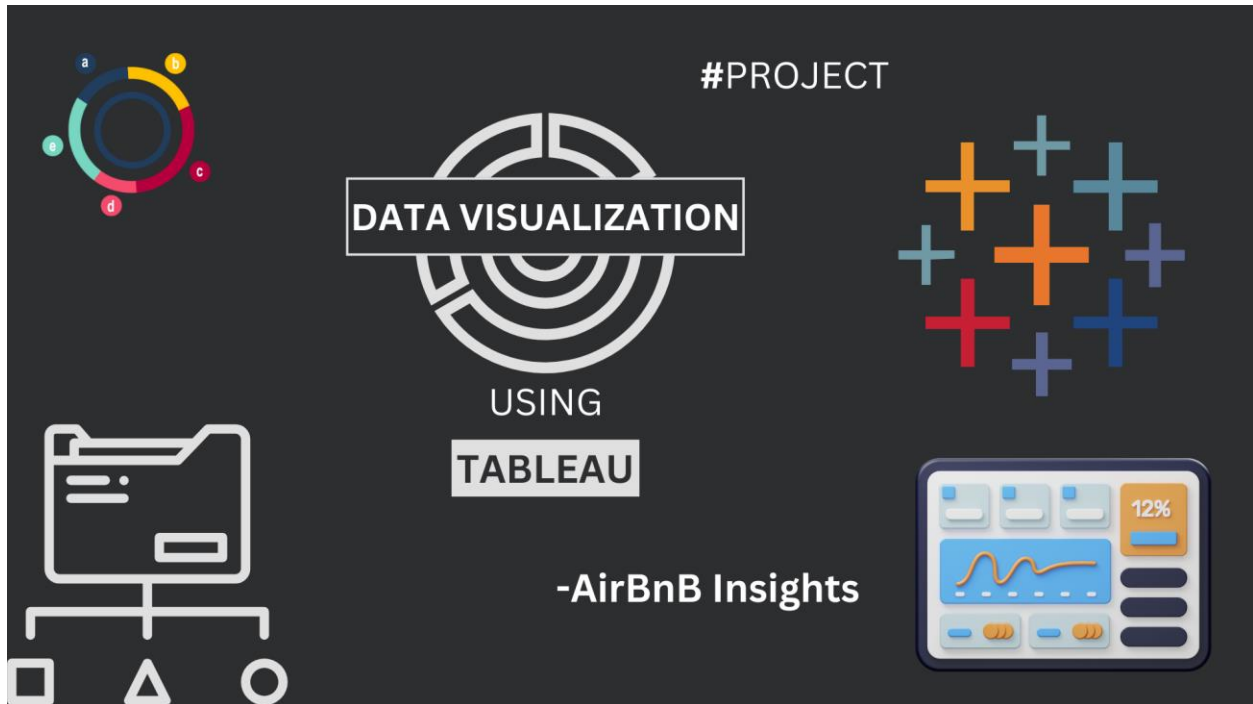


# Tableau Mastery: Data Visualization

## Project for Airbnb Insights



### Description:

In this Tableau project, I aimed to derive insights to enhance Airbnb's business using a dataset downloaded from Kaggle. Due to Tableau Public's limitations, I filtered the dataset to 10 million rows from the original 23 million. I joined multiple datasets based on common IDs and created various visualizations. These included analyzing prices by zip codes with bar charts and maps, examining revenue trends over time using line charts, exploring average prices per bedroom, and determining the total number of bedrooms. Finally, I designed a Tableau dashboard to present the findings. This project improved my skills in creating effective data visualizations, utilizing functions, filters, charts, and joins in Tableau.

**Skills:** Data Visualization, Tableau.

This Project is all about learning Tableau Data visualization. While doing this project I learned How to Create a Dashboard, Joins, Filters, and charts.

I faced some errors while doing this project I faced an error in joins like, those datasets totally have 23 million rows. I currently using a Tableau Public version. That they don't allow us to work with 23 million rows, they only allow us to work with 15 million rows. To work with datasets I filtered my datasets into 10 million, the filter process really took a lot of time, approximately 2 hours. and to solve that problem I used the internet community. Their a lot of people who are ready to solve my problems. If they don't help, It take a lot of time to complete this project.

This project's goal is to find the right insights to improve Airbnb's business. (Airbnb, as in "Air Bed and Breakfast," is a service that lets property owners rent out their spaces to travelers looking for a place to stay. Travelers can rent a space for multiple people to share, a shared space with private rooms, or the entire property for themselves.)

To start this project, I downloaded Airbnb Data set from Kaggle Website.

**Tableau Full Project.xlsx (43.5 MB)**

Table	Total Rows	Total Columns
Calendar	1048575	4
Listings	3818	92
Reviews	84849	6

**Data Explorer**  
Version 1 (43.5 MB)

Tableau Full Project.xlsx

Calendar

Listings

Reviews

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**Summary**

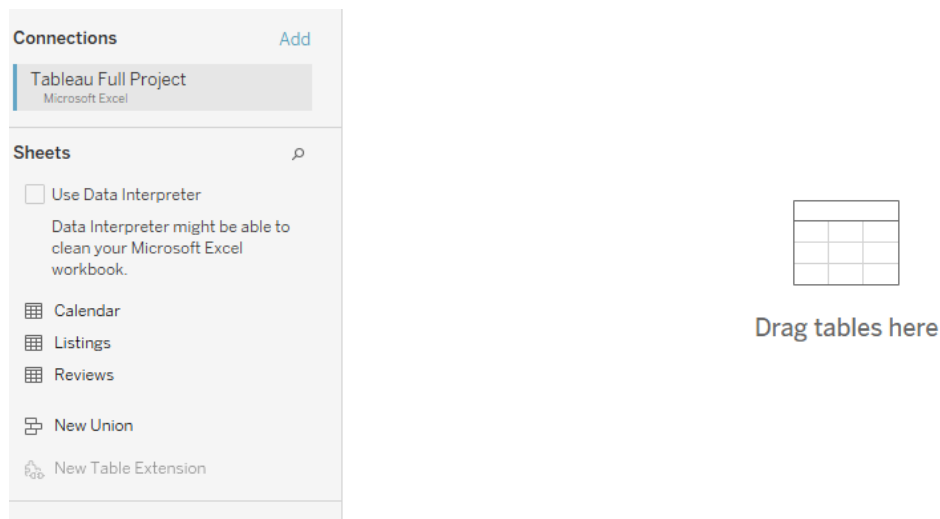
1 file

102 columns

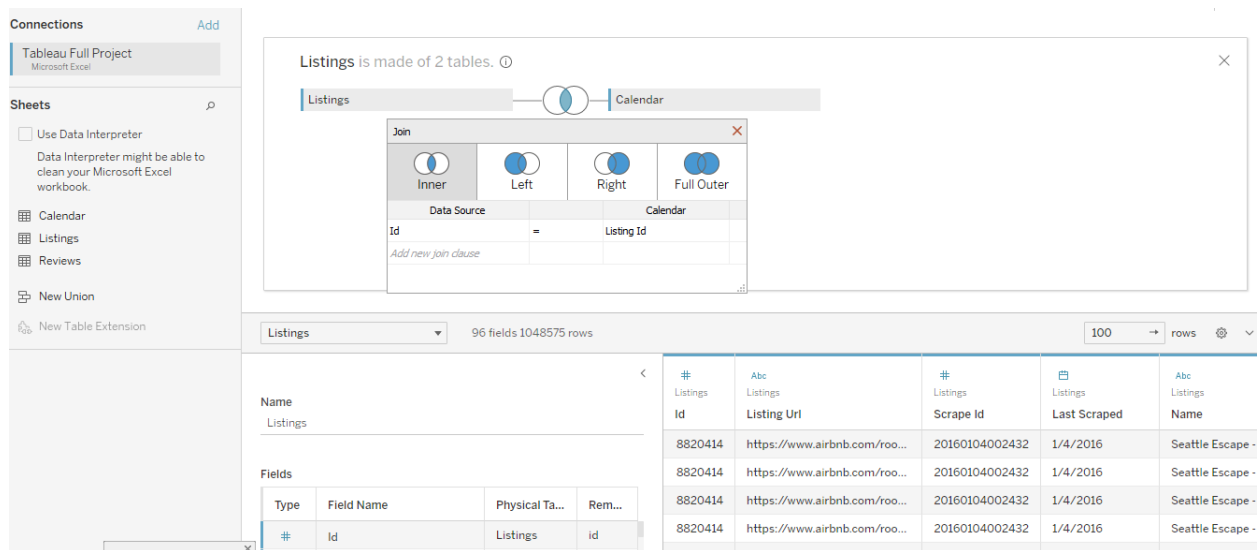
To check that file, I opened Excel and I started doing projects.

	A	B	C	D	E	F	G
1	id	listing_url	scrape_id	last_scraped	name	summary	space
2	241032	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Stylish Queen Anne Apartment		Make your self at home in
3	953595	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Bright & Airy Queen Anne Apar	Chemically sensitive? We're re	Beautiful, hypoallergenic
4	3308979	https://www.airbnb.com/room	2.01601E+13	1/4/2016	New Modern House-Amazing v	New modern house built in 201	Our house is modern, light
5	7421966	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Queen Anne Chateau		A charming apartment that sits atop Queen Anne hill, nor
6	278830	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Charming craftsman 3 bdm hou	Cozy family craftsman house in	Cozy family craftsman hou
7	5956968	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Private unit in a 1920s mansion	We're renting out a small priva	If you include a bit of you
8	1909058	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Queen Anne Private Bed and B	Enjoy a quiet stay in our comfo	Enjoy a quiet stay in our c
9	856550	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Tiny Garden cabin on Queen Ar	Our tiny cabin is private , very c	This cabin was built with
10	4948745	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Urban Charm    Downtown	'Nestled in the heart of the city	Located in the heart of th
11	2493658	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Airy + Bright Queen Anne Apar	Beautiful apartment in an extre	What's special about this
12	175576	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Private Apartment - Queen An	Queen Anne Hill is a charming	Be close to everything! Q
13	4454295	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Upper Queen Anne Craftsman	Beautifully furnished, cozy 1 b	Beautiful home in an extr
14	3883392	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Open Plan 2bdr/1bath in Quee	Spacious apt in popular Seattle	This apartment is in a qui
15	8889257	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Elegance in Historic Queen Anr	Enjoy our amazing, updated & i	Originally built in 1906, ou
16	5680462	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Stunning 6 bd in THE BEST Loca	Stunning Design&space featur	Gorgeous, LIGHT FILLED, N
17	8988178	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Lovely Queen Anne Cottage, 2	This home is full of light, art an	The Space This is a 1000 sc
18	3245876	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Park Life in Lower Queen Anne	Master bedroom suite with 1/4	**PLEASE MAKE SURE TO F
19	4933447	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Private Garden Suite, Bay View	Beautiful private entrance gard	French Country style hom
20	7735464	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Queen Anne Getaway Near Sea	The second room in our spacious	2BR / 2 Bath apartment t
21	6291829	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Grand Craftsman Home on Que	This home built in 1909. It has	This home encompasses t
22	9218403	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Queen Anne View One Bedroo	This clean and comfortable one	Kitchen has hot water tap
23	4125779	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Cozy Queen Anne Finished Bas	Relax in your own private finis	Updated daylight baseme
24	8942678	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Lovely Queen Anne home	Welcome to Seattle! Enjoy you	Centrally located spaciou
25	10106055	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Cozy Lower Level, Upper Quee	Greetings! Our home is a beau	The space we are renting
26	6362362	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Charming home on Queen Ann	Enjoy Seattle from the ideally	I step into the main living
27	3544550	https://www.airbnb.com/room	2.01601E+13	1/4/2016	VIEW-Monthly Rental Availabl	Our home is very light and full	Our home is a brick tudor,
28	9025039	https://www.airbnb.com/room	2.01601E+13	1/4/2016	Cute Bungalow-Close to Everyt	Our cozy little bungalow is the	One bedroom has a quee

Then I imported it into Tableau.

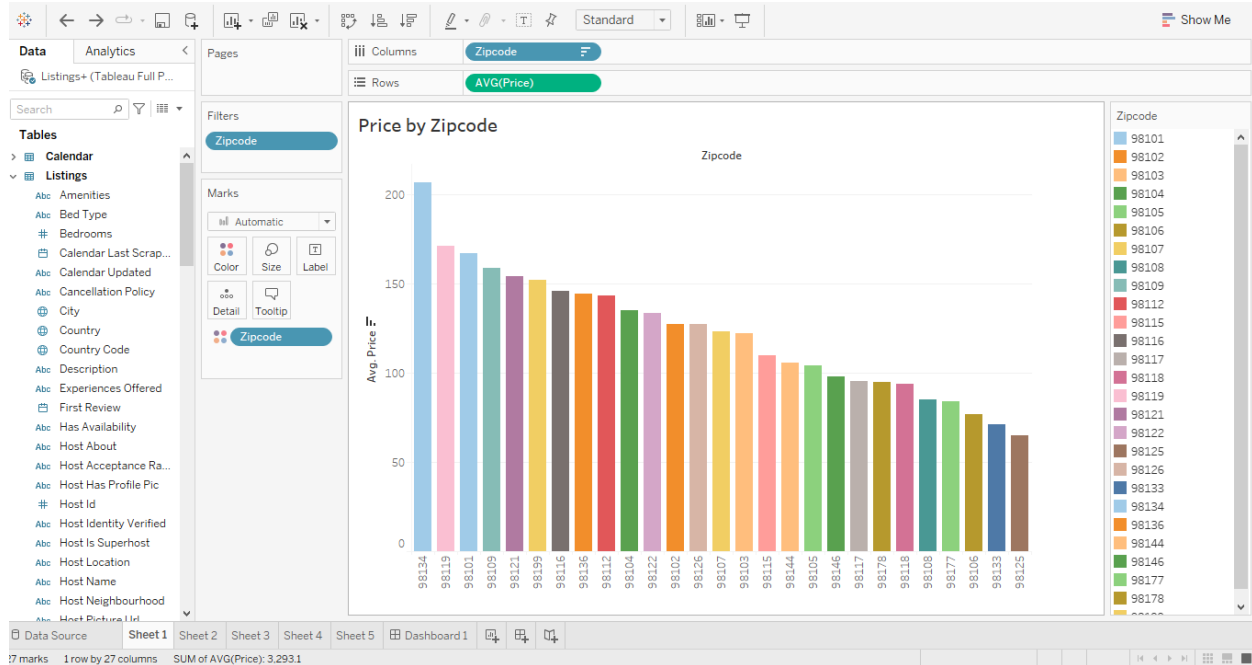


After that, I started to Join those datasets. To do that I opened Listing's dataset, then created a new window for joining multiple datasets. I joined those datasets by having a common thing (ID and Listings ID).

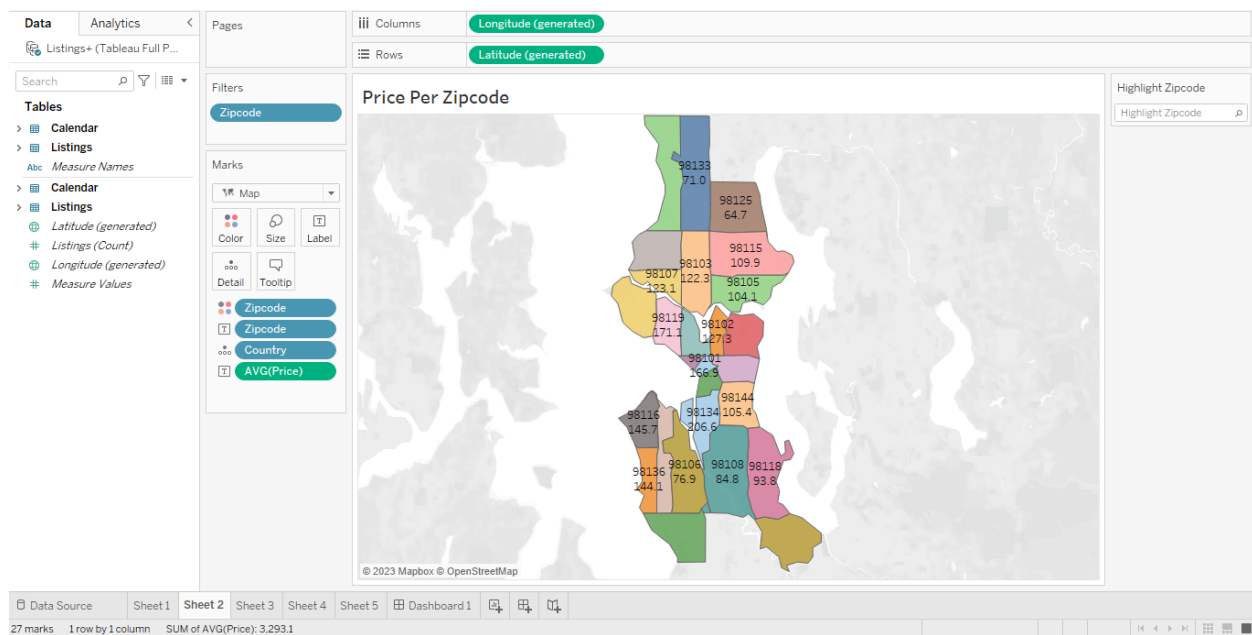


Then I created a Sheet to create charts to find insights.

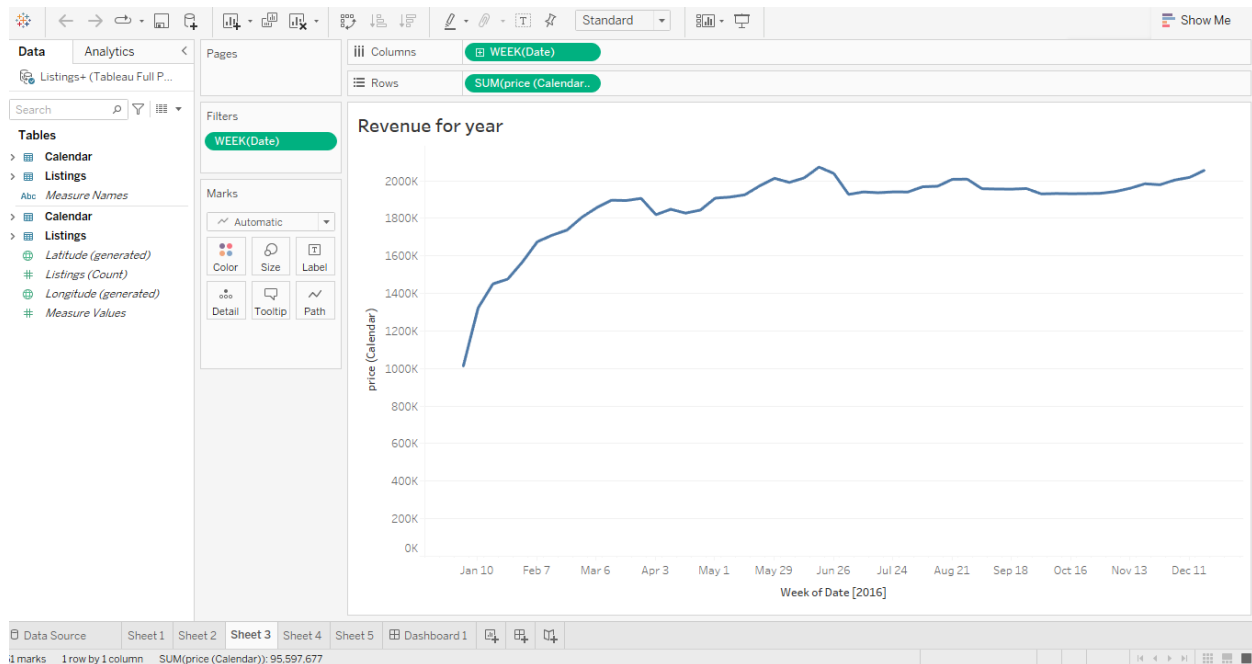
First I am going to find Prices by Zipcodes. To do that I dragged Zipcodes from the listing table to columns and I dragged prices into rows. Then I added color to the bars, by adding color and labels we can easily understand the charts.



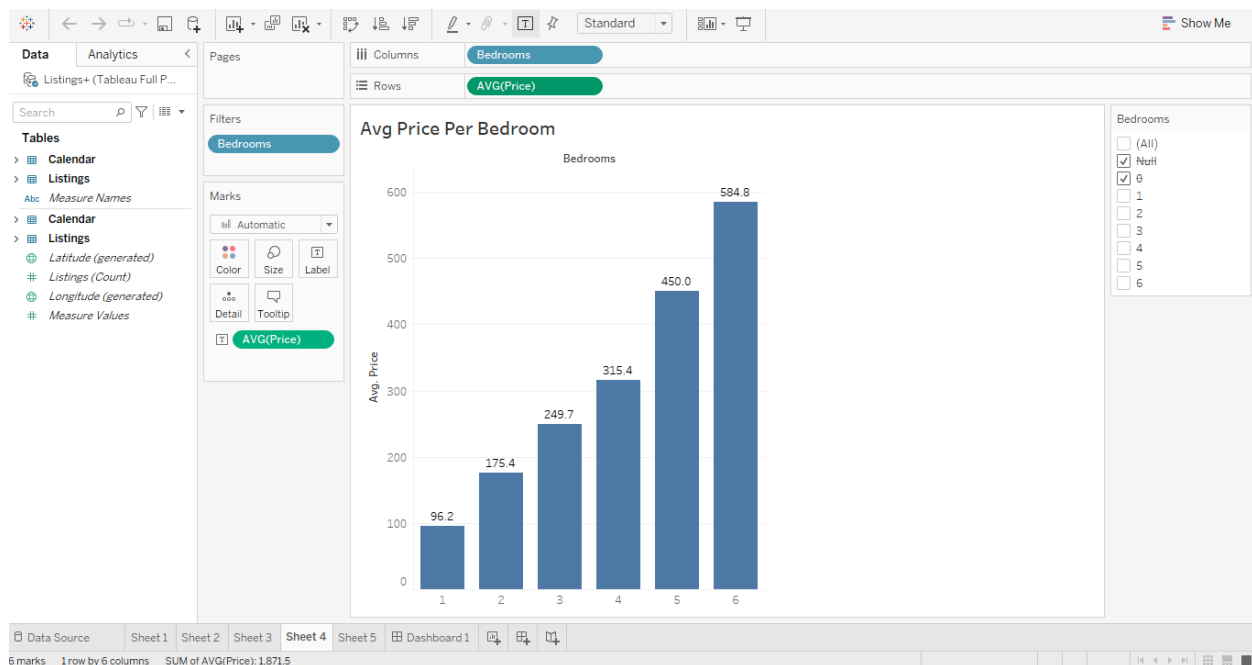
Next, To understand this more easily I added a Map chart. By adding a map people can understand those zip code places wise.



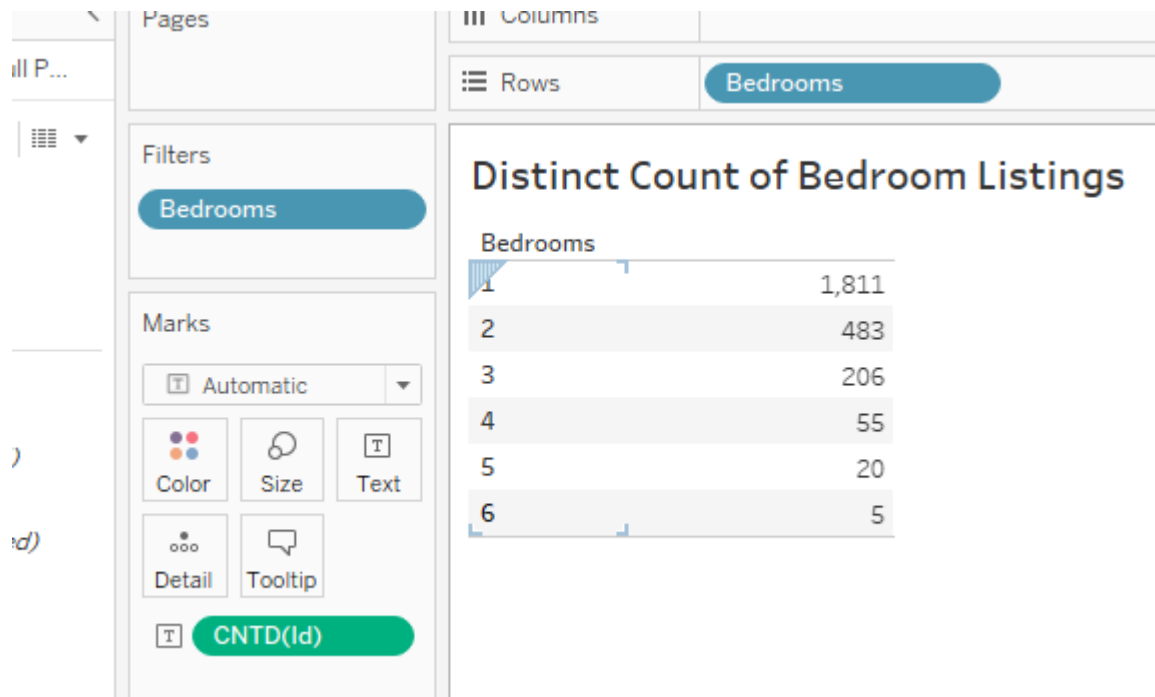
And Next, I created a third sheet to find Revenue for the year. To find that I dragged the date into the column filtered week-wise, and I added the price into Rows. This time I inserted a Line chart.



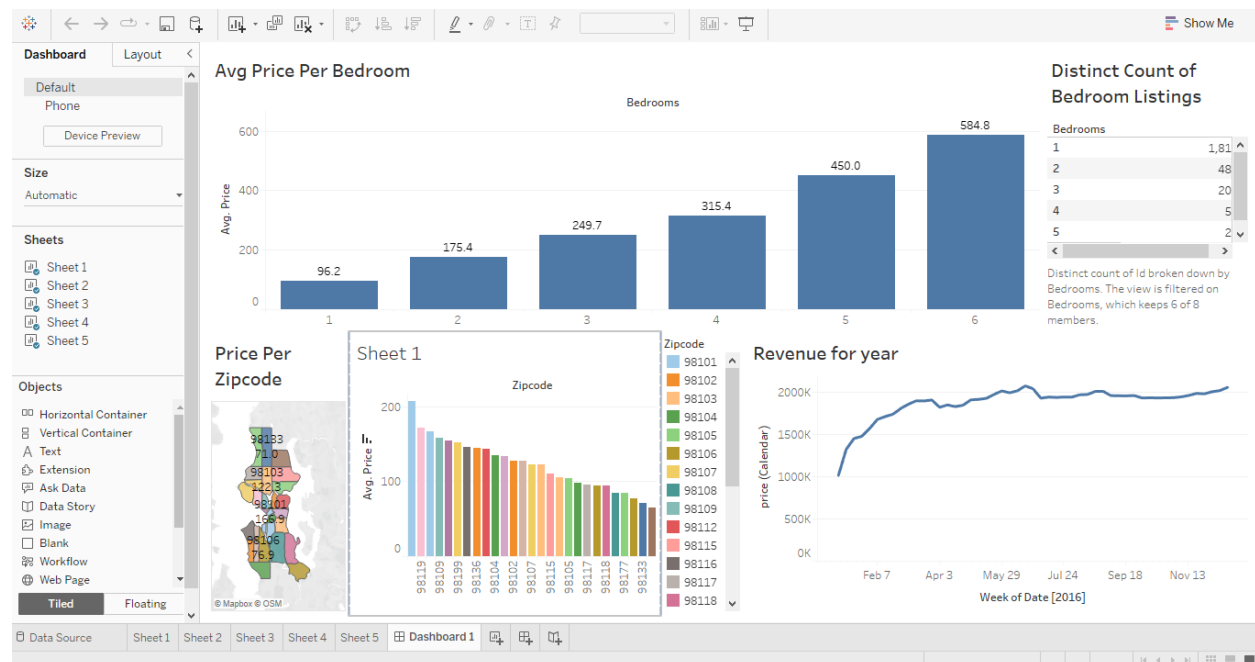
Then I created a Fourth sheet to find Avg price per bedroom. To do that I added a Bedroom to the Tableau column and next, I measured price by average then I added to the rows.



In the last sheet, I created to find how many bedrooms they totally have.



Next, I started to create a dashboard to showcase my results.



By creating a dashboard for data visualization the stakeholders can easily understand and it leads to take data-driven decision-making. Data visualization is the graphical representation of information and data. By using visual elements like charts, graphs, and maps, data visualization tools provide an accessible way to see and understand trends, outliers, and patterns in data.

In this project, I learned how to use Tableau to create wonderful dashboards and functions, filters, charts, and Joins. This experience really helped to increase my skills.

