# Customizing Maps with D3



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# Overview

Refactor code for extensibility

Drawing capital cities as points

Making a choropleth

Creating a bubble map

# Demo

Refactor code into functional chunks

Make use of object-oriented concepts
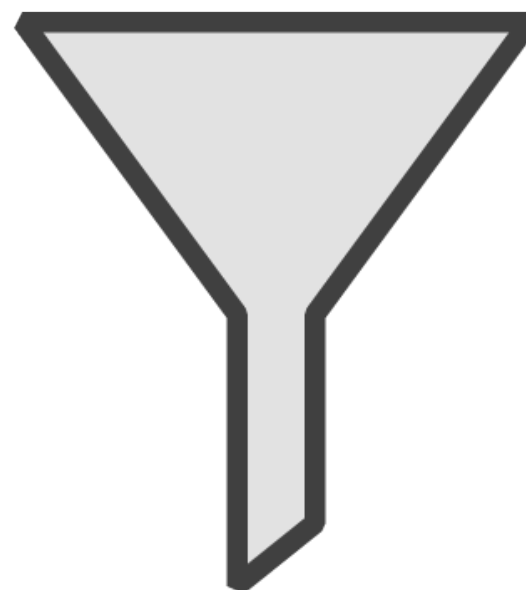
Build a foundation for the rest of the course
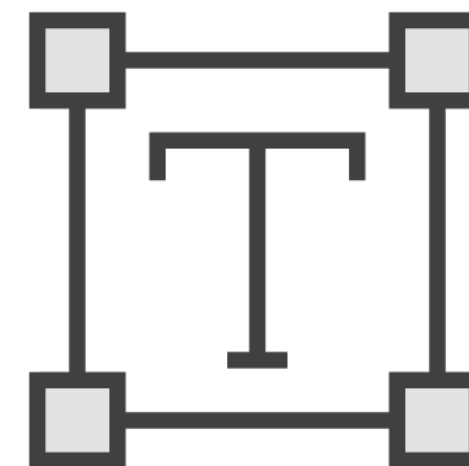
# Drawing Points

**CSV**

Raw data

Lat, Lng, Name

Projection - P
P(Lng, Lat) = X, Y

X, Y, Name

SVG circle

SVG text

# Demo

Consume CSV data through API call

Add method to draw cities

Draw labelled points

# Choropleths
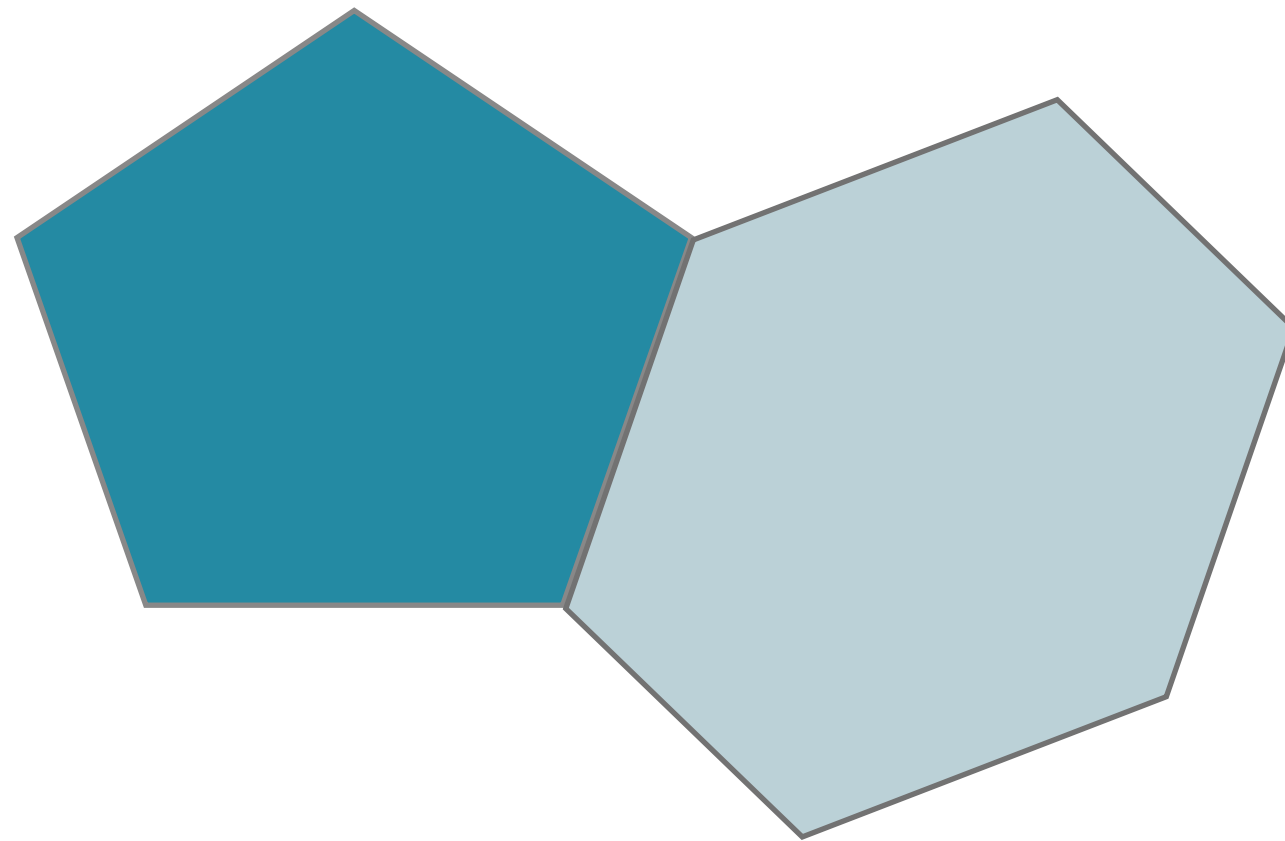
Areas are shaded

Color proportional to the value being measured

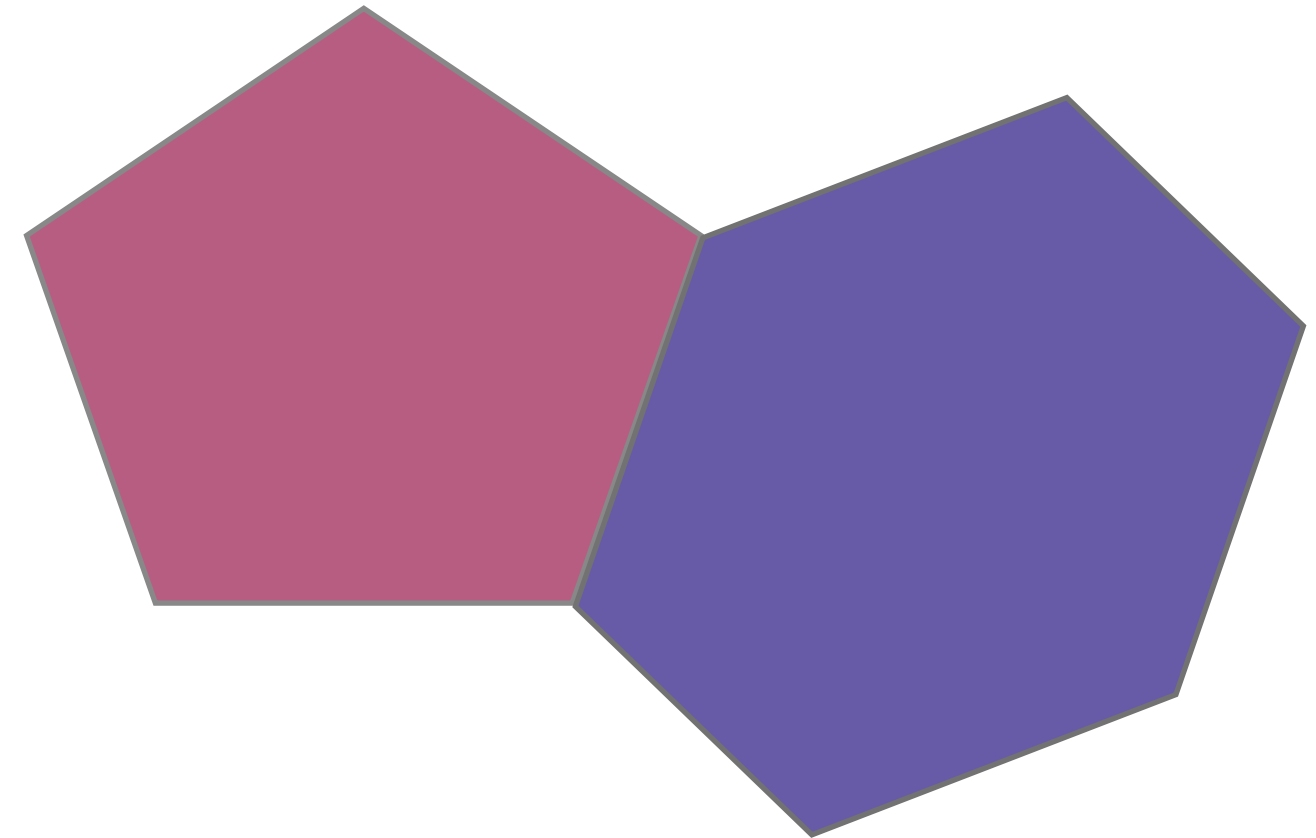Popular visualization for quantitative and qualitative data

# Choropleths
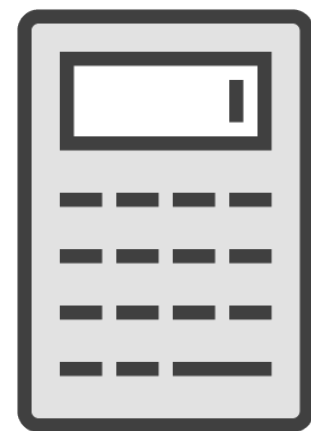


100

0

**Quantitative Choropleth**

Legal
Illegal

**Qualitative Choropleth**

# Drawing a Choropleth



GeoJSON

GDP, Population

GDP/ Population

GDP per capita

Color scale

# Demo

Calculate per capita GDP from data

Create a D3 color scale

Assign colours to country paths
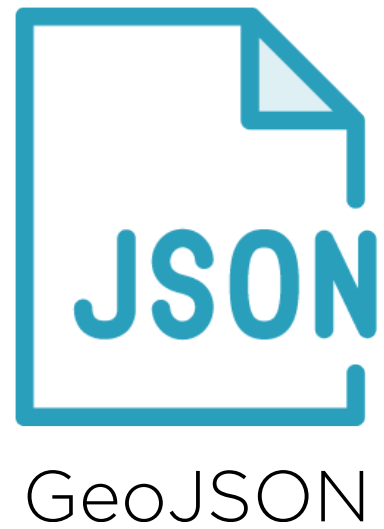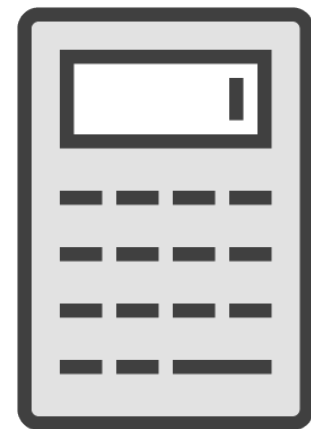
Add a legend

# Alternative Visualizations

Choropleths not suitable for visually impaired

Scale is more visual by using size instead of color

# Drawing Bubble Maps

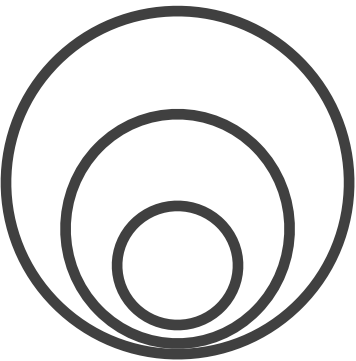maps.com/data/world-

GeoJSON  →  GDP, Population  →  GDP/Population  →  GDP per capita  →  Linear scale  →

# Demo

Create linear scale from data

Draw circles with a variable radius

# Summary

Refactoring code into methods and attributes helps extensibility

Projections can be used to draw points from raw coordinate data

Choropleths convert a value into a color on the map

Bubble charts are a good alternative for size based visualizations