Lab 7
D3.js (Part II)

March 7, 2013 – Michael Porath (@poezn)
Assignment 4

• get started EARLY!
• include data at least through March 12.
• leave time to iterate. Show iterations
• No files in a proprietary format (including Word, Pages, Illustrator, etc.)
• Get feedback!
• We're here to help
• Have a look at updated A4 guidelines for more info
Data Binding

i am a <circle>

each <element> has a datum “attached”

28
Data Binding
Data Driven Attributes. Here: radius

1. `<circle>` with a tag labeled 42
2. `<circle>` with a tag labeled 28
3. `<circle>` with a tag labeled 13
Your Turn

Let’s try this
First example
Re-creating the OK Cupid color matrix with D3.js

![Reply Rate By Race](http://blog.okcupid.com/index.php/your-race-affects-whether-people-write-you-back/)

<table>
<thead>
<tr>
<th></th>
<th>Asian - Male</th>
<th>Black - Male</th>
<th>Hispanic/Latin - Male</th>
<th>Indian - Male</th>
<th>Middle Eastern - Male</th>
<th>Native American - Male</th>
<th>Other - Male</th>
<th>Pacific Islander - Male</th>
<th>White - Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian - Male</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Black - Male</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Hispanic/Latin - Male</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Indian - Male</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Middle Eastern - Male</td>
<td>26</td>
<td>26</td>
<td>26</td>
<td>26</td>
<td>26</td>
<td>26</td>
<td>26</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Native American - Male</td>
<td>26</td>
<td>26</td>
<td>26</td>
<td>26</td>
<td>26</td>
<td>26</td>
<td>26</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Pacific Islander - Male</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>White - Male</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>29</td>
</tr>
</tbody>
</table>
First example
Re-creating the OK Cupid color matrix with D3.js
Make a Plan

Let’s make a concept up front

9 rows
Make a Plan
Let’s make a concept up front

9 squares per row
Make a Plan
Let’s make a concept up front

fill the squares with the right color
Exercise 1

Draw the squares

http://tributary.io/inlet/5054734
Exercise 1

Draw the squares (full code)

http://tributary.io/inlet/5054769
Color Scales

How?
Color Scales

How?
Color Scales

How?

... 23 ... 29 ... 34 ...
Color Scales

How?
Exercise 2
Color Scale

http://tributary.io/inlet/5111589
Exercise 3
Putting it together

http://tributary.io/inlet/5054877
Exercise 3
Putting it together - Full Code

http://tributary.io/inlet/5054889
Transformations
SVG attribute "transform"
Transformations

SVG attribute “transform”

move translate\((x, y)\)
Transformations
SVG attribute “transform”

move  translate($x, y$)

rotate  rotate($degrees$)
Transformations
SVG attribute “transform”

move  translate($x$, $y$)

rotate  rotate($\text{degrees}$)

scale  scale($\text{factor}$)
Transformations

You can chain them

```xml
<rect
   width="200"
   height="30"
   transform="translate(20, 50) rotate(-45) scale(3)"
>
</rect>
```
Exercise 4

Play with transformations

http://tributary.io/inlet/5111933
Next Lecture

Storytelling
Next Lab

Storytelling