

Questions Data Processing, Javascript

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

Oplossing. D3 can access and change the DOM by selecting a specific part of the DOM and then add or change something in that container. **Select** selects the first item found with the given type in the selector container, **selectAll** selects all of the items with the given type in the given container. ☐

Opgave 2. *What are the `d` and `i` in `function(d)` and `function(d, i)`?*

Oplossing. `d` is the given element in the data, `i` is the order of the given element. ☐

Opgave 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.*

Oplossing. `d3.select("body").append("div").attr("class", "barChart1")`

`d3.select("body").append("svg").attr("class", "barChart2")
.attr("width", 25px).attr("height", 25px)` ☐

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

Oplossing. • APPEND: The `append` method in d3 creates elements in the DOM. It takes as an argument the type of element that needs to be created.

- UPDATE: The `update` method updates old elements as needed.
- ENTER: The `enter` method can create new elements. It prepares one new element, the elements are not created yet at this stage, but they will with the next command.
- EXIT: The `exit` method selects elements so that they can be manipulated.

☐

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

Oplossing. With HTML you handle with one element at a time. With SVG and D3 you instead handle groups of related elements called selections. ☐

Opgave 6. *In drawing the simple bar chart with D3 and SVG, what elements were appended, and to what parts of the graph did these elements correspond?*

Oplossing. Div elements, and they correspond with the bars of the bar chart. ☐