = "test2";
```

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

`Appends` = add element to DOM

`Update` = update element in DOM

`Enter` = add to selection

`Exit` = contain all elements without bound data

`selectAll + data + enter + append` refers to : all data that is left and append it to new element

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

SVG is more advanced. You can visualize with CSS.

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?

`Text`, `g` and `rect`.

`G` = given bar with elements `rect` and `text`

`Rect` = size of bar

`Text` = height of bar