

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

*SelectAll method takes a selector string, and returns all elements that match that selector. Select only selects the element in the (). You can for example select a tag. D3.select("body"). D3 can access the dom by using a dot.*

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

*The function(d) wil run on each value of our dataset. You can put d in front of the data.*

*The i in the function (d,i){} : represents the order of the elements in the selection, it does not represent the data item itself.*

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.

```
<body>
<div class = "barChart1"></div>
<div class = "barChart2"></div>
    <svg width = "50" height = "50"></svg>
```

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

*Append) to add to our page. It takes in an argument, the type of element that needs to be created.*

*SelectAll) select all the elements that match the selector.*

*Data) you use data to specify a dataset*

*Enter) it prepares one new element for every unmatched data item. After enter we specify an append.*

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

*HTML is limited to rectangular shapes, SVG supports powerful drawing primitives. This is not necessary for bar chars, but using SVG you can make a nice looking design.*

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?

*Bar.append("rect") = append the bar width*

*Bar.append("text") = append the bar's label position*

*Append("g") = g is an element. Data join s used to create a g element for each data point*