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DLI Accelerated Data Science Teaching Kit

Lecture 9.5 - Attributes, Styles, Classes & Text



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.attr()

- The Attribute Method
- Sets attributes such as x, y, width, height, and fill
- Technical details:
 - `group.attr("x", 5)`
 - `<rect x="5"></rect>`

.attr() and Functional Programming

Input

```
[ {size: 10}, {size: 8}, {size: 12.2} ]
```

We want 3 rectangles:

```
<rect height="10" x="5"></rect>
```

```
<rect height="8" x="10"></rect>
```

```
<rect height="12.2" x="15"></rect>
```

```
.attr("height", function(d,i){ return d.size })
```

d: the data point

```
.attr("x", function(d,i){ return (i+1)*5; })
```

i: the index of the data point

<text> elements

- I'm going to apologize in advance here for the lousy job the W3C did with the <text> definition.
- You're going to have to just either memorize these things or keep referring back to <http://www.w3c.org/TR/SVG/text.html> (first Google hit for “svg text”) like I do.

<text> elements

- Extra Method in D3
 - `.text("Your Text Goes Here")`
 - `<tag>Your Text Goes Here</tag>`
- Attributes
 - `x`
 - `y`
- Styles
 - `text-anchor: start, middle, end`
 - `dominant-baseline: [nothing], hanging, middle`

text-anchor style

Where is (0,0)?

This is my line of text.

start

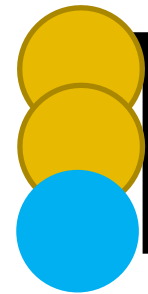
middle

end

dominant-baseline style

Where is (0,0)?

hanging
middle
default



This is my line of text.

<text> example

Start
Middle
End

```
<text x="50" y="20"  
      style="text-anchor: start">  
    Start  
</text>  
<text x="50" y="40"  
      style="text-anchor: middle">  
    Middle  
</text>  
<text x="50" y="60"  
      style="text-anchor: end">  
    End  
</text>
```

The .style() Function

Like attr, but for the style attribute

- Inline CSS styling

```
.style("prop1", "val1")
```

```
.style("prop2", "val2")
```

```
.style("prop3", function(d,i) { })
```

```
<ele style="prop1: val1; prop2: val2;">
```

<text> example

```
group.append("svg:text")
    .text(function(d) {return d.name})
    .attr("x", function(d,i) {return i*5})
    .attr("y", function(d,i) {return height;})
    .style("dominant-baseline", "hanging")
    .style("text-anchor", "middle")
```

Need to remember what to use `.style` and
when to use `.attr`

What if you have
two different types of circles?

Classing

- CSS Classes
 - Any number of classes per element
 - Select using “.classname”

```
blue = vis.selectAll("circle.bluecircle")  
        .data(bluedata, function(d) {return d.id; })
```

```
blue.enter( ).append("svg:circle")  
        .classed("bluecircle", "true")
```

```
vis.selectAll(".bluecircle").attr("fill", "blue")
```



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Thank You

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