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

With the commando d3.select D3 can acces elements (containers) present in the DOM and add, edit or delete elements inside these containers. With *select* the first element of the passed argument is selected. With selectAll all elements of this type are selected.

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

Datum and index. Datum represents the data that is being passed to D3. Index represents the index with which to iterate over this data.

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.

.append("div").attr("class","barchart1");

.append("svg").attr("class", "barChart2").attr("height", 90).attr("width", 90);

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

Select all selects all the elements that match the given clause. Data then connects the data to these elements. Enter then calculates how many (if any) extra elements are needed and append creates those elements.

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

Unlike HTML, SVG elements must be positioned relative to the top-left corner of the container.

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?

The element "rect" was appended. This element represents one of the bars of the bar chart.