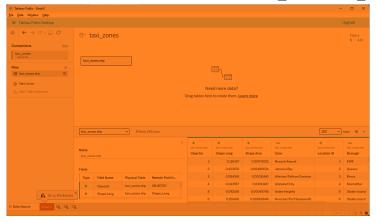
Instructions for Making Time Series Map on Tableau with Slider:

This set of instructions goes into a bit more detail than the `99_tableau_processing.ipynb` notebook

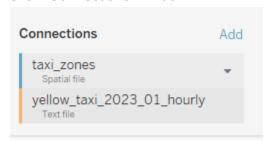
- 1. Open Tableau Public
- 2. Load Datasets
 - a. This is done via the blue "Connect Menu"



- b. Load the Geometric Map Data
 - i. Click Spatial File
 - ii. Load taxi-forecast\assets\tableau\taxi_zones\taxi_zones.shp



- c. Load the Time Series Data
 - i. Click 'Connections > Add'



ii. Load desired taxi time series (.csv)

1. Example: taxi-forecast\assets\tableau\yellow_taxi_2023_01_hourly.csv



iii. Convert the data type of 'Pickup Datetime' to Date & Time





- 3. Join Both Datasets
 - a. Click the Dropdown Menu on the taxi_zones.shp box
 - ☐ taxi_zones.shp (Multiple Connections)

taxi_zones.shp



Need more data?

Drag tables here to relate them. Learn more

b. Click Open



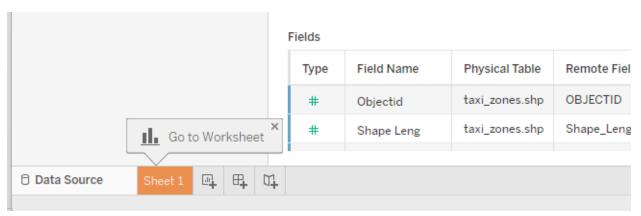
c. Drag & Drop the .csv file to the updated central page

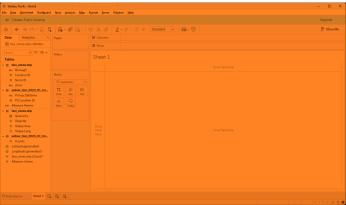


- d. Select Right Join
 - i. Join On Location_ID = PU_Location_ID

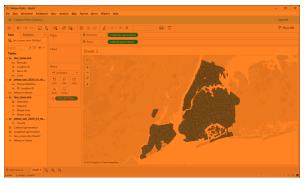


- ii. Note, this should take care of the fact that we only want to display Manhattan-only taxi zones
- 4. With joined data (geometric + time series), we can create time series of maps
- 5. On the lower set of tabs click "Sheet 1"

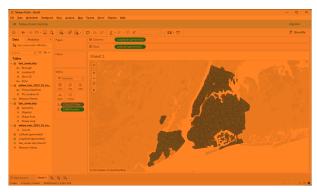




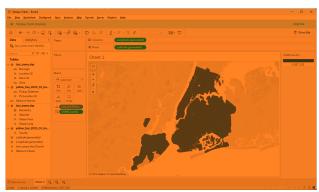
6. Create Map Data by Drag & Dropping `Tables > taxi_zones.shp > Geometry` to the `Marks` box



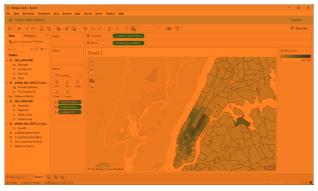
7. Start Placing the Count Data by Drag & Dropping `Tables > time_series.csv > Counts` to `Marks`



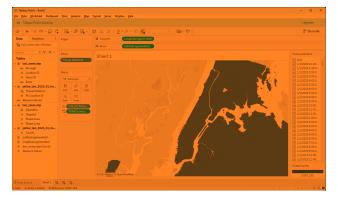
- a. If you drag and drop counts to the box saying `Color`, the taxi zones will automatically be color-coded based on counts
- b. Else, select the icon to the left of `SUM(Counts)` in the `Marks` box and select `Color`



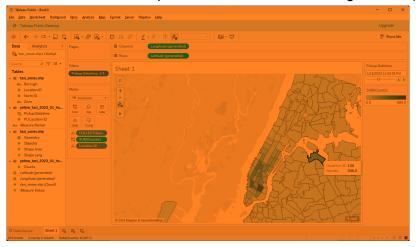
- c. Note, the taxi zones are currently color-coded by the total amount of "Counts" in the dataset. We fix this in next step.
- 8. Drag & Drop `Location ID` to `Marks`. This will convert the map of summed counts to summed counts per taxi zone.



- 9. Filter by Time by Drag & Dropping `Tables > time_series.csv > Pickup Datetime` to `Marks`
 - a. A Filter Field Window will Pop Up. Select "Individual Dates and Times"
 - b. Be sure all dates are selected by clicking the "Select From List" bullet
- 10. Display a Slider to Select Different Hours
 - a. In 'Filters', hover over 'Pickup Datetime' and select the dropdown menu
 - b. Select "Show Filter"



c. In the newly added filter to the right, convert this to slider by again hovering over the header, select the dropdown menu, and select "Single Value (slider)"



11. To publish this, with a slider included, need to make a dashboard in the bottom tabs and drag & drop the worksheet to the dashboard