**INTRO TO CARTO**

**Supported import formats: .**csv, .tab, .shp (saved as a .zip or .gz), .kml/.kmz, .xls/.xlsx, .geojson, .gpx, .osm/.bz2, .ods, .sql

## **Add Data**

1. Log into Carto if you have an MIT account: <http://libguides.mit.edu/gis/webmap>; if you are going to be using Carto for research, you can apply for a Carto account: <https://carto.com/community/ambassadors/#started>

2. Click the New Map button in the upper right.

3. You can either upload a data file now, or start with a blank map. Files can be uploaded from your computer, online storage, or from a link. You can also search the Carto Data Library.

4. After you import a data layer, Carto will open it in a map. To add an additional data layer, click the ADD button near the top and connect to another data layer. Data layers are assigned letters A to Z as they are added. The first data layer you add will be assigned A, the next B, etc.  
5. You can sync real time data from Dropbox, using the URL (web address). Further details and demo: <https://carto.com/learn/guides/data-and-sql/sync-real-time-data>

## **View the Data Table**

1. Click the Data Layer name and then the table view button on the bottom right corner of your screen.

2. Within a table you can rename column headings, add and delete columns and rows, change the data type, edit and copy cell values. Click on the line of blue dots on the right of each cell to see these options. You can also join tables based on common columns or spatial locations.

## **Georeferencing a Table in Carto**

Georeferencing is the process of adding real coordinates –latitude and longitude information--to a data table (for example, an .excel or a .csv table) or raster data (anything with pixels, which includes images). If you have a raster map you will need to georeference it first outside Carto. **If you want to add your own custom map, see the “General\_Georefererncing.docx” file.**

1. Make sure you are in the Map View by clicking on the map view icon on the bottom right corner of your screen. Then click on the back button next to the file name in the upper left corner of your screen.

2. If your data table has latitude/longitude, street addresses, etc. click the ADD ANALYSIS under the file name. Click on the Georeference analysis, and then the blue ADD ANALYSIS button on the bottom right corner of the screen.

3. Select the type of geographic data and the appropriate columns in your data table that contain it.

More help:<https://carto.com/learn/guides/analysis/georeference>

**Geometry**:

If the data geometry is in a single column, order by longitude first, latitude second separated by a comma.

## **Add Pop-ups**

1. Click on the name/number of a data layer and then pop-up.

2. Select Click or Hover, depending on what operation you want to trigger the pop-up.

3. Select the information that you would like to pop-up by clicking the check box next to the name. These are the columns in your data table. Check “title?” if you would like this information labeled.

Now when you click on a feature, the information you have selected will pop-up.

## **Create a Legend**

1. Click on name/number of the data layer and then legend.

2. Select a style. The template options will depend on how your data are displayed.

3. To display a legend title, check the “show” box and type in the name of the legend.

## **Add an Additional Feature**

1. Draw a feature on your map by clicking the Add Feature button.

2. The feature will be the same type as the others in that layer (point, line, or polygon, depending on your data). Click a point on the map to add a point/line/polygon and click Done.

3. Click back to the Data View (button at the top of the screen) and you will see your feature at the bottom of the table. You can enter information about this new location by clicking on each field.

## **Analyses and Custom Queries**

To form “non-canned” queries, perform calculations, and conduct basic analysis, enter a statement in the SQL box. Learn more:

· <http://docs.cartodb.com/cartodb-platform/sql-api/>

· <http://academy.cartodb.com/courses/sql-postgis/intro-to-sql-and-postgis/>

· <http://docs.cartodb.com/cartodb-platform/sql-api/making-calls/>

· <http://academy.cartodb.com/courses/sql-postgis/joining-data/>

## **Sharing Your Map**

Now that you have finished your map you can share it.

1. Use the Export Image button at the top left to export all or some of your map as an image.

2. Click the Publish button at the top right of the screen. You can send others the link, embed your map in a website, or add the map to your applications.

Publish button to embed map in website.

**Widgets**:

These are, essentially, the visualizations of the columns in your data file(s). When you use widgets, the area to the left of your map are data and basemap layers (visible or not), to the right are some of the columns in all the visible layers. You can select what layers you can see on the left.

**HELP!**

Webinars, Training, Guides:

<https://carto.com/learn/guides>

<https://carto.com/webinars>

<http://go.carto.com/training-series-carto-builder>

Tips and Tricks:

<https://carto.com/docs/tips-and-tricks>

Credits: Ann Graham, Ece Turnator MIT Libraries. 2016-2017

Cambridge-related data files are available from THE CAMBRIDGE OPEN DATA PLATFORM: <http://www.cambridgema.gov/departments/opendata>