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Dataproc week3
Questions D3

1. *How can D3 access and change the DOM? What do select and selectAll do?*
2. *What are the d and i in function(d){} and function(d, i){}?*
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.*
4. *Describe append, update, enter, and exit at a high level. What does "selectAll + data + enter + append" refer to?*
5. *What are the main differences between drawing a bar chart with HTML and SVG?*
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?*

1. Using d3 select methods you access and change the DOM. By using select(something) you select the first matching element. SelectAll() lets you access all matching elements.
2. D is the current datum and I the current index.
3. Barchart1 and barchart 2:

```
//Barchart 1 using d3 and js
d3.select("body").selectAll("div")
    .data(dataset)
    .enter()
    .append("div")
    .attr("class", "bar")
    .style("height", function(d) {
        var barHeight = d * 5;
        return barHeight + "px";
    });
```

```
//Barchart 2 using d3 js and svg
//Width and height
var w = 500;
var h = 100;
```

```
//Create SVG element
var svg = d3.select("body")
    .append("svg")
    .attr("width", w)
    .attr("height", h);

svg.selectAll("rect")
```

```
.data(dataset)
.enter()
.append("rect")
.attr("x", 0)
.attr("y", 0)
.attr("width", 20)
.attr("height", 100);
```

4. Append: To add a new svg element to your html
Update: To change the current element
Enter: To initialize data element
Exit: To remove a data element
5. SVG has more extensive features for data visualization. HTML will limit the possibilities in data visualization.
6. Text elements for labels, titles, and values on the axis.
G elements to group elements together (all elements of the yaxis etc.)

Ref: <http://alignedleft.com/tutorials/d3/making-a-bar-chart>