

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

D3 can access or change the DOM by using the function `d3.select()` or `d3.selectAll()` to select your desired element. The `d3.select()` function makes it possible to select an individual element while the `d3.selectAll()` function selects and returns all the elements that meet your criteria.

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

The 'd' stands for data and the 'i' stands for index. If you use the function without the 'i' it will bound your data to a default index. Using the function with both 'd' and 'i', will enable you to bound your data to your own chosen 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.

```
d3.select("body").append("div")
    .attr("class", "barChart1");
d3.select("body").append("svg")
    .attr("class", "barChart2")
    .attr("width", x)
    .attr("height", x)
```

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

It will select all the elements, add data to them and append it to the HTML page.

Append: This function will enable you to add a selection, tag or element into the DOM

Update: With this function it is possible to update your selection when it has changed or has been removed.

Enter: This is used to add new elements to your selection.

Exit: This function will enable you to select elements to remove them.

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

SVG will enable you to use different kinds of shapes while HTML is largely limited to rectangular shapes.

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?

Your data values were appended to the SVG that corresponded with the bars in the graph. Other appended elements were the axes.