DVDC Organizers

Sean
@SeanMGonzalez

Tony

Amanda
@abmakulec

Ruchita

Sara

Esube

Benjamin

@DataVizDC
@DataCommunityDC

We need you!!!

Data Community DC

Today's venue sponsor

Excella

Amanda Makulec
Managing Consultant and Data Viz Lead
Excella Consulting

Data Community DC

Our Meetups

DATA EDUCATION//DC

dsdc

Meetup

SP DC

WOMEN DATA SCIENCE DC
Supporting & Encouraging Women in Data Science

Nova DATA SCIENCE

Full Stack Data Science DC

$Y = \beta_0 + \beta_1 X + \varepsilon$
Statistical Seminars

DATAWRANGLERSDC

Data Community DC

Partner Companies

Meetup

GI

ATA

DATA SOCIETY™

DEEP LEARNING ANALYTICS

krishcorp

M M

THE MENTOR METHOD

Organizational and Educational Sponsors

Data Community DC

Booz Allen

O'REILLY®

statistics.com

DistrictDataLabs

Do you want to be a speaker?

dvdc@datacommunitydc.org

Data Community DC

EVENTS MANAGER

for a part time role

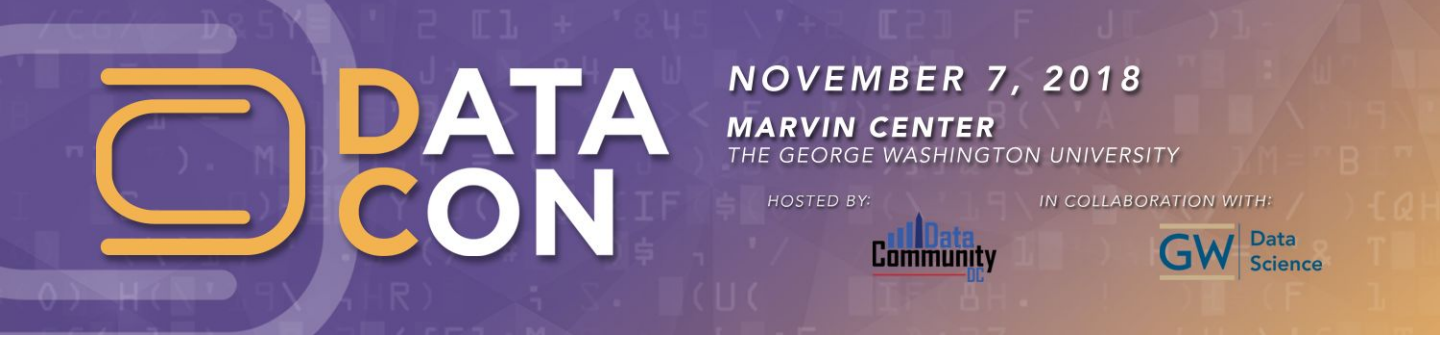
$300/Month

Awesome Roles

- Host roughly 8 events per month.
- Managing all events' venue, food, and scheduling correspondence.

For more Questions…

Contact: agents@DataCommunityDC.org



@DataCommunityDC
@GWtweets
@NCSIEvents
@ATA-llc
@CraigParisot

By Data Professionals for Data Professionals

Spread the Word as a Community Partner!

What is a Community Partner?

- An organization located in the Greater Washington DC Metro area
- An organization that is actively engaged in promoting meaningful conversations and explorations of data science related topics.

What we need from you?

- Your logo and website URL
- A willingness to share DC DATACON with your audience

What's the benefit of being a DC DATACON Community Partner?

- 1 year of promotion across DC2
- Logo and link on the DC DATACON registration website identified as a "Community Partner"
- A "Thank You" and Recognition at the conference
- Building and strengthening local professional relationships

Please contact Craig Parisot - craigp@DataCommunityDC.org - for more information

GASP!

Government Applications of Statistical Programming

Bureau of Labor Statistics in Washington DC on October 24-25, 2018.

Themes will include:

- R applications in the government
- Data science in R, python, or other open source languages and environments
- Big data and official statistics
- Open source software for official statistics
- Shiny servers and applications
- Text analysis applications
- Anything interesting and helpful to government R and open-source developers

If interested email Mike Jadoo (Jadoo.Michael@bls.gov) by October 1, 2018.

- Title and abstract
- Type of talk: Regular (20 minute), lightning talk, demo, or poster
- Contact info: Name, employer, email, phone number

satRday DC 2018

Call for Presentatations are open!
https://dc2018.satrdays.org/

RainbowR

@R_LGBTQ

Other announcements?

jobs
Meetups
hackathons
conferences
fun

@DataVizDC
@DataCommunityDC

DATA VIZ DC SHORT COURSE

ON...

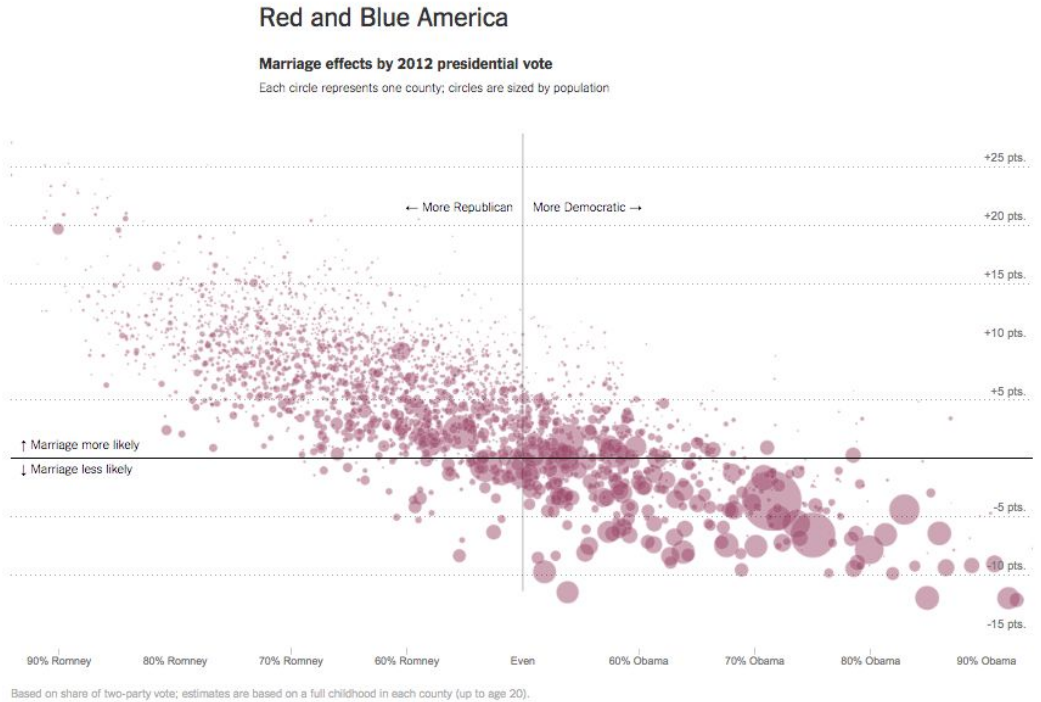
We will cover:

1. The components of a data visualization
2. How svg shapes are created
3. How to select svg shapes with D3.js
4. JSON and JavaScript .map()
5. How to add data onto the screen using D3.js

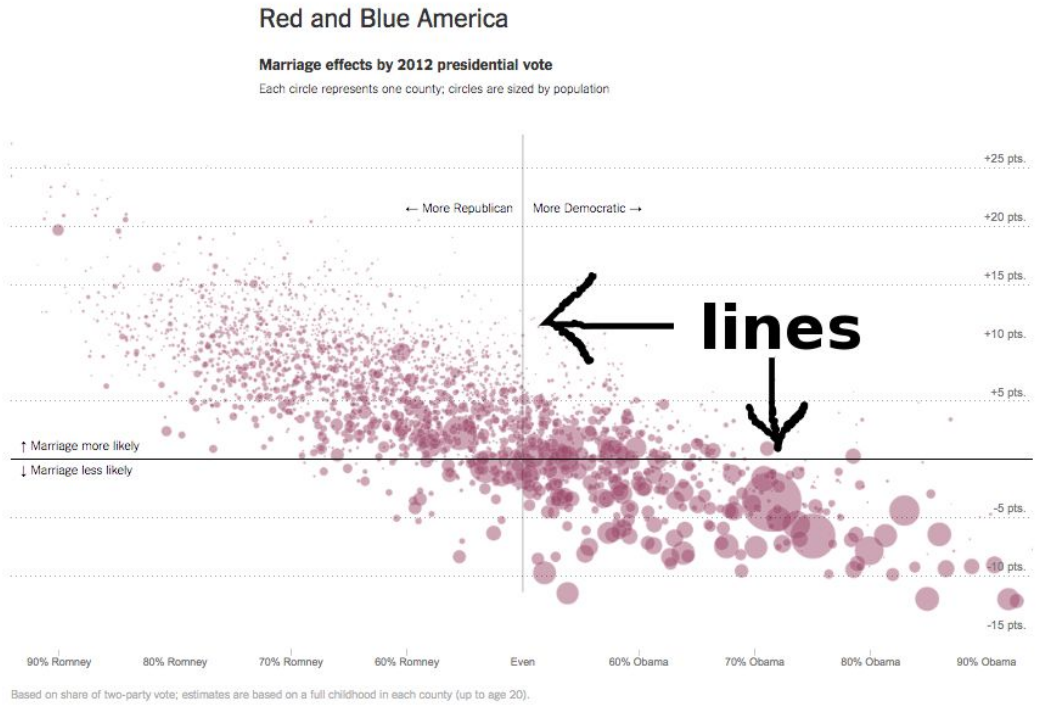
We will cover:

1. The components of a data visualization
2. How svg shapes are created
3. How to select svg shapes with D3.js
4. JSON and JavaScript .map()
5. How to add data onto the screen using D3.js

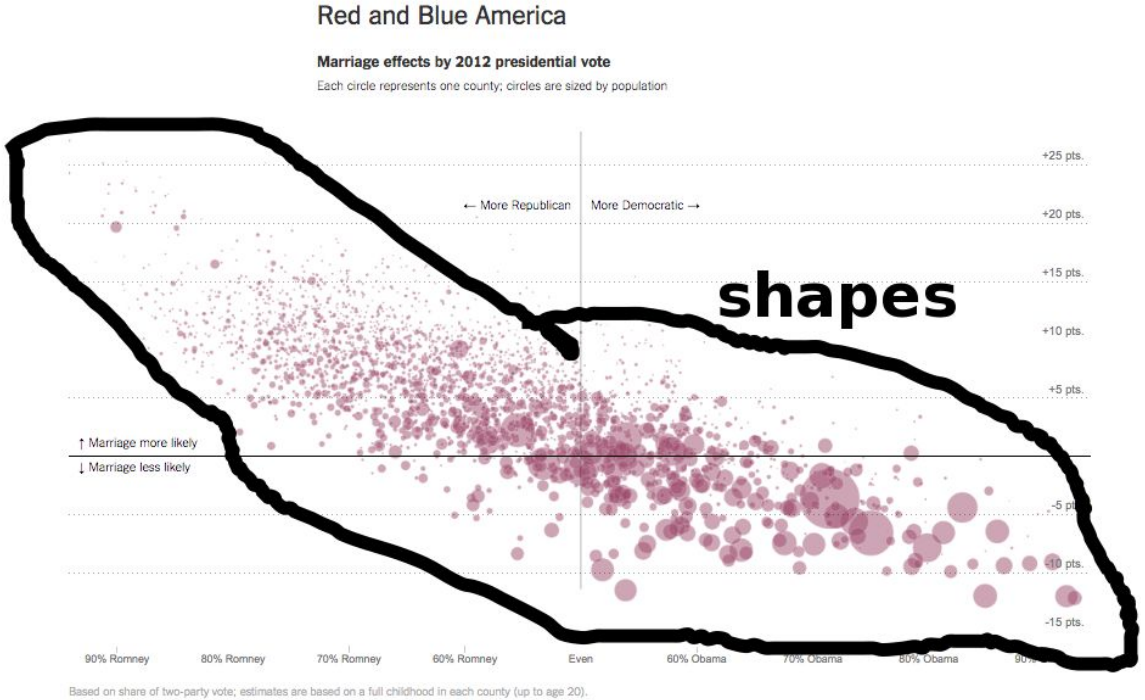
Scatter Plot



Scatter Plot

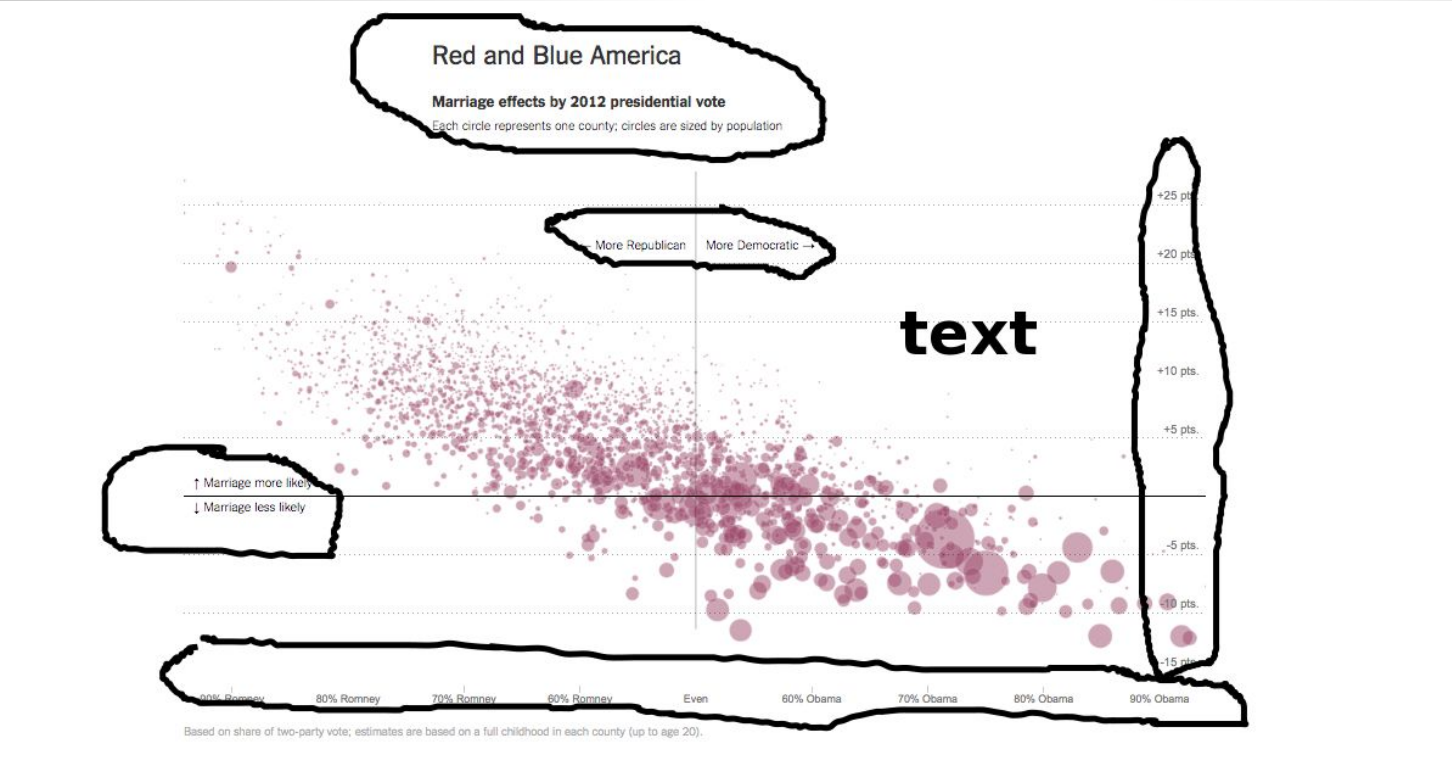


Scatter Plot

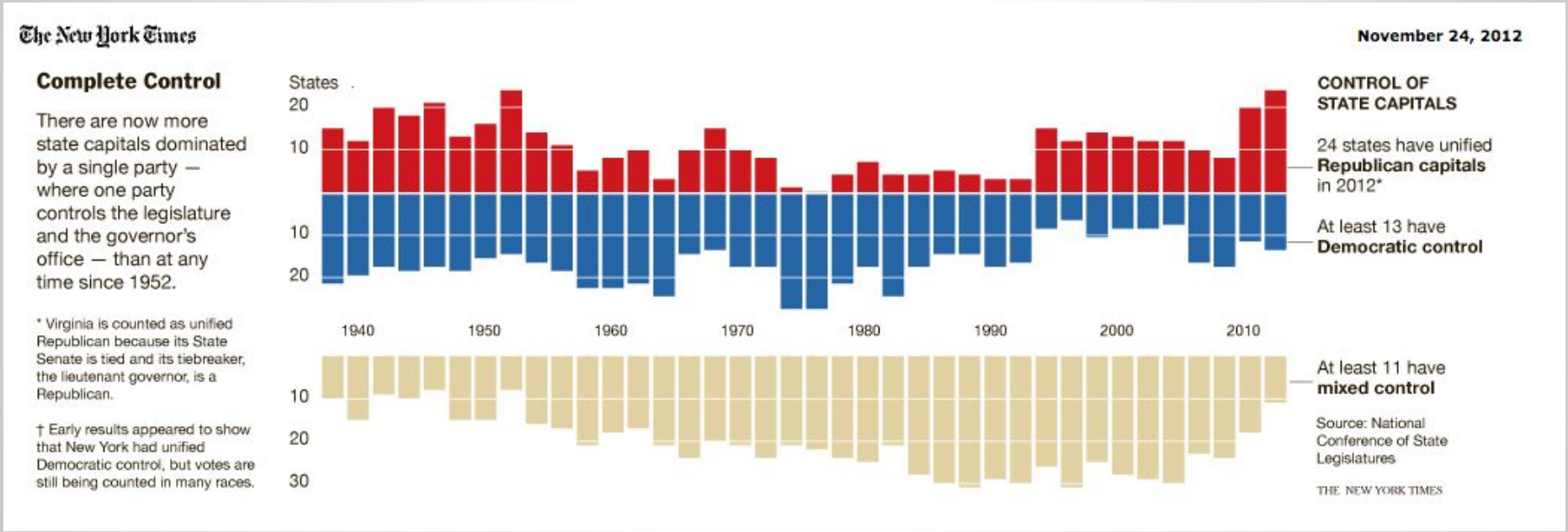


shapes

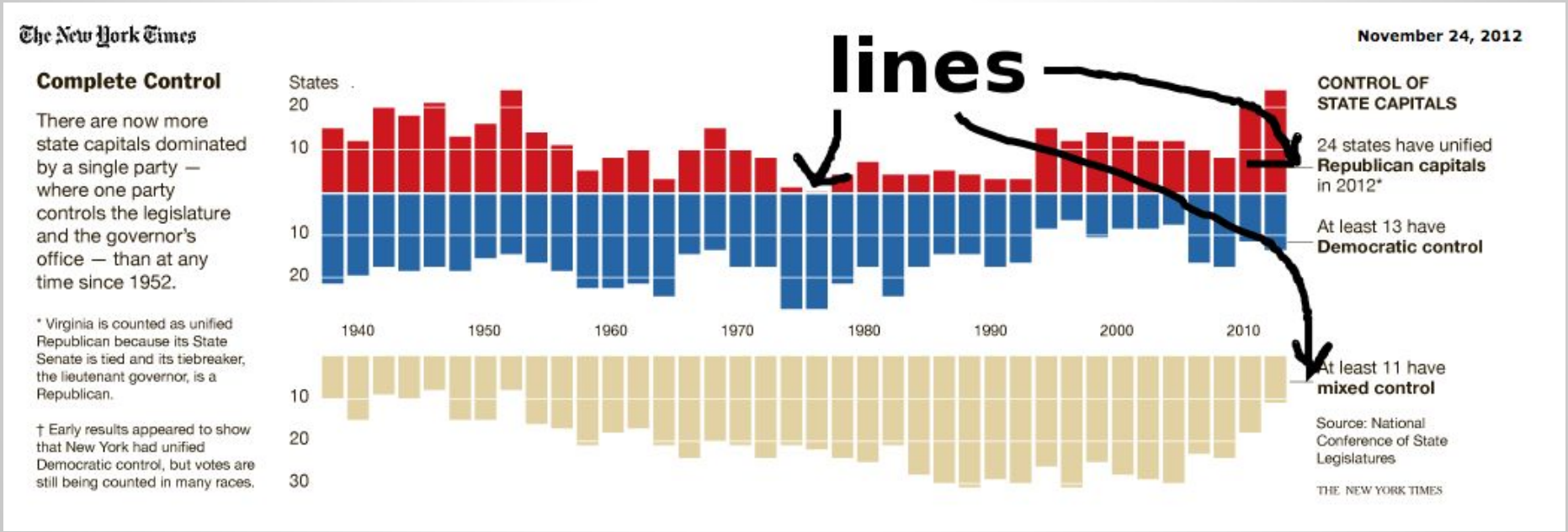
Scatter Plot



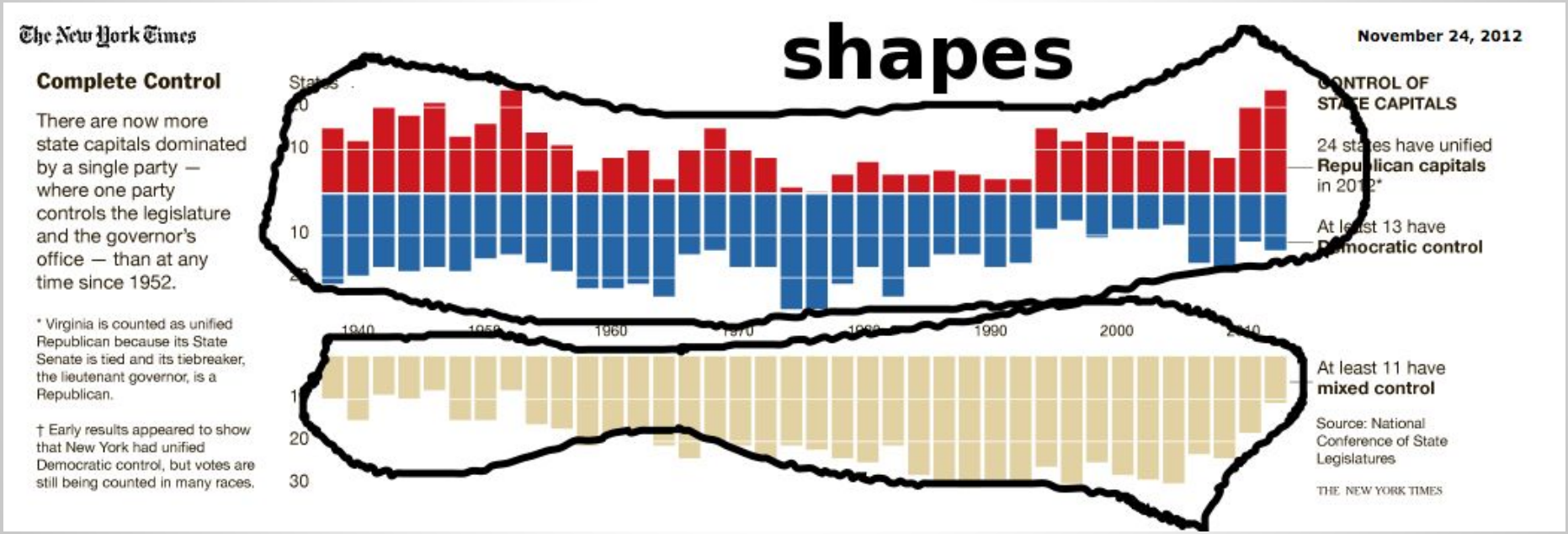
Bar Chart


The New York Times
November 24, 2012
Complete Control
There are now more state capitals dominated by a single party — where one party controls the legislature and the governor's office — than at any time since 1952.
* Virginia is counted as unified Republican because its State Senate is tied and its tiebreaker, the lieutenant governor, is a Republican.
† Early results appeared to show that New York had unified Democratic control, but votes are still being counted in many races.
States
20
10
10
20
10
20
30
1940
1950
1960
1970
1980
1990
2000
2010
CONTROL OF STATE CAPITALS
24 states have unified Republican capitals in 2012*
At least 13 have Democratic control
At least 11 have mixed control
Source: National Conference of State Legislatures
THE NEW YORK TIMES

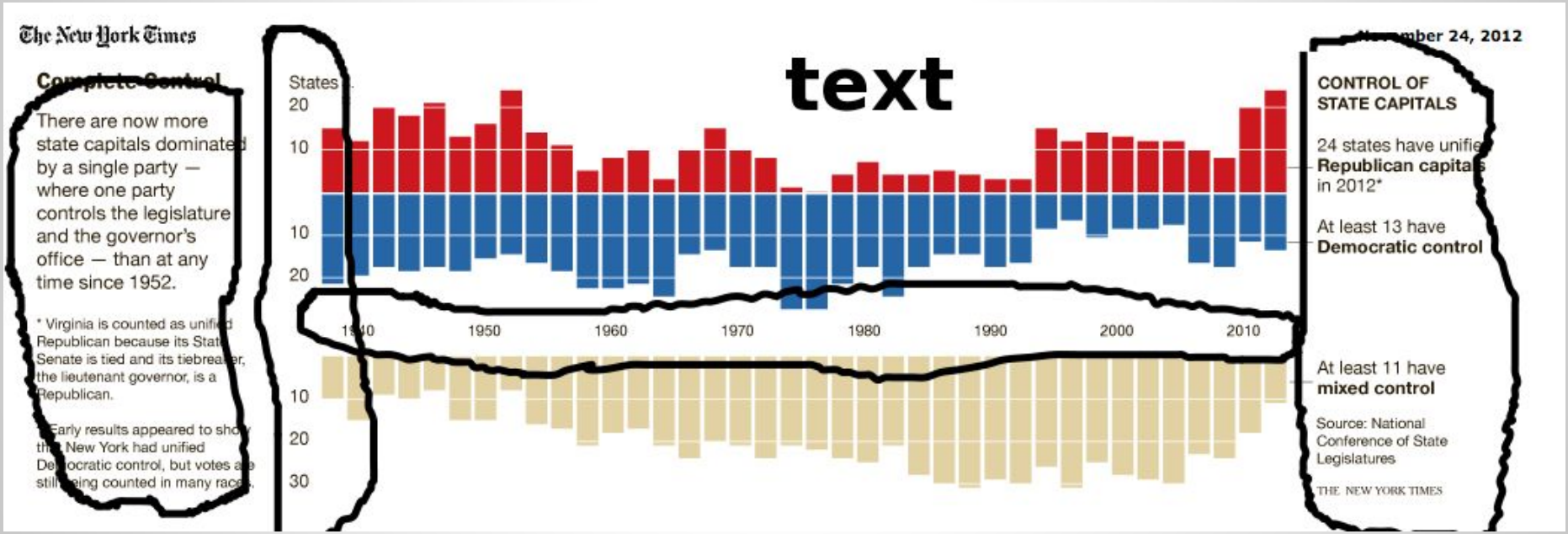
Bar Chart


The New York Times
November 24, 2012
Complete Control
There are now more state capitals dominated by a single party — where one party controls the legislature and the governor's office — than at any time since 1952.
* Virginia is counted as unified Republican because its State Senate is tied and its tiebreaker, the lieutenant governor, is a Republican.
† Early results appeared to show that New York had unified Democratic control, but votes are still being counted in many races.
States
20
10
10
20
10
20
30
1940
1950
1960
1970
1980
1990
2000
2010
lines
CONTROL OF STATE CAPITALS
24 states have unified Republican capitals in 2012*
At least 13 have Democratic control
At least 11 have mixed control
Source: National Conference of State Legislatures
THE NEW YORK TIMES

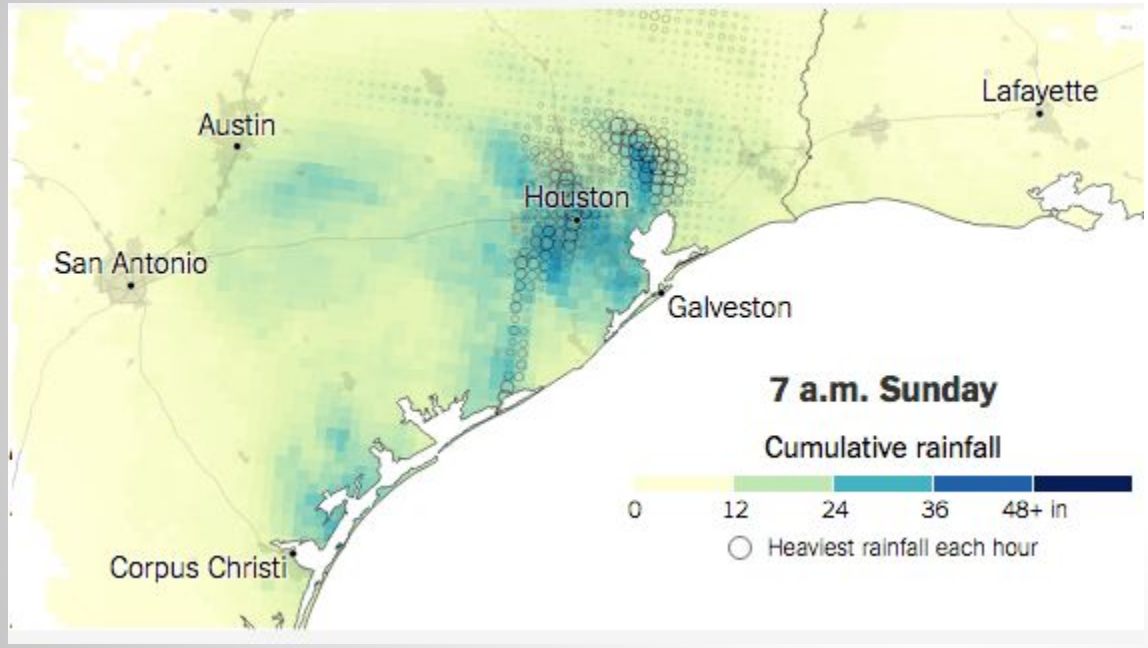
Bar Chart


The New York Times
Complete Control
There are now more state capitals dominated by a single party — where one party controls the legislature and the governor's office — than at any time since 1952.
* Virginia is counted as unified Republican because its State Senate is tied and its tiebreaker, the lieutenant governor, is a Republican.
† Early results appeared to show that New York had unified Democratic control, but votes are still being counted in many races.
shapes
States
10
10
20
30
1940
1960
1990
2000
November 24, 2012
CONTROL OF STATE CAPITALS
24 states have unified Republican capitals in 2012*
At least 13 have Democratic control
At least 11 have mixed control
Source: National Conference of State Legislatures
THE NEW YORK TIMES

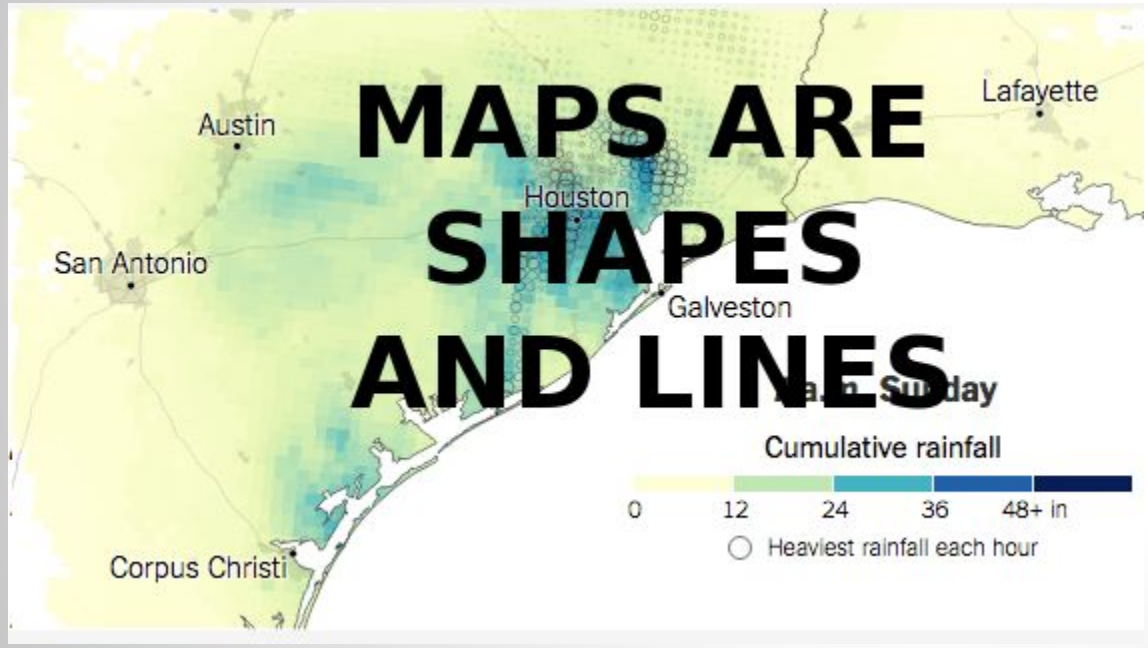
Bar Chart


The New York Times
Complete Control
There are now more state capitals dominated by a single party — where one party controls the legislature and the governor's office — than at any time since 1952.
* Virginia is counted as unified Republican because its State Senate is tied and its tiebreaker, the lieutenant governor, is a Republican.
Early results appeared to show that New York had unified Democratic control, but votes are still being counted in many races.
States
20
10
10
20
10
20
30
1940
1950
1960
1970
1980
1990
2000
2010
text
December 24, 2012
CONTROL OF STATE CAPITALS
24 states have unified Republican capitals in 2012*
At least 13 have Democratic control
At least 11 have mixed control
Source: National Conference of State Legislatures
THE NEW YORK TIMES

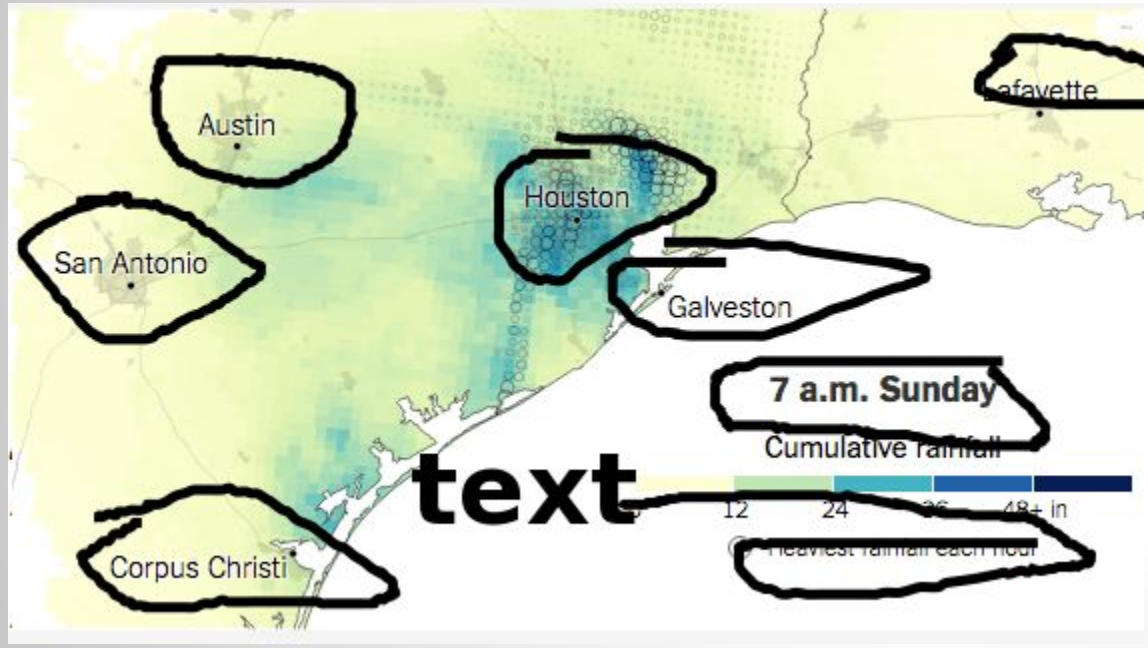
Map


Austin
Houston
Lafayette
San Antonio
Galveston
Corpus Christi
7 a.m. Sunday
Cumulative rainfall
0
12
24
36
48+ in
Heaviest rainfall each hour

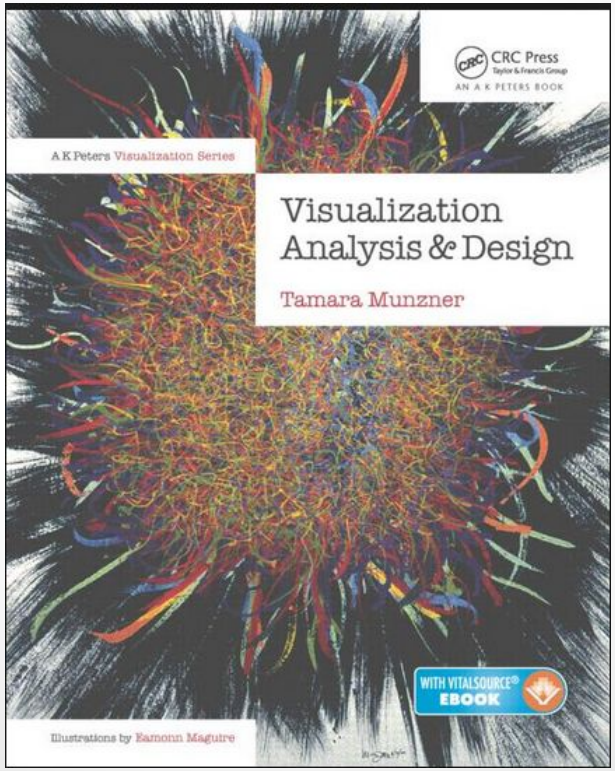
Map


MAPS ARE
SHAPES
AND LINES
Austin
Houston
San Antonio
Galveston
Lafayette
Corpus Christi
Cumulative rainfall
0
12
24
36
48+ in
Heaviest rainfall each hour

Map


Austin
Houston
San Antonio
Galveston
Corpus Christi
7 a.m. Sunday
Cumulative rainfall
text
12
24
48+ in

Tamara Munzner

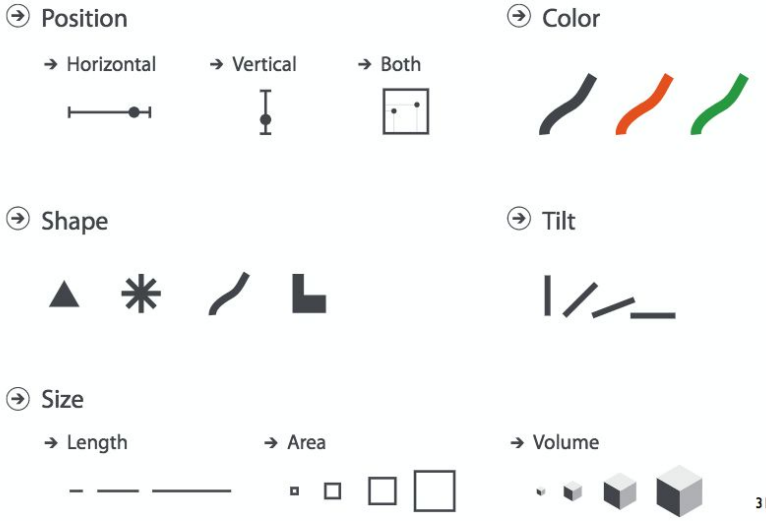


Marks & Channels

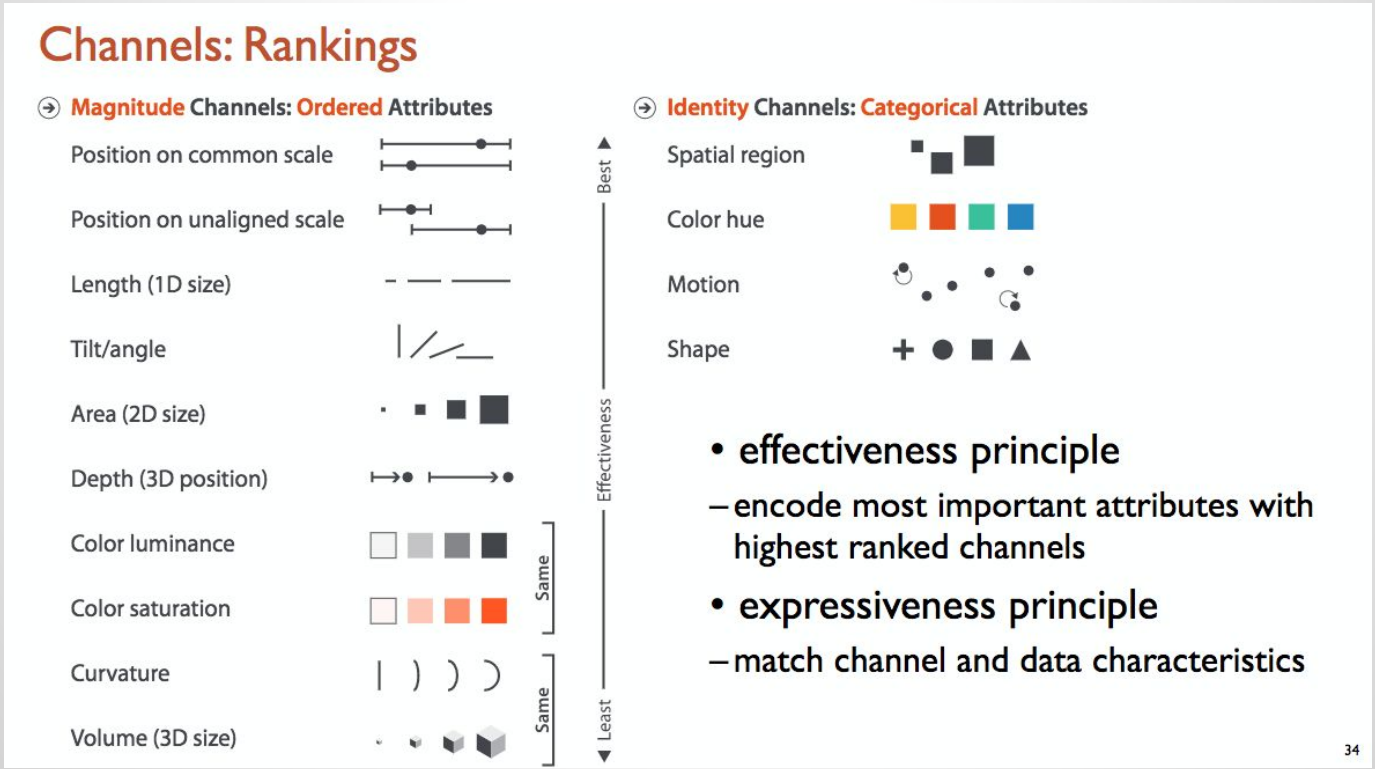
Definitions: Marks and channels

- marks
  - geometric primitives

- channels
  - control appearance of marks

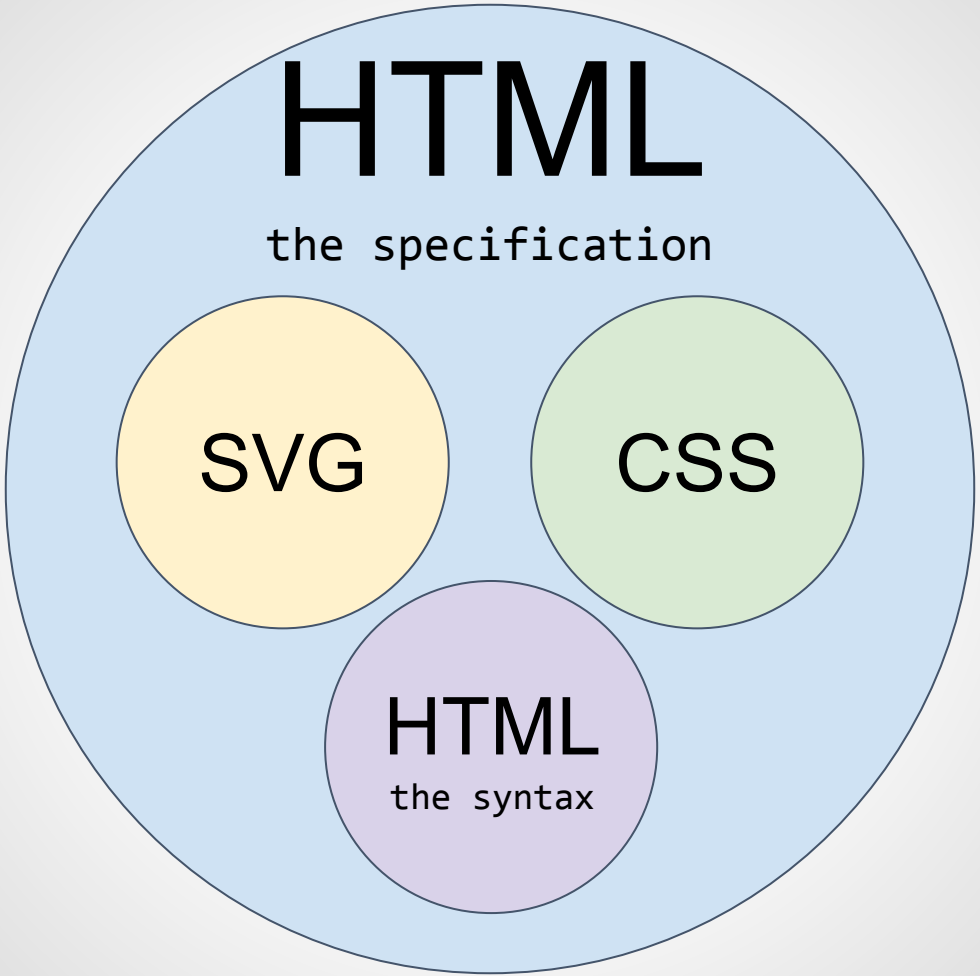


Channels

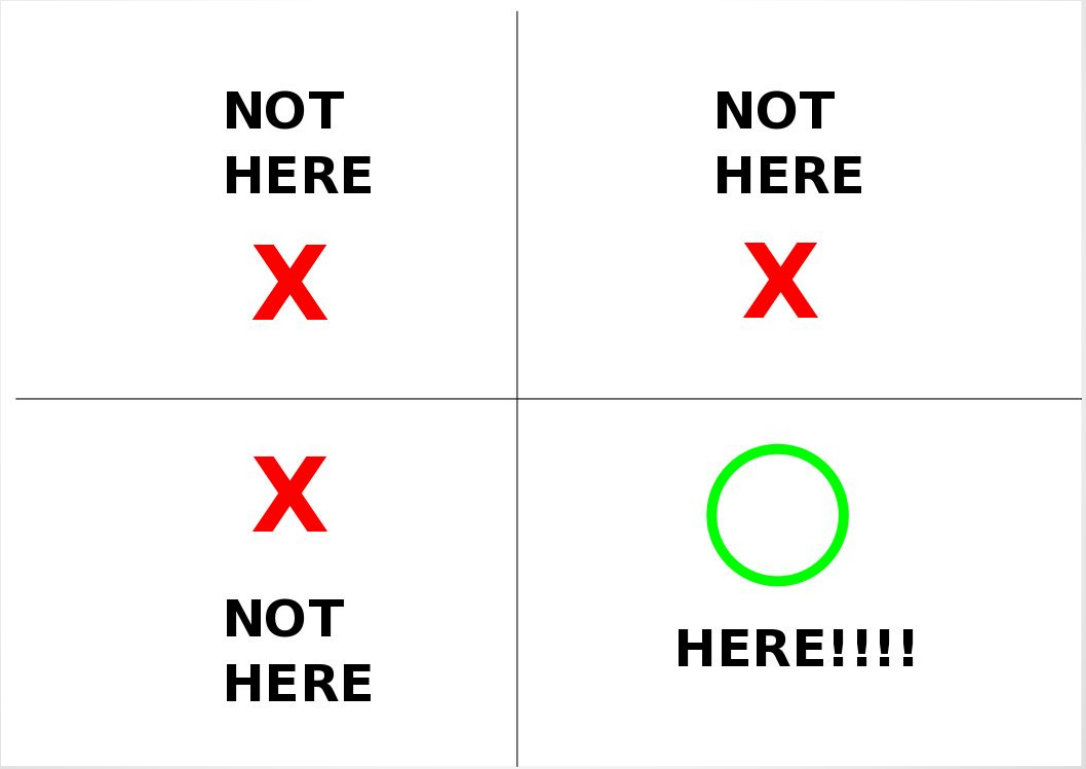

Channels: Rankings
Magnitude Channels: Ordered Attributes
Position on common scale
Position on unaligned scale
Length (1D size)
Tilt/angle
Area (2D size)
Depth (3D position)
Color luminance
Color saturation
Curvature
Volume (3D size)
Same
Same
Best
Effectiveness
Least
Identity Channels: Categorical Attributes
Spatial region
Color hue
Motion
Shape
• effectiveness principle
– encode most important attributes with highest ranked channels
• expressiveness principle
– match channel and data characteristics
34

We will cover:

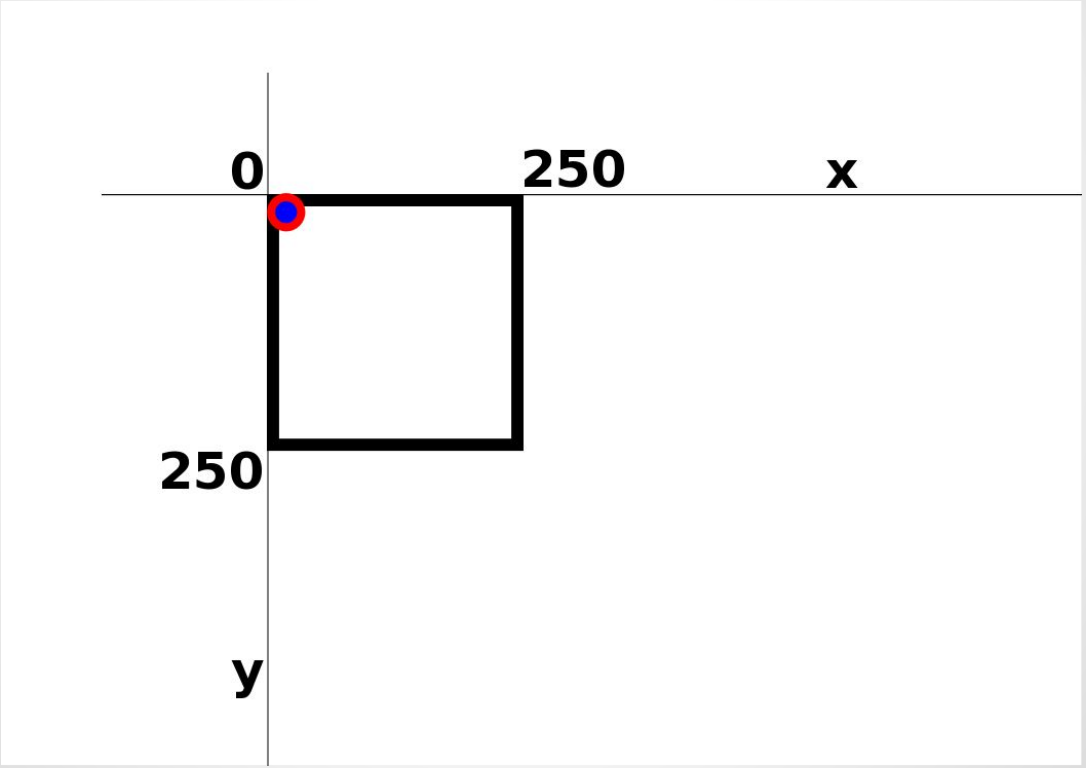
1. The components of a data visualization
2. How svg shapes are created
3. How to select svg shapes with D3.js
4. JSON and JavaScript .map()
5. How to add data onto the screen using D3.js


HTML
the specification
SVG
CSS
HTML
the syntax

YOUR SCREEN IS THE BOTTOM RIGHT

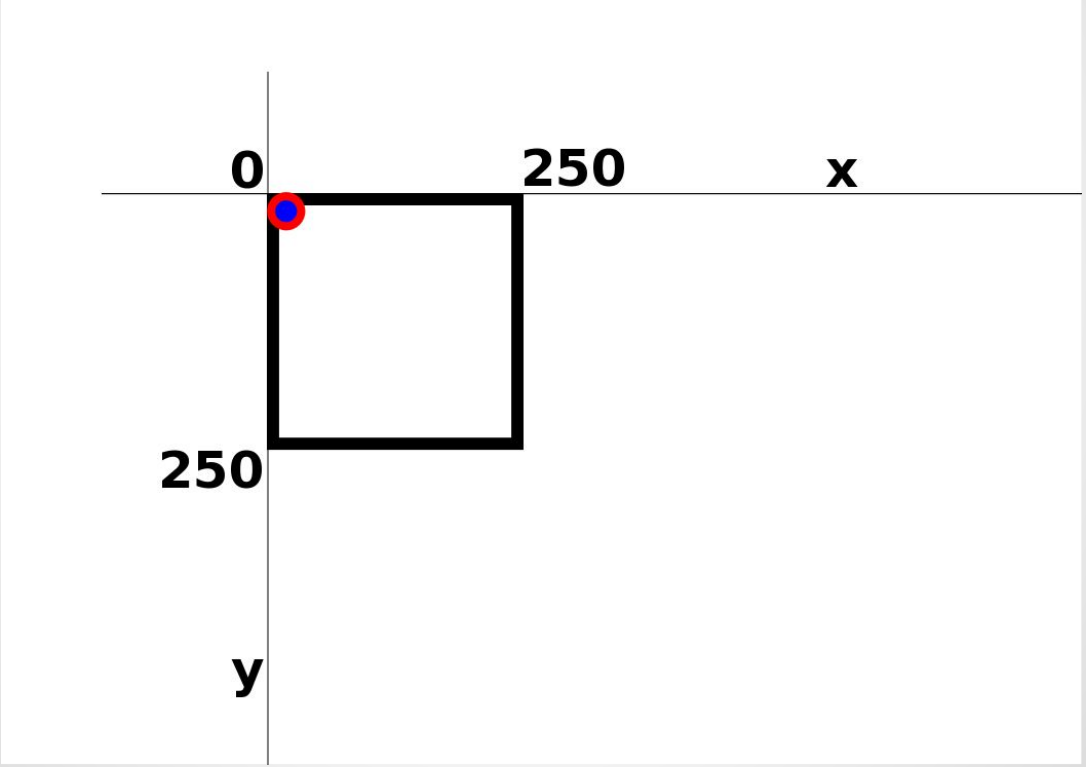


<rect x="0" y="0" width="250" height="250" />



<rect x="0" y="0" width="250" height="250" />

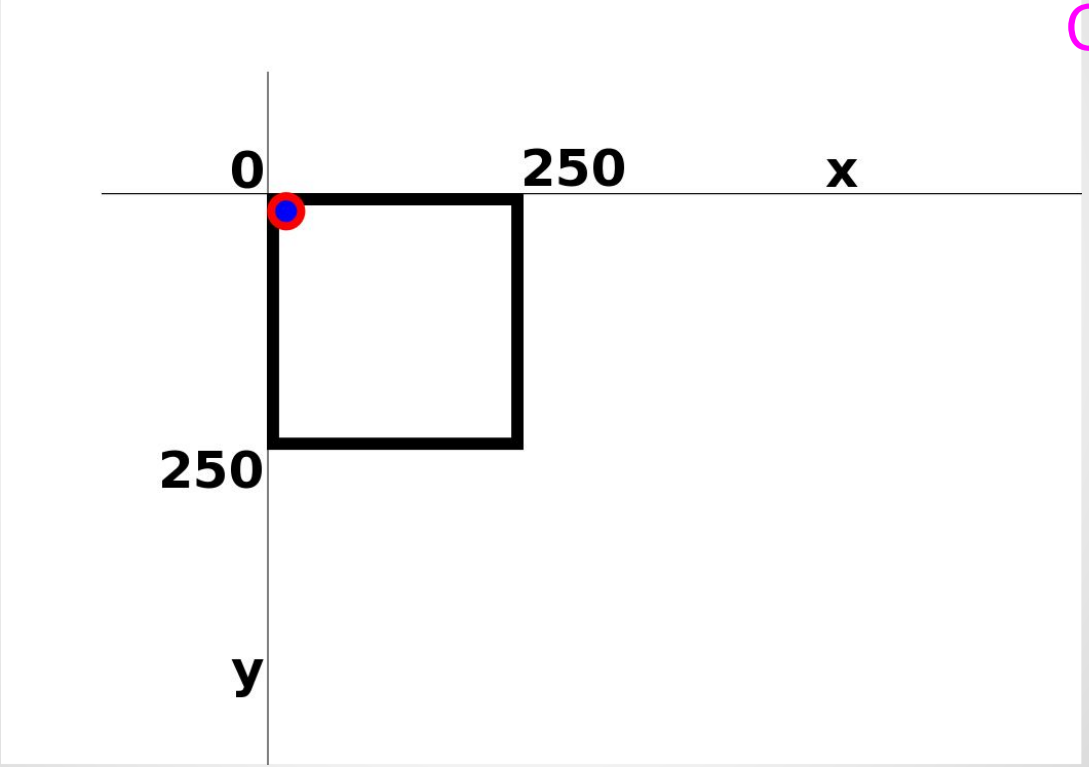
MARK



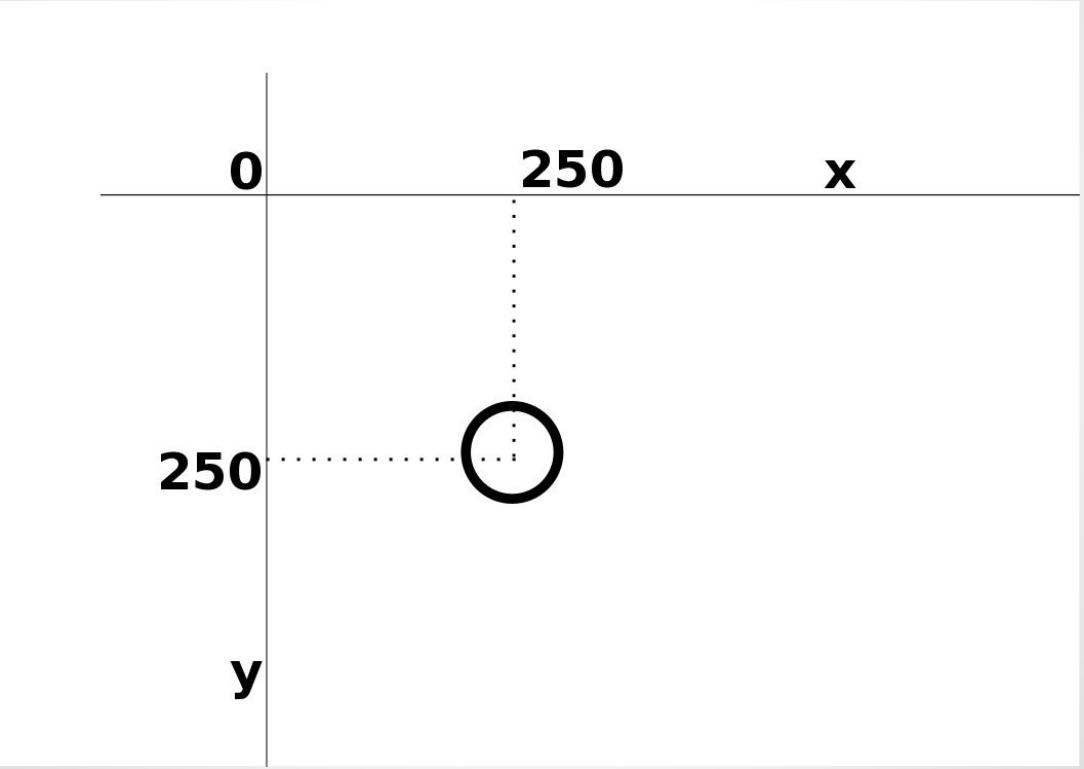
<rect x="0" y="0" width="250" height="250" />

MARK

CHANNELS

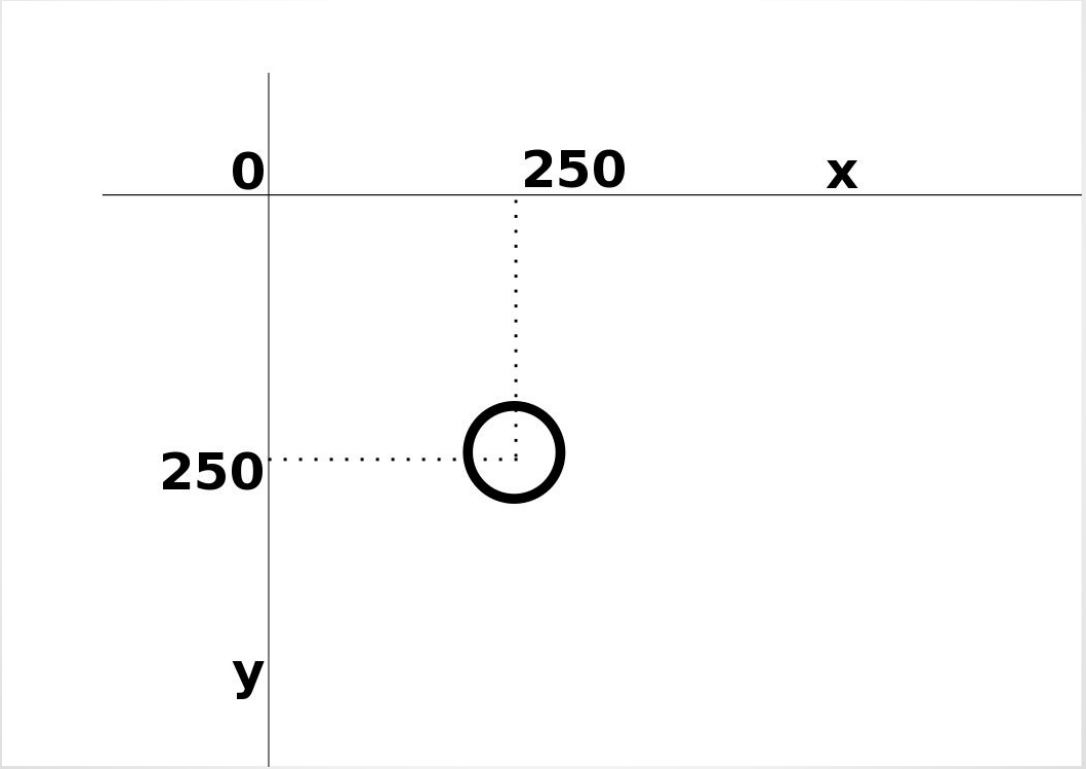


<circle cx="250" cy="250" r="50" />



<circle cx="250" cy="250" r="50" />

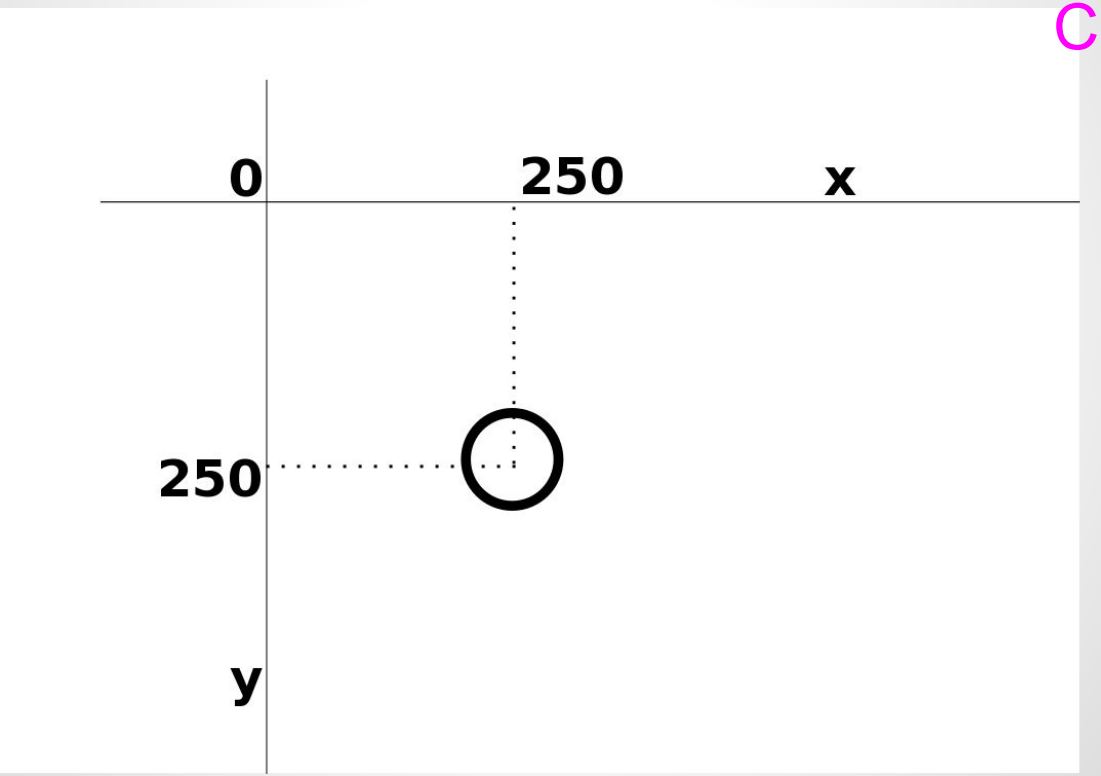
MARK



<circle cx="250" cy="250" r="50" />

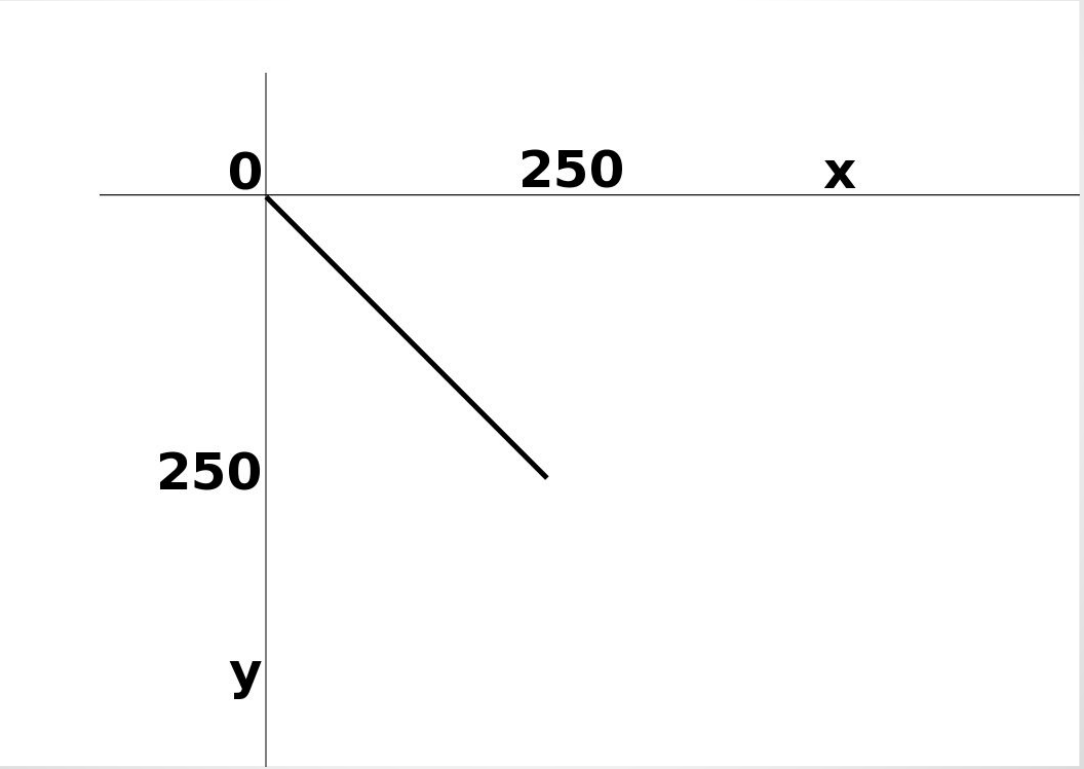
MARK

CHANNELS



<line x1="0" y1="0" x2="250" y2="250"
stroke="black"/>

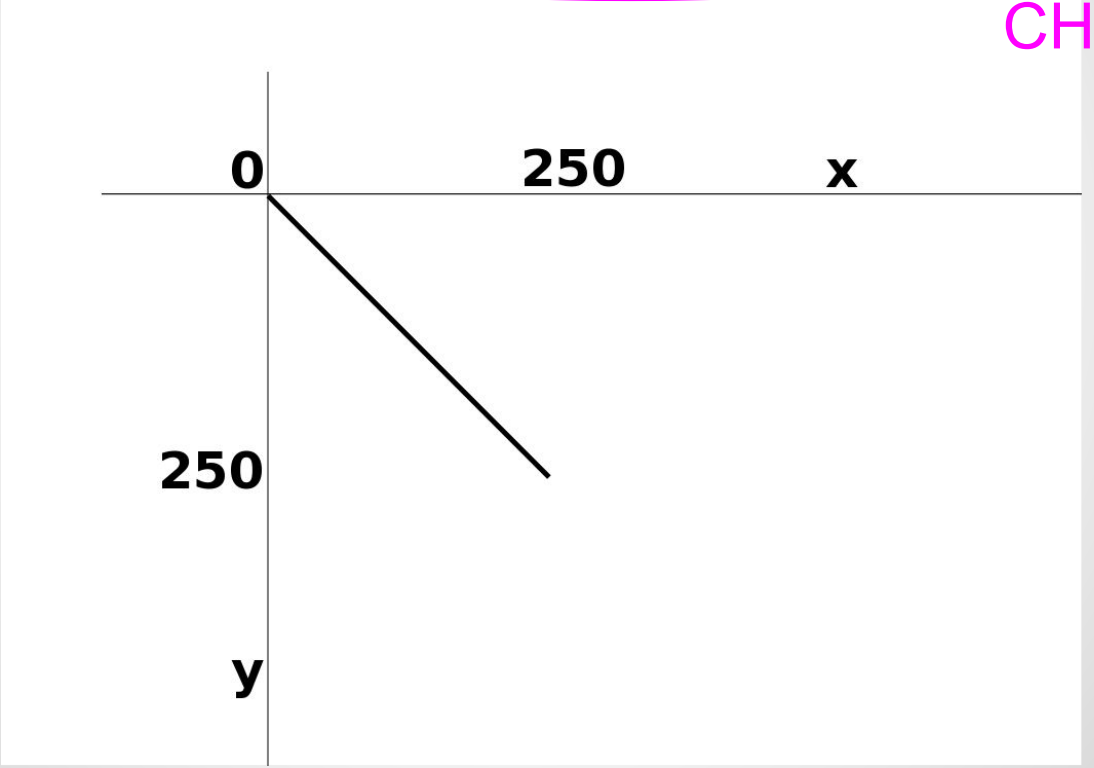
MARK



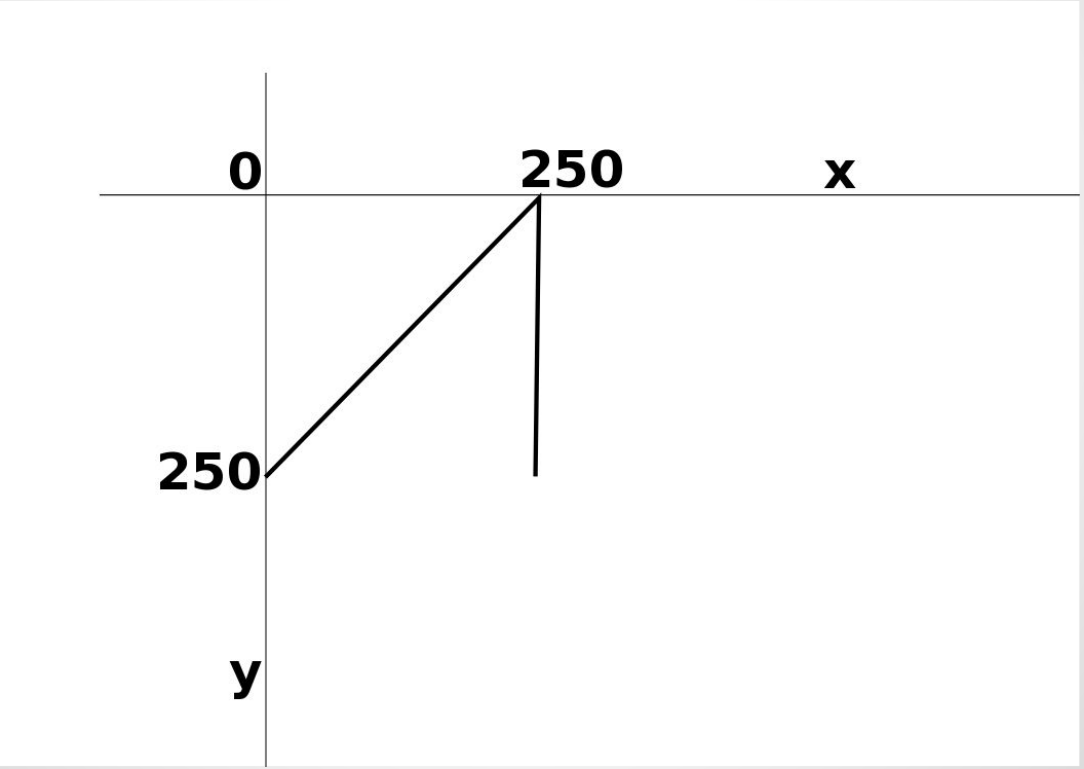
<line x1="0" y1="0" x2="250" y2="250"
stroke="black"/>

MARK

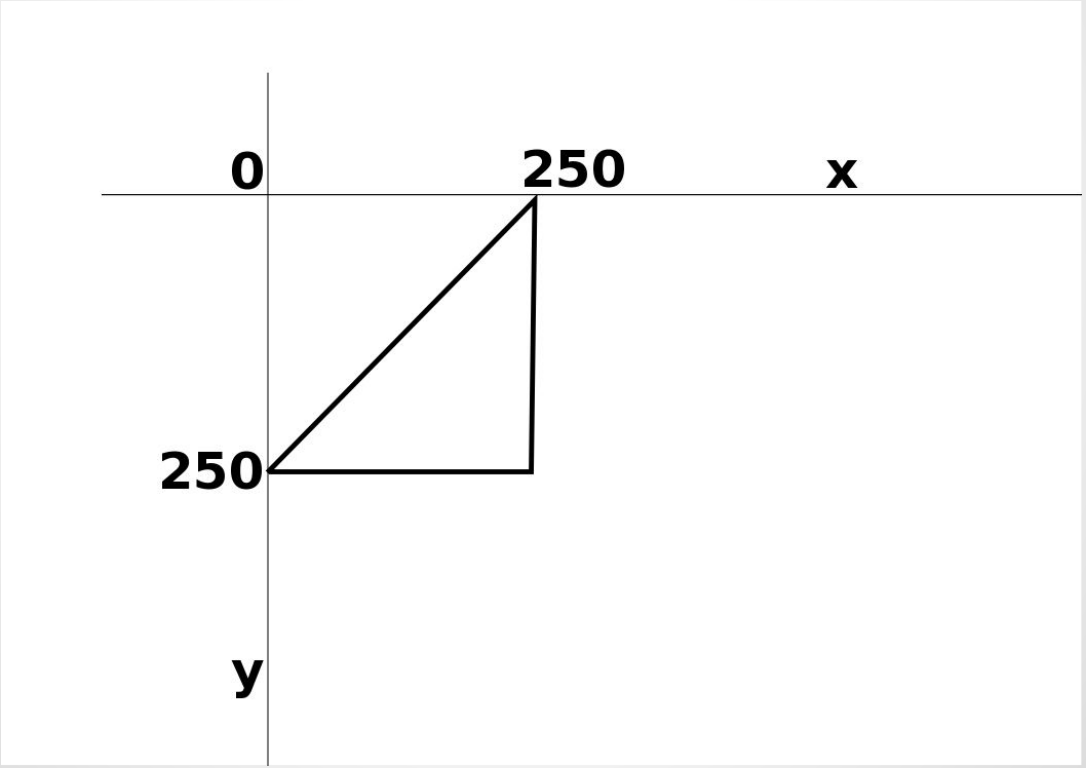
CHANNELS



<path d="M 0 250 L 250 0 L 250 250"
style="fill: transparent; stroke: black"/>



<path d="M 0 250 L 250 0 L 250 250 Z"
style="fill: transparent; stroke: black"/>



CODE!!!!

https://d3js.org/

https://github.com/beemyfriend/intro_d3/

We will cover:

1. The components of a data visualization
2. How svg shapes are created
3. How to select svg shapes with D3.js
4. JSON and JavaScript .map()
5. How to add data onto the screen using D3.js

We will cover:

1. The components of a data visualization
2. How svg shapes are created
3. How to select svg shapes with D3.js
4. JSON and JavaScript .map()
5. How to add data onto the screen using D3.js

We will cover:

1. The components of a data visualization
2. How svg shapes are created
3. How to select svg shapes with D3.js
4. JSON and JavaScript .map()
5. How to add data onto the screen using D3.js

AWESOME RESOURCES:

D3 Slack Channel: https://d3-slackin.herokuapp.com/
Curran's Data Viz Course: https://curran.github.io/dataviz-course-2018/
bl.ocks: http://blockbuilder.org/search
Nadieh Bremer & Shirley Wu: http://www.datasketch.es/
D3.js in Action: https://www.manning.com/books/d3js-in-action-second-edition