

PRODUCT USER'S MANUAL

Clean Datasets

There are multiple options to clean data, including using Excel, Tableau Prep, Programming process such as using Pandas Library within Python.

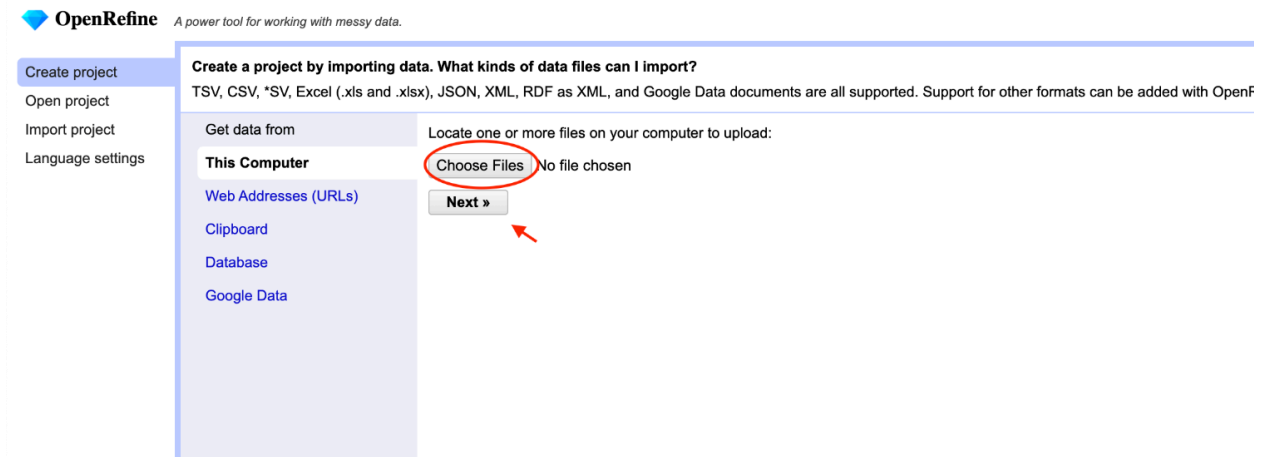
We used **OpenRefine** for this process.

1. Download and Open OpenRefine:

- a. Open OpenRefine and it should open in your Web Browser

2. Create a project:

- a. Upload the dataset file that you want to clean and click **Next**



- b. Make sure the data is showing clearly in the table
 - i. If there are issues, you can change the 'Columns are separated by'
 1. *This works by separating the columns by different options such as commas, tabs, or custom option*
- c. Click Create Project in the Top Right corner

3. Clean the data:

OpenRefine A power tool for working with messy data.

Create project | **start over** | Configure parsing options | Project name: Cleaned Data Calls For Service | Tags: | Create project »

	Date	Time	DOW	Incident Type	Location	Latitude	Longitude	Unit ID
1.	01/01/2024	00:11	Monday	MISSING PERSON	8300 Donoghue Dr	38.9747171	-76.881953	PP/NC10
2.	01/01/2024	00:19	Monday	FAMILY DISPUTE	5904 Mentana St	38.9647559	-76.878743	
3.	01/01/2024	01:36	Monday	THREATS COMPLAINT	5433 85th Ave Apt 102	38.9565255	-76.8669547	PP/NC11
4.	01/01/2024	03:28	Monday	PREMISE CHECK	8461 Annapolis Rd Eb	38.957426	-76.8692574	PP/NC10
5.	01/01/2024	03:59	Monday	911 DISCONNECT	8101 Quentin St	38.9682076	-76.8841783	
6.	01/01/2024	04:09	Monday	911 DISCONNECT	8101 Quentin St	38.9682076	-76.8841783	
7.	01/01/2024	04:33	Monday	PREMISE CHECK	8500 Annapolis Rd Wb	22.9867569	87.8549755	
8.	01/01/2024	04:35	Monday	911 DISCONNECT	8101 Quentin St	38.9682076	-76.8841783	
9.	01/01/2024	05:58	Monday	CHECK WELFARE	8500 Annapolis Rd Wb	22.9867569	87.8549755	PP/NC20
10.	01/01/2024	07:32	Monday	NOISE COMPLAINT	8500 Annapolis Rd Wb	22.9867569	87.8549755	PP/NC20
11.	01/01/2024	08:45	Monday	LOUD MUSIC COMPLAINT	5522 Karen Elaine Dr	38.9572854	-76.8802155	PP/NC20
12.	01/01/2024	09:13	Monday	PREMISE CHECK	8461 Annapolis Rd Eb	38.957426	-76.8692574	PP/NC20
13.	01/01/2024	09:14	Monday	LOUD MUSIC COMPLAINT	5522 Karen Elaine Dr	38.9572854	-76.8802155	
14.	01/01/2024	09:46	Monday	PREMISE CHECK	5300 85th Ave, New Carrollton, MD 20784	38.9530489	-76.8693485	PP/NC20
15.	01/01/2024	09:51	Monday	THEFT REPORT	7519 Riverdale Rd Eb Apt 1942	38.9582307	-76.8821958	PP/NC20
16.	01/01/2024	09:54	Monday	NOISE COMPLAINT	7601 Fontainebleau Dr	38.957884	-76.8789723	
17.	01/01/2024	10:12	Monday	TRAFFIC COMPLAINT	Malissa St / Cathedral Ave	38.9754499	-76.8778037	PP/NC20
18.	01/01/2024	10:30	Monday	PREMISE CHECK	6412 Carrollton Ct	41.6032207	-73.087749	PP/NC20
19.	01/01/2024	10:33	Monday	LOUD MUSIC COMPLAINT	5518 Karen Elaine Dr	38.9576435	-76.8799327	

Parse data as | Character encoding: US-ASCII | Update preview | ☐ Disable auto preview

CSV / TSV / separator-based files

Line-based text files | Fixed-width field text files | PC-axis text files | JSON files | MARC files | JSON-LD files | RDF/N3 files | RDF/N-Triples files

Columns are separated by: ☒ commas (CSV) ☐ tabs (TSV) ☐ custom ,

☒ Use character " to enclose cells containing column separators ☐ Trim leading & trailing whitespace from strings ☐ Escape special characters with \

☐ Ignore first 0 line(s) at beginning of file ☒ Parse next 1 line(s) as column headers ☐ Column names (comma separated)

☐ Discard initial 0 row(s) of data ☐ Load at most 0 row(s) of data

☐ Attempt to parse cell text into numbers ☒ Store blank rows ☒ Store blank cells as nulls ☐ Store file source ☐ Store archive file

- a. Clean the data through Editing Cells and making transformations such as:
 - i. Create Text facets to view different values of a column
 - ii. Ensuring dates are in the proper date format
 - iii. Ensuring numerical values are in number format
 - iv. Removing Blank or Null rows

OpenRefine Cleaned Data Calls For Service (Detailed Help csv) | Permalink | Open... | Export... | Help

Facet / Filter | Undo / Redo 0 / 0 | **2039 rows** | Extensions | Wikibase

Show as: rows | records | Show: 5 10 25 50 100 500 1000 rows | « first | < previous | 1 | next | > last »

Using facets and filters

Use facets and filters to select subsets of your data to act on. Choose facet and filter methods from the menus at the top of each data column.

Not sure how to get started? [Watch these screencasts](#)

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5.				Transform...				
6.				Common transforms	Trim leading and trailing whitespace			1783
7.				Fill down	Collapse consecutive whitespace			1783
8.				Blank down	Unescape HTML entities			755
9.				Split multi-valued cells...	Replace smart quotes with ASCII			1783
10.				Join multi-valued cells...	To titlecase			755
				Cluster and edit...	To uppercase			
				Replace...	To lowercase			
					To number			
					To date			
					To text			
					To null			
					To empty string			

- b. Once finished cleaning data, Export the dataset as Excel (.xls)

Get Tableau Public

1. Download Tableau

- a. Search on Google - "Tableau Public"

- b. Or use this link: [Tableau Public](#)
- c. Download Tableau Desktop Public Edition
 - i. Or Professional Edition (If you have purchased license)

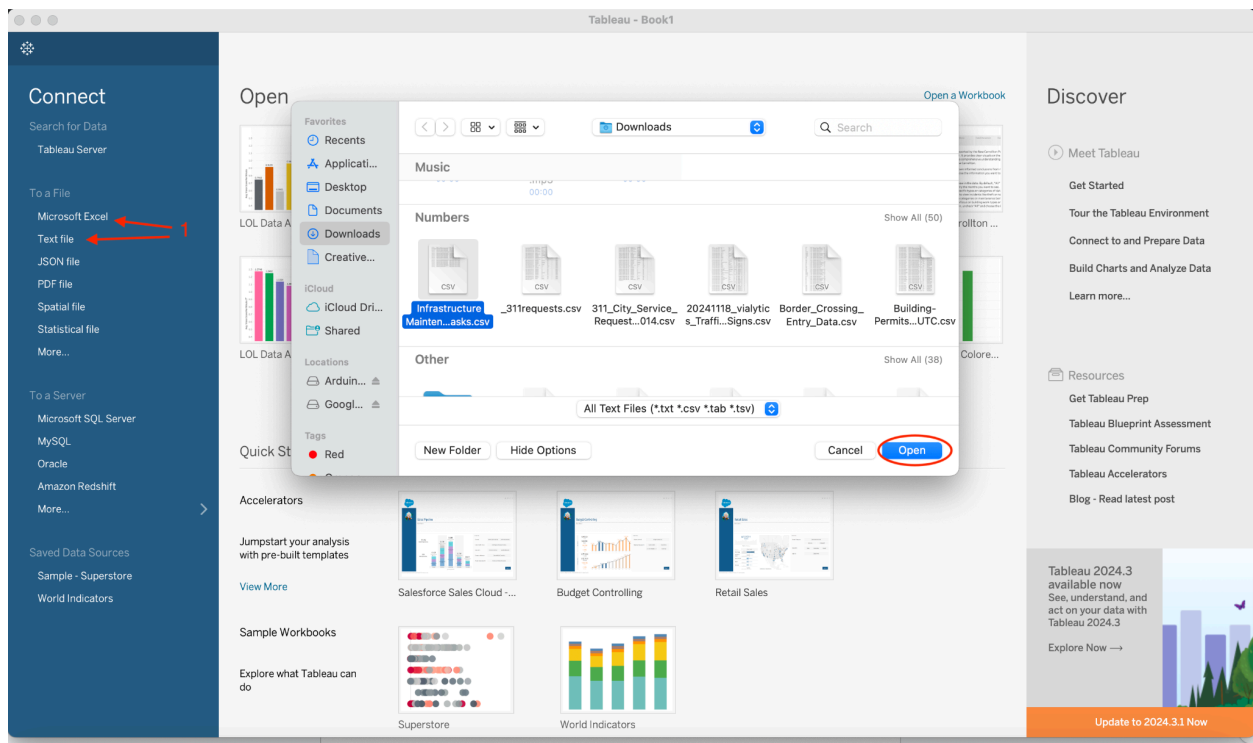
2. Sign in Using New Carrollton Credentials

- a. Top right of the Screen you will see a “sign in” button, click it and sign in using these:
- b. **Email:** newcarrollton3@gmail.com
- c. **Password:** NewCarrollton123!

Navigate Tableau Desktop Application

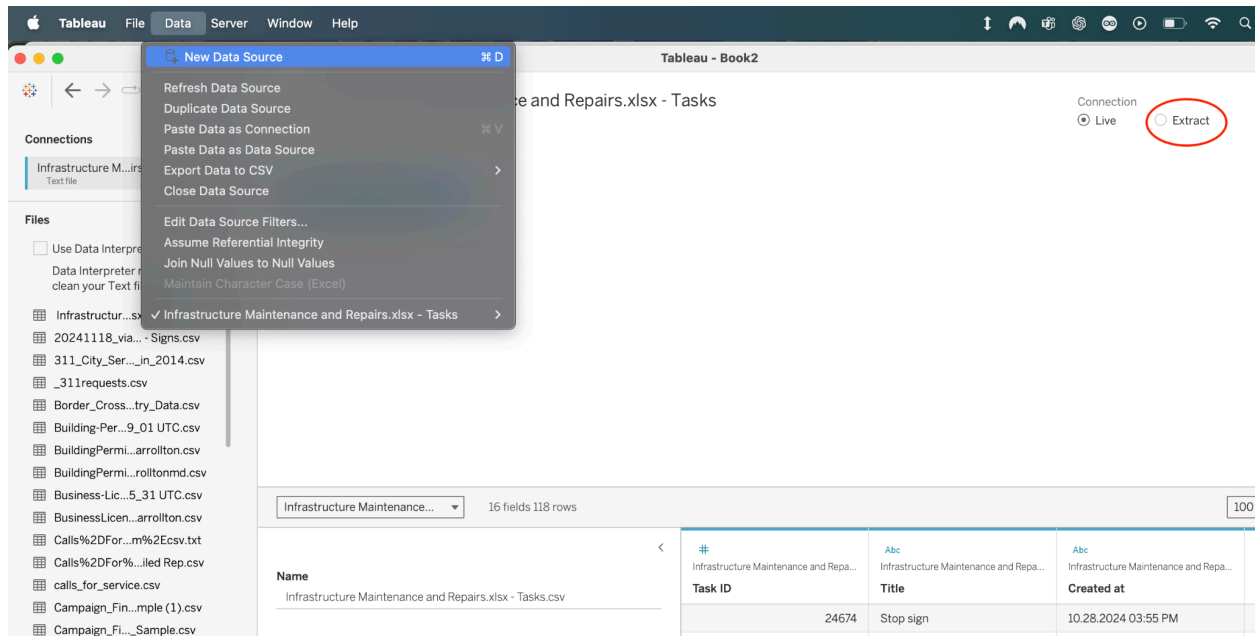
1. Open Tableau Desktop:

- a. Launch the Tableau Desktop application.
- b. On the start page, select “Open” to load the cleaned dataset (Excel file) into Tableau.



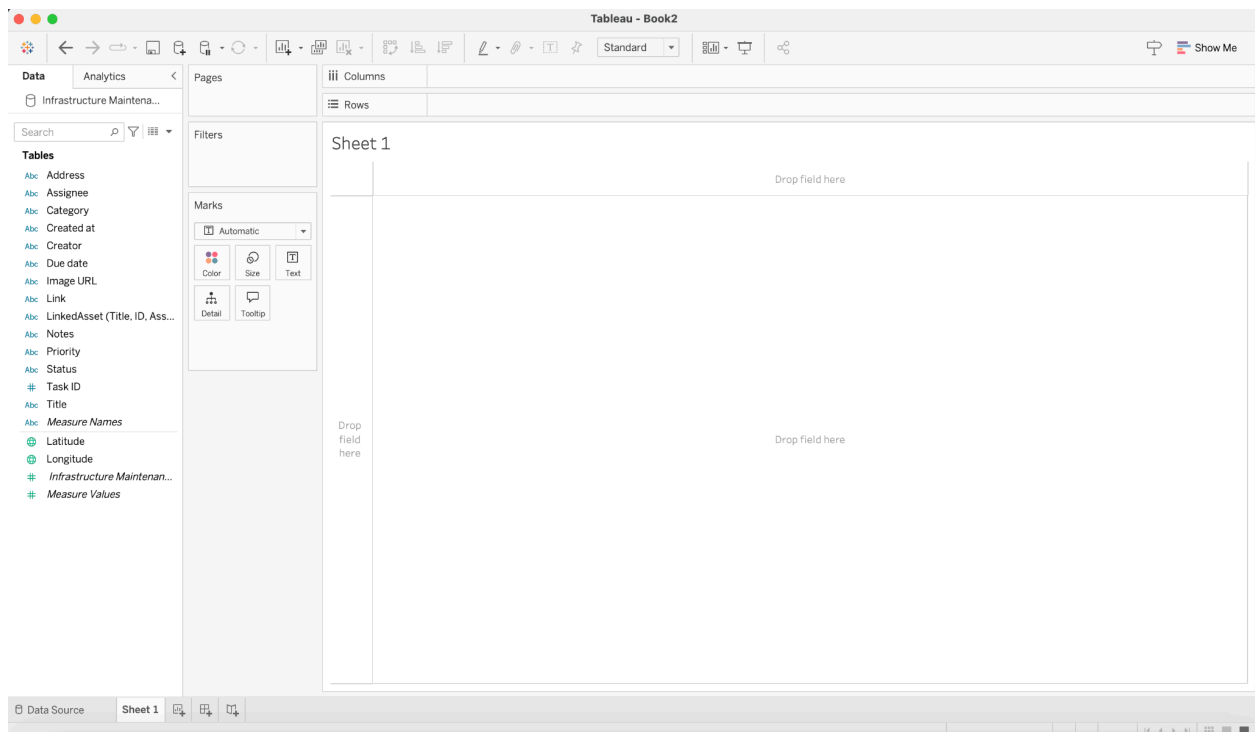
2. Connect to Your Data Source:

- a. In the Connect pane, choose the appropriate file type (e.g., Excel, CSV).
- b. Browse and select your cleaned dataset.
- c. Tableau will load the data into the Data Source tab.



3. Go to the Worksheet:

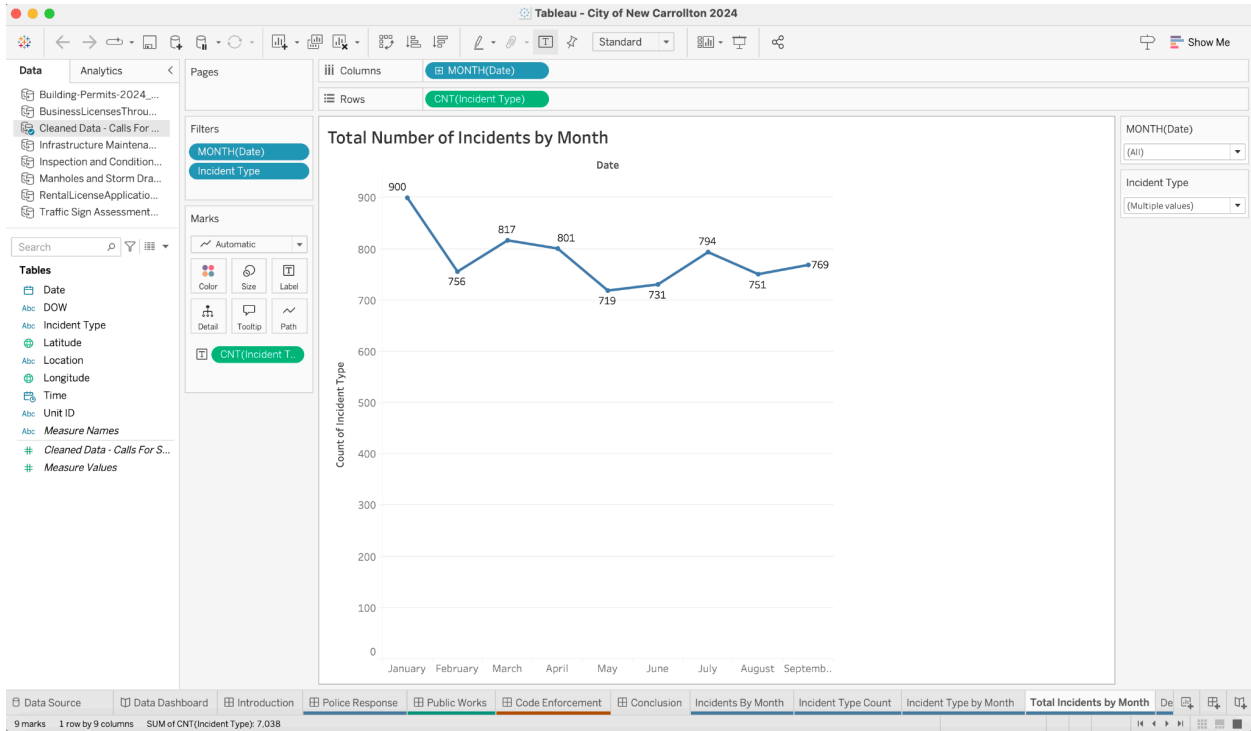
- At the bottom, click on the “Sheet 1” tab to start working with the data.
- Tableau’s workspace will now open, showing the Data Pane (left), the Columns/Rows shelves (top), and the blank canvas (center).



Editing Tableau Dashboards

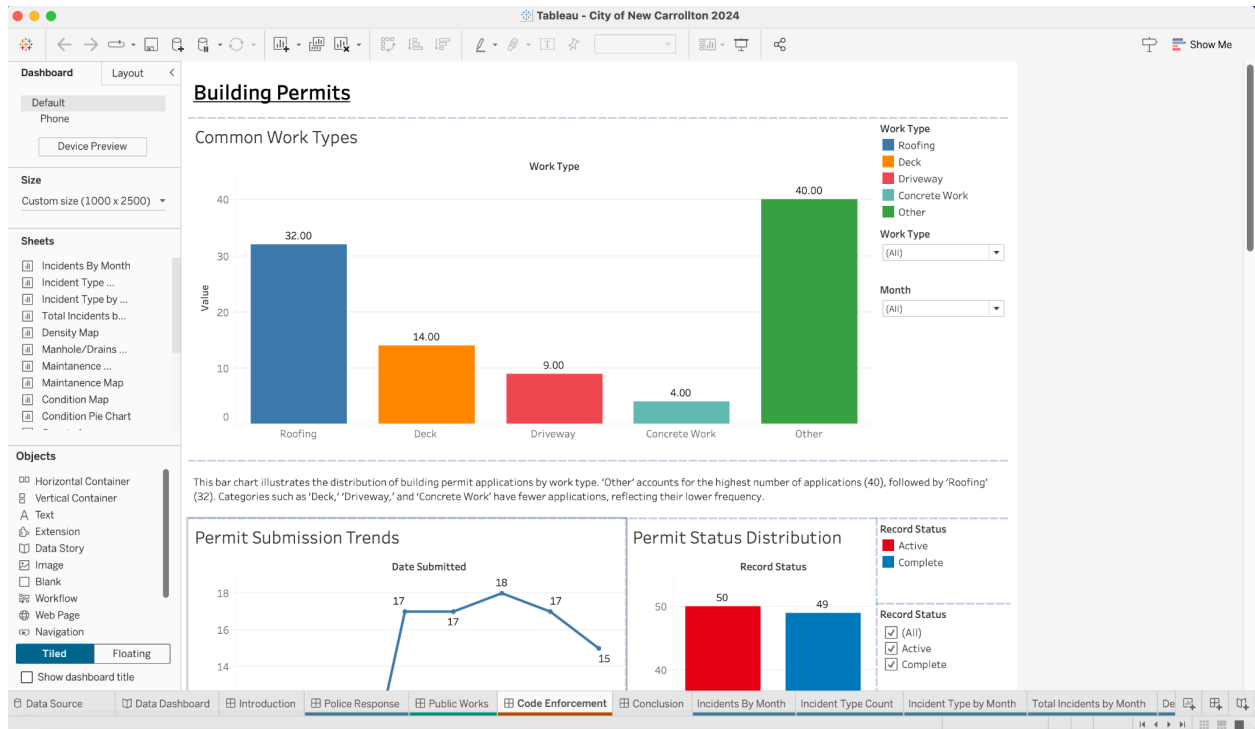
1. Start Building Visualizations:

- Drag and drop fields from the Data Pane into the Rows and Columns shelves to create charts.
- Use the “Show Me” panel (top-right) to choose chart types, such as bar charts, line graphs, or maps.



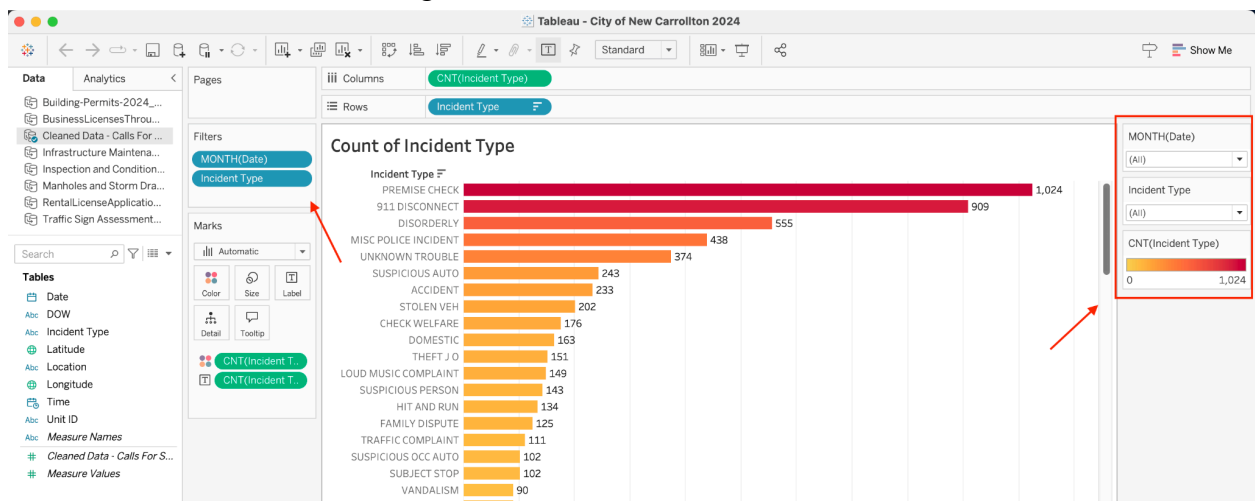
2. Build Dashboards:

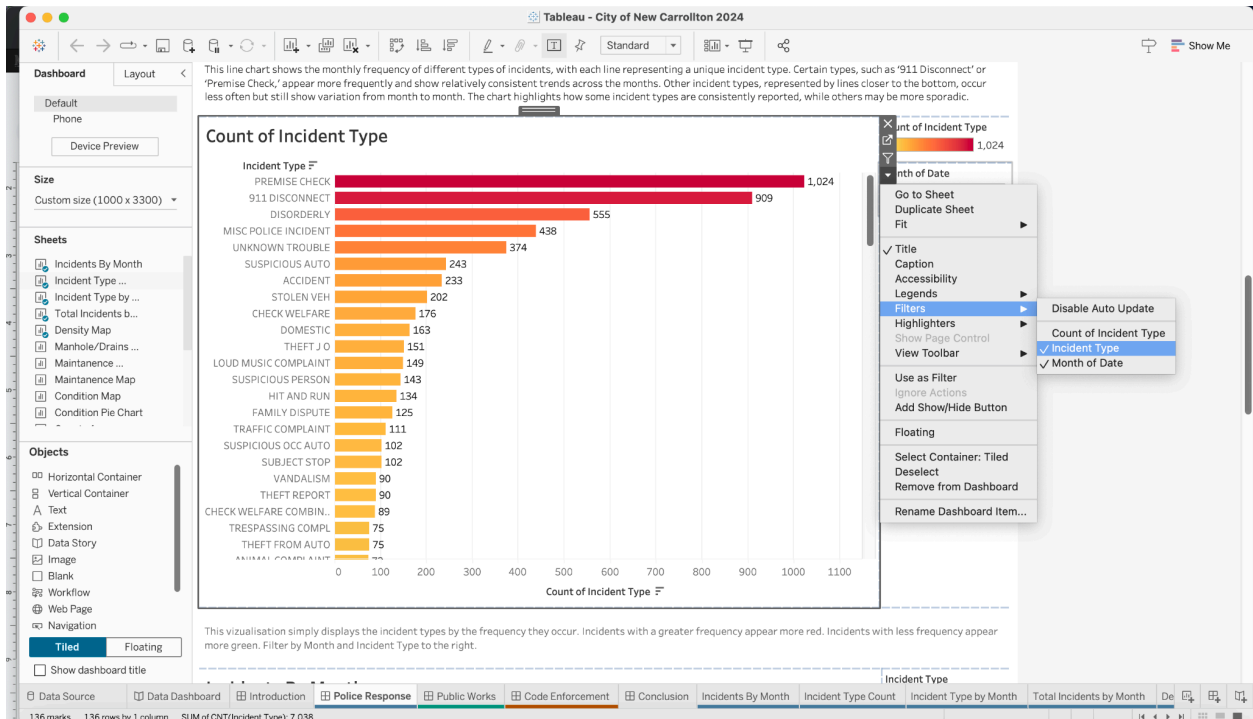
- Click on the Dashboard icon at the bottom to create a new dashboard.
- Drag your worksheets onto the dashboard canvas to arrange them.
- Use Tiled or Floating options to position charts, filters, and legends.



3. Customize and Add Interactivity:

- Add Filters:** Drag filters onto the dashboard to allow users to explore the data (e.g., by date or category).
- Add Titles and Instructions:** Use the Text Object to add titles or user instructions.
- Format charts:** Right-click on visual elements to edit fonts, colors, and borders.





4. Create Data Story:

- Click on the Story icon at the bottom to create a new Story.
- Drag your dashboard onto the story canvas.
- Click on Blank under New Story Point to create a page for each dashboard.

5. Save and Export:

- Save the project locally as a .twbx file (Packaged Workbook) or .twb file.
- If using Tableau Public, click File > Save to Tableau Public to publish it.

