

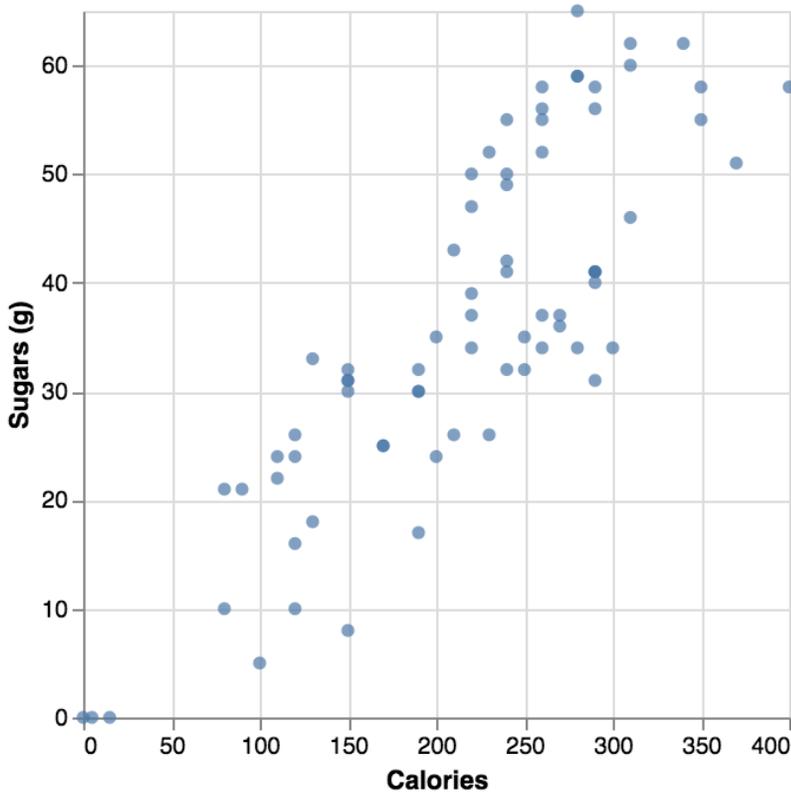
# ResBaz Data Visualization Workshop Vega-Lite - Self-Paced Exercises

Want to move at a faster-pace than the workshop? Here are the exercises we will cover. One exercise per page.

Want an extra challenge? The size and text used for the labels could be improved. On your own, check the documentation to adjust fonts, add titles, and change text.

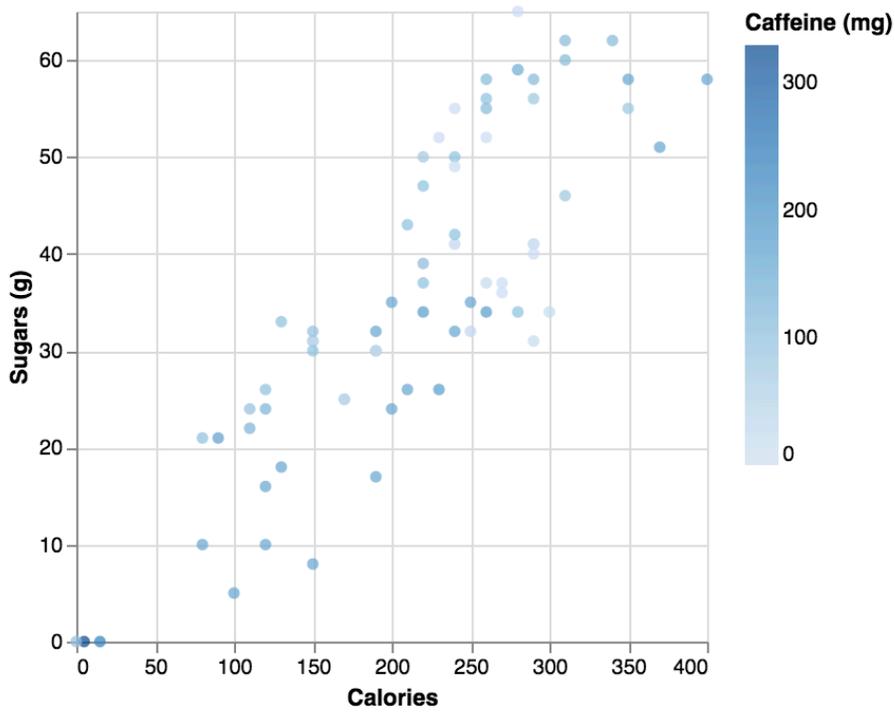
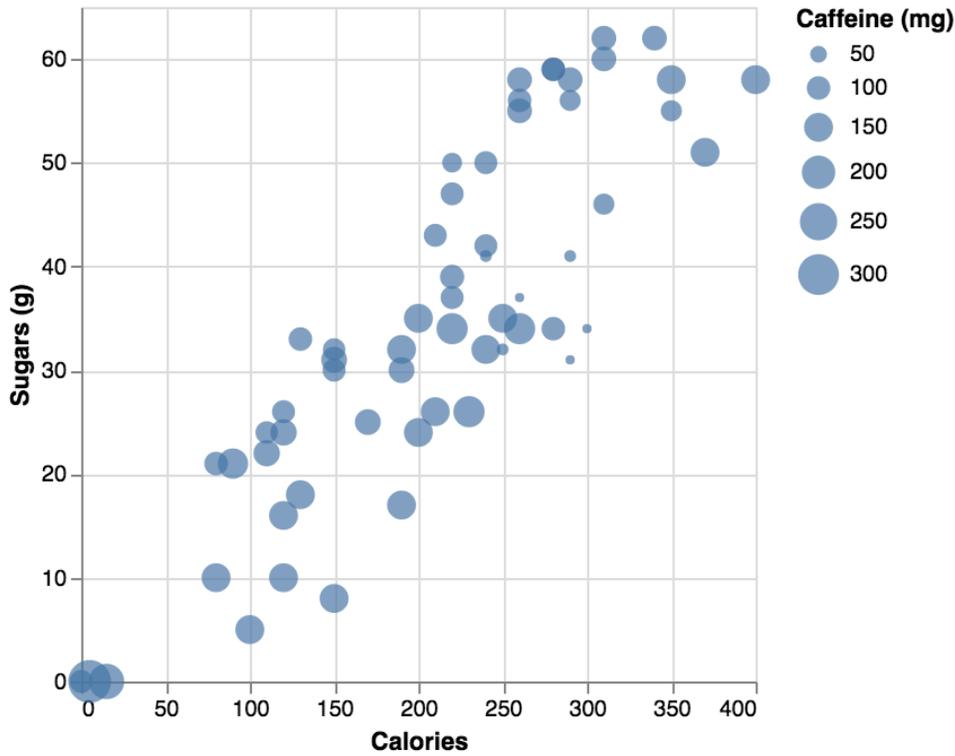
## Exercise 1:

Replicate this plot with the Kaggle Starbucks nutritional information data (an array named **drinks** in `resbaz_data.js`). Don't forget to add a tooltip.



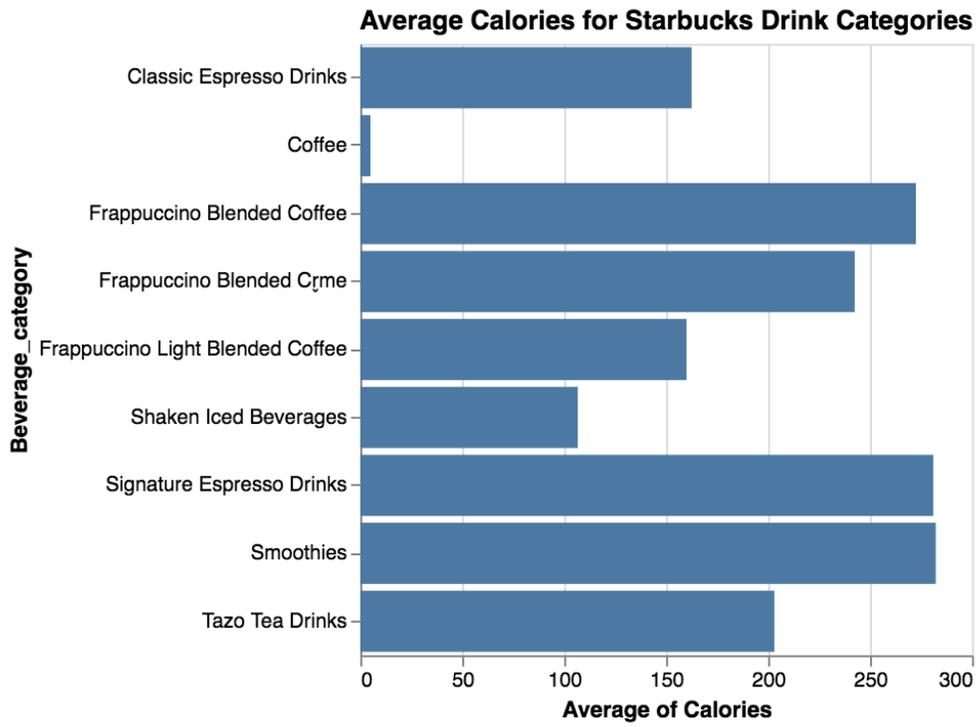
## Exercise 2:

Let's encode a third variable, **Caffeine (mg)**, with size and then with color. Include a legend.



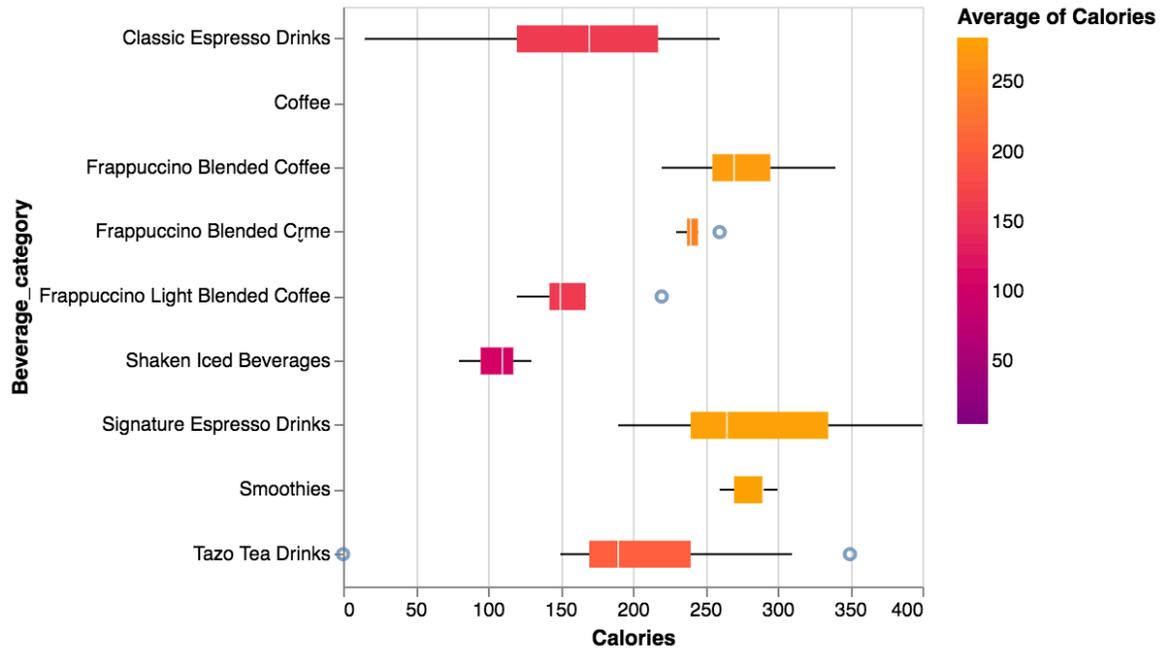
### Exercise 3:

Replicate the following bar charts with the Starbucks data. Note it shows averages across groups.



## Exercise 4:

Boxplots showing calorie distributions of drink groups.



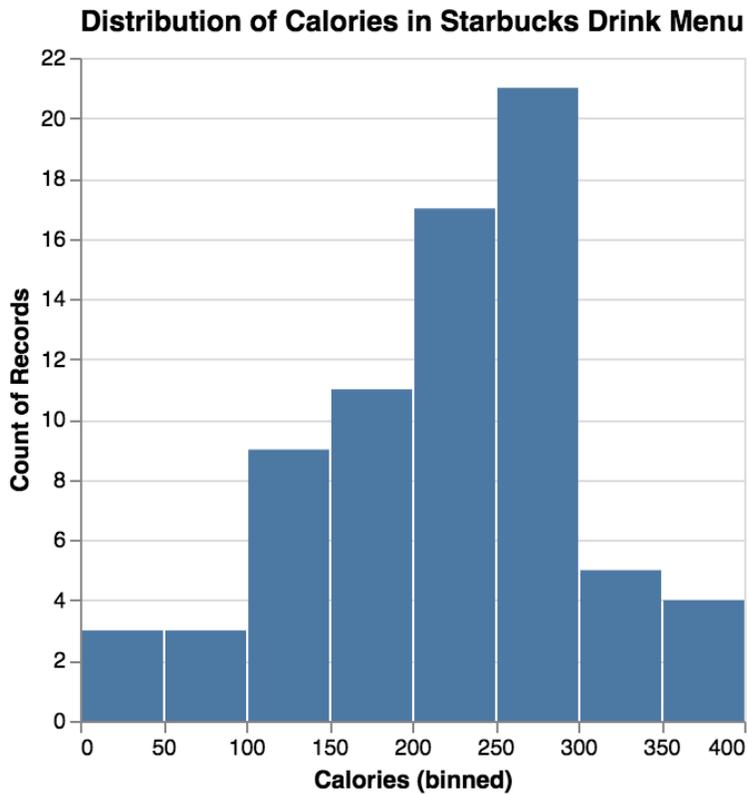
Hint: You can adjust an encoding's scale directly with a "scale" parameter

```
"color": {  
  "field": "field_name",  
  "type": "quantitative",  
  "scale": {  
    "range": [ "red", "blue" ]  
  }  
}
```

## Exercise 5:

Replicate the following bar charts with the Starbucks data.

This one is a histogram.

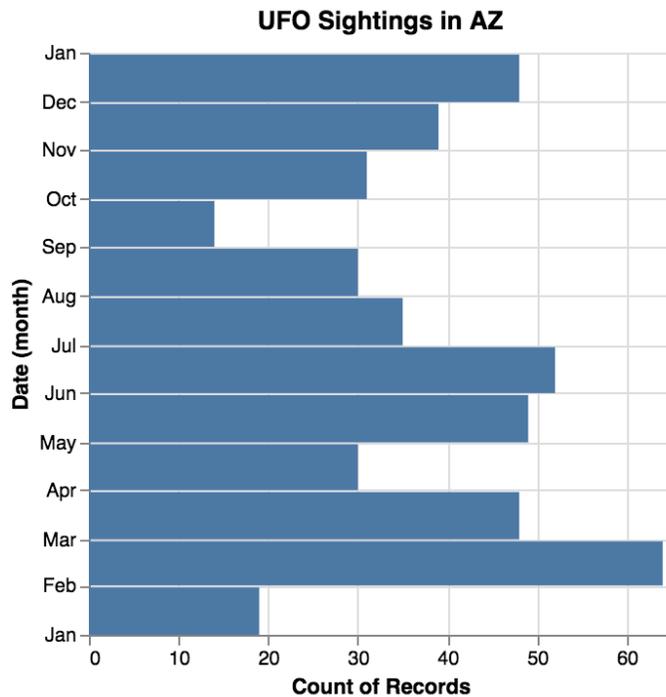


Hint: You can add a "bin" field to your encoding to group data into bins. What about the y position? Think about what you're aggregating.

```
"x": {  
  "field": "Calories",  
  "bin": "true",  
  "type": "quantitative"  
}
```

## Exercise 6:

New dataset: UFO Sightings (**ufos**). Plot the sightings per month.



Hint: You can add a "timeUnit" field to your encoding to group data temporally if you set the "type" field to "temporal", e.g.:

```
"x": {  
  "field": "Date",  
  "timeUnit": "yearmonth",  
  "type": "temporal"  
}
```

# Explore On Your Own

You can use your own data or more in this set.

Another dataset included: twitch.html and twitchsmall.js are setup with the top 100 twitch streamers (dataset from Kaggle). How might you show divisions by language or mature content? How do followers and views relate?

## Vega-Lite Visualization - Kaggle Top 100 Twitch Streamers

