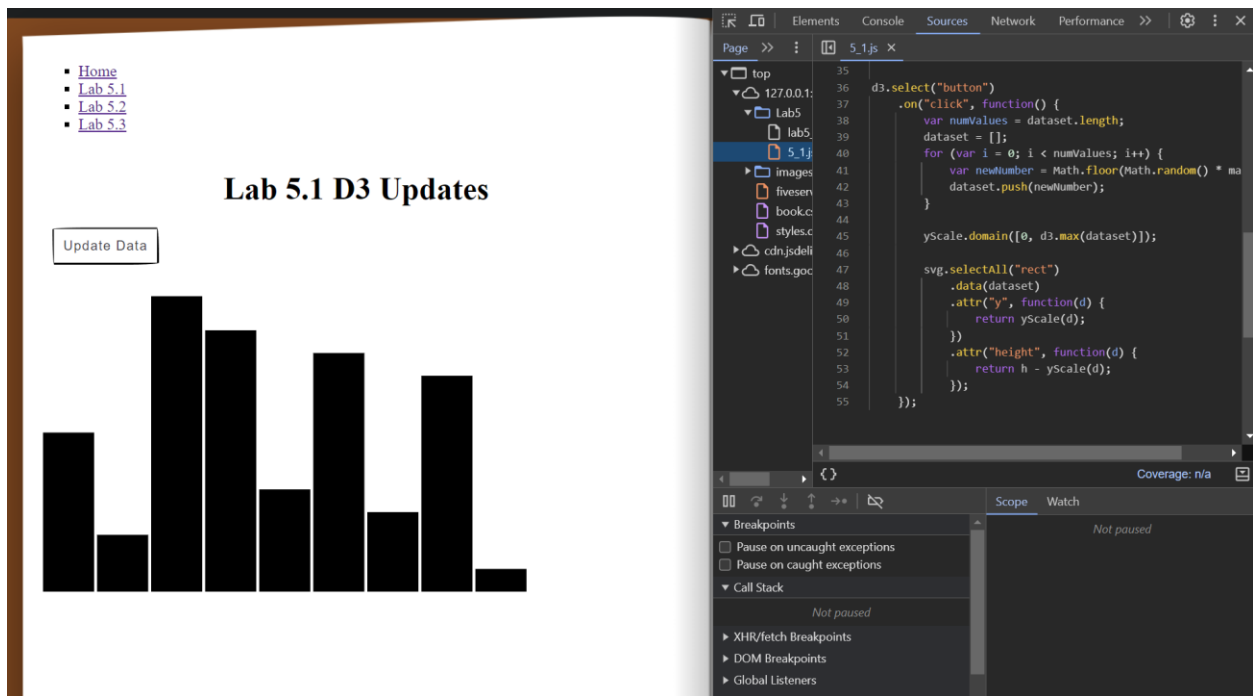


## Demonstration 3

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**Website:** <https://swinburne.is-great.net/main.html>

### Lab 5.1



### Lab 5.2

- Home
- Lab 5.1
- Lab 5.2
- Lab 5.3

## Lab 5.2 D3 Transitions

Update
Transition 1
Transition 2

5.2.js

```

62
63 d3.select("button#transition2")
64 .on("click", function() {
65     var numValues = dataset.length;
66     dataset = [];
67     for (var i = 0; i < numValues; i++) {
68         var newNumber = Math.floor(Math.random() * maxValue);
69         dataset.push(newNumber);
70     }
71
72     yScale.domain([0, d3.max(dataset)]);
73
74     svg.selectAll("rect")
75     .data(dataset)
76     .transition()
77     .delay(1000)
78     .duration(2000)
79     .ease(d3.easeElasticOut)
80     .attr("y", function(d) {
81         return yScale(d);
82     })
83     .attr("height", function(d) {
84         return h - yScale(d);
85     });
86
87
88 d3.select("button#transition3")
89 .on("click", function() {
90     var numValues = dataset.length;
91     dataset = [];
92     for (var i = 0; i < numValues; i++) {
93         var newNumber = Math.floor(Math.random() * maxValue);
94         dataset.push(newNumber);
95     }
96
97     yScale.domain([0, d3.max(dataset)]);
98
99     svg.selectAll("rect")

```

Line 48, Column 8
Coverage: n/a

## Lab 5.3

- Home
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- Lab 5.3

## Lab 5.3 D3 Adding & Removing

Add
Remove

5.3.js

```

35
36 d3.select("button#add")
37 .on("click", function() {
38     var newNumber = Math.floor(Math.random() * maxValue);
39     dataset.push(newNumber);
40     xScale.domain(d3.range(dataset.length));
41
42     var bars = svg.selectAll("rect")
43     .data(dataset);
44
45     bars.enter()
46     .append("rect")
47     .attr("x", 0)
48     .attr("y", function(d) {
49         return h - yScale(d);
50     })
51     .attr("width", xScale.bandwidth())
52     .attr("height", function(d) {
53         return yScale(d);
54     })
55     .merge(bars)
56     .transition()
57     .duration(500)
58     .attr("x", function(d, i) {
59         return xScale(i);
60     })
61     .attr("width", xScale.bandwidth());
62
63
64 d3.select("button#remove")
65 .on("click", function() {
66     dataset.pop();
67     xScale.domain(d3.range(dataset.length));
68
69     var bars = svg.selectAll("rect")
70     .data(dataset);
71
72     bars.exit()

```

Coverage: n/a

## Lab 6.1

- Home
- Lab 6.1
- Lab 6.2

## Lab 6.1 D3 Interactivity

Add

Remove

```

85     .attr("x", function(d, i) {
86         return xScale(i);
87     })
88     .attr("width", xScale.bandwidth());
89
90
91     svg.selectAll("rect")
92     .on("mouseover", function(event, d) {
93         d3.select(this)
94         .transition()
95         .attr("fill", "orange")
96
97         var xPosition = parseFloat(d3.select(this).attr("x"))
98         var yPosition = parseFloat(d3.select(this).attr("y"))
99
100        svg.append("text")
101        .attr("id", "tooltip")
102        .attr("fill", "black")
103        .attr("text-anchor", "middle")
104        .attr("x", xPosition + (xScale.bandwidth() / 2))
105        .attr("y", yPosition + 15)
106        .text(d);
107    })
108    .on("mouseout", function() {
109        d3.select(this)
110        .transition()
111        .attr("fill", "slategrey")
112
113        d3.select("#tooltip").remove()
114    });
115
116    });
117
118    d3.select("button#remove")
119    .on("click", function() {
120        dataset.pop();
121        xScale.domain(d3.range(dataset.length));

```

## Lab 6.2

[Home](#)

[Lab 6.1](#)

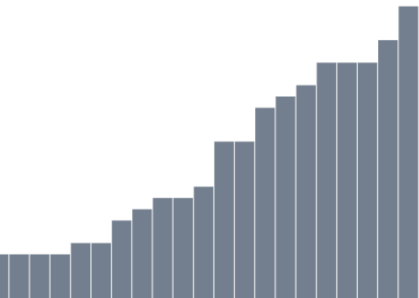
[Lab 6.2](#)

## Lab 6.2 D3 Sorting

Add

Remove

Sort



6.2.js

```
148         } else {
149             return d3.ascending(a, b);
150         }
151     })
152 });
153
154 var sortBars = function () {
155     sortOrder = !sortOrder
156     svg.selectAll("rect")
157         .sort(function (a, b) {
158             if (sortOrder) {
159                 return d3.descending(a, b);
160             } else {
161                 return d3.ascending(a, b);
162             }
163         })
164         .transition()
165         .duration(1000)
166         .attr("x", function (d, i) {
167             return xScale(i);
168         })
169         .attr("y", function (d) {
170             return yScale(d);
171         })
172         .attr("width", xScale.bandwidth())
173         .attr("height", function (d) {
174             return h - yScale(d);
175         })
176     }
```

Coverage: n/a