Cheatography

Data Visualization in R: ggvis continued Cheat Sheet

by shanly3011 via cheatography.com/20988/cs/3867/

ggvis & Group_by

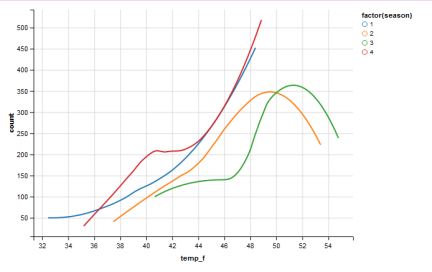
When these 2 are used in conjunction, we can create powerful visualizations.

Code:

```
train_tbl %>%
group_by(season) %>%
ggvis(~temp_f,~count, stroke =
~factor(season)) %>%
layer_smooths()
```

Here, season is a categorical variable. And we have grouped it and then used stroke to highlight the different seasons.

Output



In-Built plot types

1. `layer_points()`
2. `layer_lines()`
3. `layer_bars()`
4. `layer_smooths()`
5. `layer_histograms()`

Most popular ones cited

Global Vs Local properties

A property that is set inside `ggvis()` is applied globally. While a property set inside `layer_<marks>()` is applied locally.

Local properties can override global properties when applicable.

Scale Types

Any visual property in the visualization can be adjusted with scale().

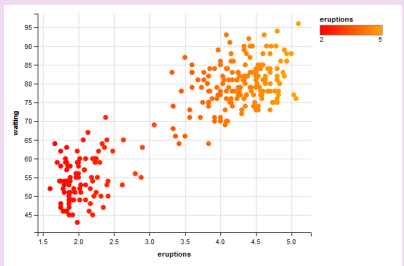
ggvis provides several different functions for creating scales:

```
scale_datetime(),
scale_logical(), scale_nominal(),
scale_numeric(), scale_singular()
```

Code

```
faithful %>%
ggivs(~eruptions,~waiting, fill =
~eruptions) %>%
layer_points() %>%
scale_numeric("fill", range =
c("red","orange"))
```

Output



ggvis & interaction ()

We can also group data based on interaction of two or more variables. `group_by()` creates unique groups for each distinct combination of values within the grouping variables.

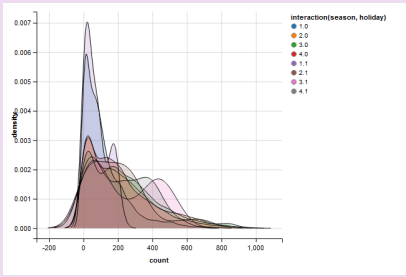
`ungroup()` can remove the grouping information.

`interaction()` can map the properties to unique combinations of the variables

Code:

```
train_tbl %>%
group_by(season,holiday) %>%
ggvis(~count, fill =
~interaction(season,holiday)) %>%
layer_densities()
```

Output



Model Prediction

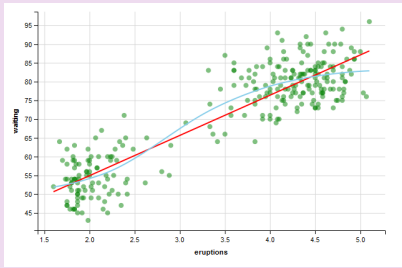
layer_model_predictions() plots the prediction line of a model fitted to the data.

```
layer_model_predictions(model =
"lm")
```

Code:

```
faithful %>%
ggvis(~eruptions,~waiting) %>%
layer_points(fill := "green",
fillOpacity := 0.5) %>%
layer_model_predictions(model =
"lm", stroke := "red") %>%
layer_smooths(stroke := "skyblue")
```

Output



Interactive Plots

ggivs comes several widgets such as

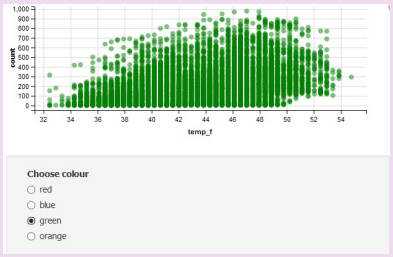
```
input_checkbox(),
input_checkboxgroup(),
input_numeric(),
input_radiobuttons(),
input_select(),
input_slider(), and input_text().
```

label = "ABCD " , choices = c("red","black") - value = "black" - Used with input_text()

Interactive Plots (cont)

map = as.name used when we want to return variable names
Are the common arguments inside these functions.

Output



Legends & Axis

Axis

You can add axes with `add_axis()`

Syntax:

```
faithful %>%
ggvis(~eruptions,~waiting) %>%
add_axis("x", label = "Eruptions", values =
c(1,2,3,4), subdivide = 9, orient = top") %>%
layer_points()
```

Legends

`ggvis` adds a legend for each property that is specified. To combine multiple legends into a single legend with common values, use a vector of property names.

```
add_legend()
hide_legend()
```

Syntax

```
faithful %>%
ggvis(~waiting, ~eruptions, opacity := 0.6,
fill = ~factor(round(eruptions)), shape =
~factor(round(eruptions)),
size = ~round(eruptions)) %>%
layer_points() %>%
add_legend(c("fill", "shape", "size"),
title = "~ duration (m)", values = c(2, 3, 4,
5))
```