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

D3 access and change the DOM because it can operate directly on the nodes and mutate them. Select allows you to manipulate individual nodes while selectAll allows manipulation for a set of nodes.

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

D stands for the data associated with a given selection and i for the index

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")

var rectangle = svg.append("rect").attr("x", 4).attr("y", 4).attr("width", 20).attr("height", 40);

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

With selectAll you can select multiple elements at once. By using data() on it you can join the dataset with the DOM elements. When the dataset has more items than there are DOM elements the excess items will be stored in a subset by the enter and append selection.

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

HTML is pixel based while SVG is based on vectors

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?

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