* Resources:
  + <https://cartodb.github.io/customer-education/builder/>
* Accounts
  + DCP Builder
  + Individual division
* Data import
  + Shapefile (zipped)
  + GeoJSON
  + CSV/Excel
  + Projection: default is EPSG 4326/WGS84
  + Data editing
* Style
  + Point Layer
    - Point: size; color; brackets; transparency/alpha; icons; stroke; blending; label
    - Square; Hexbin; Heatmap; Time series
  + Line Layer
  + Polygon Layer
* Pop-up
  + Click/hover
  + Rename fields
  + Image header: must be first field; url
* Legend
  + Layer title
  + Subtitle
  + Color/size
* Layers
  + Map title
  + Order of layers
  + Layer selector
  + Base map
  + Duplicate map/layer
* Publish
  + Private; completely public; public with link; public with password
  + Update
  + Link/embed
  + Export to image (without legends/widgets)
  + Favorites/Lock
* Analyses
  + Geocoding
  + Joining table
  + Link 2nd layer
  + Clustering
  + Centroids
* SQL
  + Update data with same schema
  + Filter

SELECT \* FROM dcptransportation.citibikestation

WHERE boro='M'

* + Case when

SELECT

\*,

CASE

WHEN e202010 >= 0

AND e202010 <= 1000 THEN '0-1000'

WHEN e202010 > 1000

AND e202010 <= 2000 THEN '1001-2000'

ELSE '>2000'

END AS category

FROM

dcptransportation.subwayridership

* + Table joining

SELECT

modzcta\_2010\_wgs1984\_geo.\*,

data\_by\_modzcta.covid\_case\_count

FROM

dcptransportation.modzcta\_2010\_wgs1984\_geo,

dcptransportation.data\_by\_modzcta

WHERE

modzcta\_2010\_wgs1984\_geo.modzcta = data\_by\_modzcta.modified\_zcta

* + Spatial Join

SELECT

citibikestation.\*,

modzcta\_2010\_wgs1984\_geo.modzcta

FROM

dcptransportation.citibikestation,

dcptransportation.modzcta\_2010\_wgs1984\_geo

WHERE

ST\_Intersects(citibikestation.the\_geom, modzcta\_2010\_wgs1984\_geo.the\_geom)

* CSS
  + Zoom-based labeling: <https://carto.com/help/tutorials/adding-labels-to-your-map/#zoom-based-styling-for-text-labels>

#layer [zoom>=12] {

marker-width: 7;

marker-fill: #ff0015;

marker-fill-opacity: 0.9;

marker-allow-overlap: true;

marker-line-width: 1;

marker-line-color: #FFFFFF;

marker-line-opacity: 1;

}

#layer [zoom>=15]::labels {

text-name: [data\_stations\_short\_name];

text-face-name: 'DejaVu Sans Book';

text-size: 10;

text-fill: #FFFFFF;

text-label-position-tolerance: 0;

text-halo-radius: 1;

text-halo-fill: #6F808D;

text-dy: -10;

text-allow-overlap: true;

text-placement: point;

text-placement-type: dummy;

}

* + Defining brackets
    - Specify both ends

#layer {

marker-width: 6.5;

marker-fill-opacity: 1;

marker-allow-overlap: true;

marker-line-width: 1;

marker-line-color: #FFFFFF;

marker-line-opacity: 1;

[e202009>4000]{

marker-fill: #650000;

}

[e202009>3500][e202009<=4000]{

marker-fill: #ffa800;

}

[e202009>3000][e202009<=3500]{

marker-fill: #eeff00;

}

[e202009>2500][e202009<=3000]{

marker-fill: #00ff6d;

}

[e202009>2000][e202009<=2500]{

marker-fill: #00b4ff;

}

[e202009>1500][e202009<=2000]{

marker-fill: #0077ff;

}

[e202009>1000][e202009<=1500]{

marker-fill: #9600ff;

}

[e202009>500][e202009<=1000]{

marker-fill: #ff00b4;

}

[e202009>0][e202009<=500]{

marker-fill: #ff0000;

}

}

* + - Only specify lower ends

#layer {

marker-width: 6.5;

marker-fill-opacity: 1;

marker-allow-overlap: true;

marker-line-width: 1;

marker-line-color: #FFFFFF;

marker-line-opacity: 1;

[e202009>0]{

marker-fill: #bc00ff;

}

[e202009>=2000]{

marker-fill: #ff0000;

}

}

* + - Only specify with higher ends

#layer {

marker-width: 6.5;

marker-fill-opacity: 1;

marker-allow-overlap: true;

marker-line-width: 1;

marker-line-color: #FFFFFF;

marker-line-opacity: 1;

[e202009<10000]{

marker-fill: #ff0000;

}

[e202009<2000]{

marker-fill: #bc00ff;

}

}

* Widgets
  + Category; histogram; formula; time series
  + Dynamic
  + Filter
  + Linked layers
* API
* Q&A
  + Have been having problems with the five-category limitation in category widgets. Any workarounds to increase the number of categories.
  + If possible, could you explain how to attach two datasets to a widget, for example, a timeseries that filtered more than just one file
  + I'd be curious to know if anyone has been using SQL to edit data within Carto, for example to calculate a new column based on another column's value.
  + Updating with SQL (Dara/Hannah)
  + Clustering: calculate clusters => create centroids => labeling => set zoom level