

Multiple Layers for ggvis

Multiple layers

- ▶ Rich graphics can be created by combining multiple layers on the same plot.

Multiple Layers

Starting Off

```
mtcars %>%  
  ggvis(~wt, ~mpg) %>%  
    layer_smooths() %>%  
    layer_points()
```

(Indentation not absolutely necessary in R, but helpful for readers)

Multiple Layers

Multiple Smoothers

You could use this approach to add two smoothers with varying degrees of *wiggleness*:

```
mtcars %>%
  ggvis(~wt, ~mpg) %>%
    layer_smooths(span = 1) %>%
    layer_smooths(span = 0.3,
                  stroke := "red")
```

Multiple Layers

Exercises

- ▶ Try out the previous code with different setting for `span` and `stroke`.
- ▶ Try out a similar exercise for the *iris* data set, using pairings of the following variables
 - ▶ `Sepal.Length`, `Sepal.Width`,
`Petal.Length`, `Petal.Width`
- ▶ Try out the code on the next slide.

Multiple Layers

Slider to specify the smoothing parameter and point size:

```
mtcars %>%
  ggvis(~wt, ~mpg) %>%
    layer_smooths(span =
      input_slider(0.5, 1,
        value = 1)) %>%
    layer_points(size :=
      input_slider(100, 1000,
        value = 100))
```

Multiple Layers

- ▶ You can learn more about building up rich hierarchical graphics in Hadley Wickham's “**Data Hierarchy**” vignette.