Home Purchase Decision Analysis

Florida, New York, North Carolina

Baruch COLLEGE | CUNY

Group 2

Team Members:

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The problem

Most people want a home, but don't even know where to begin

What the homebuyer should focus on

- Location
- Price and budget

Business Pitch

Help clients find the home they desire

Objective

Help people make an informed decision about home buying

Personas

- Homebuyers
- Dashboard Developers
- IT Project Manager
- Data Warehouse Specialist

Requirements

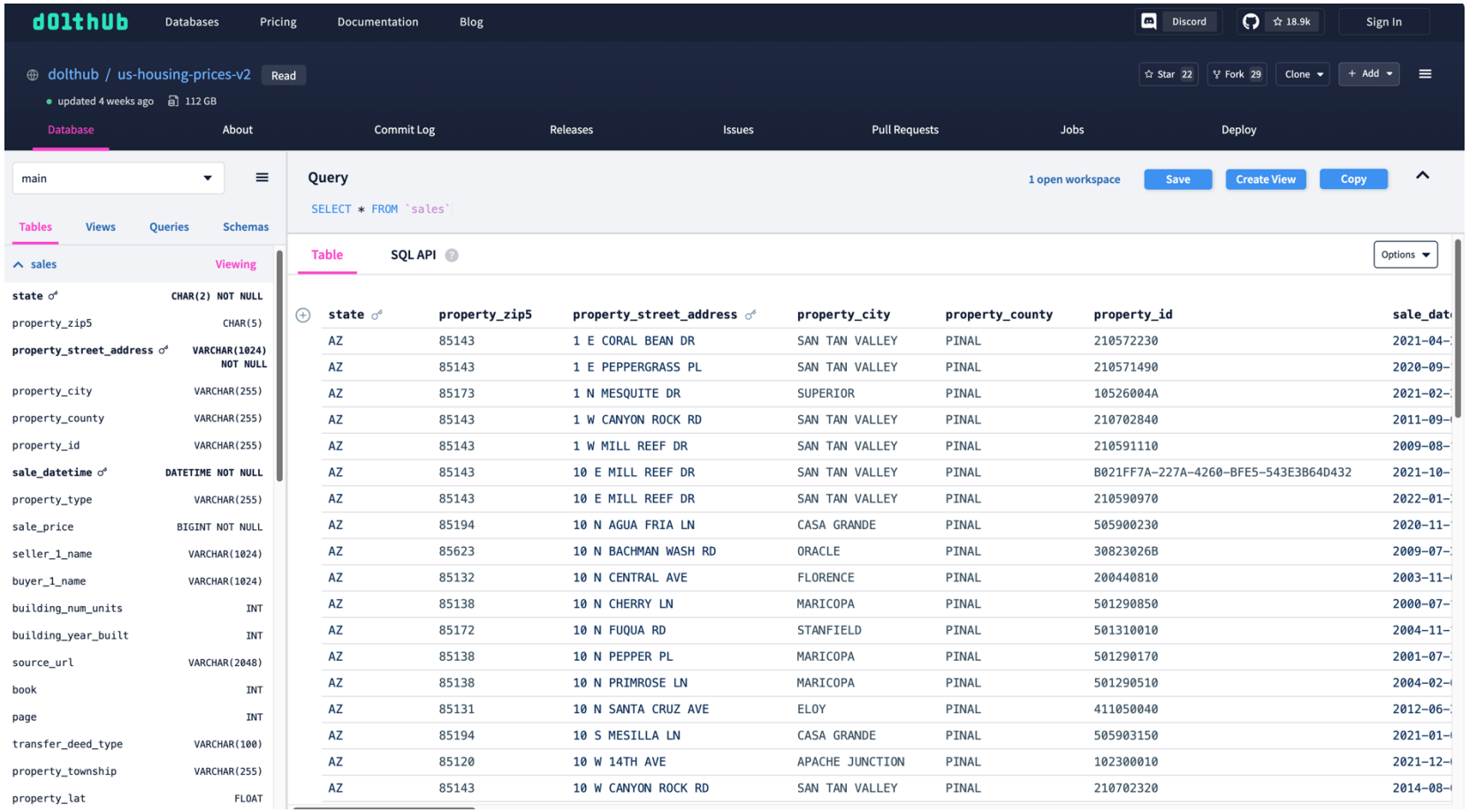
- We will find the average price in each county and zip code
- In New York, North Carolina, and Florida

What makes a good home purchase?

- Data accuracy
- Location
- Price transparency

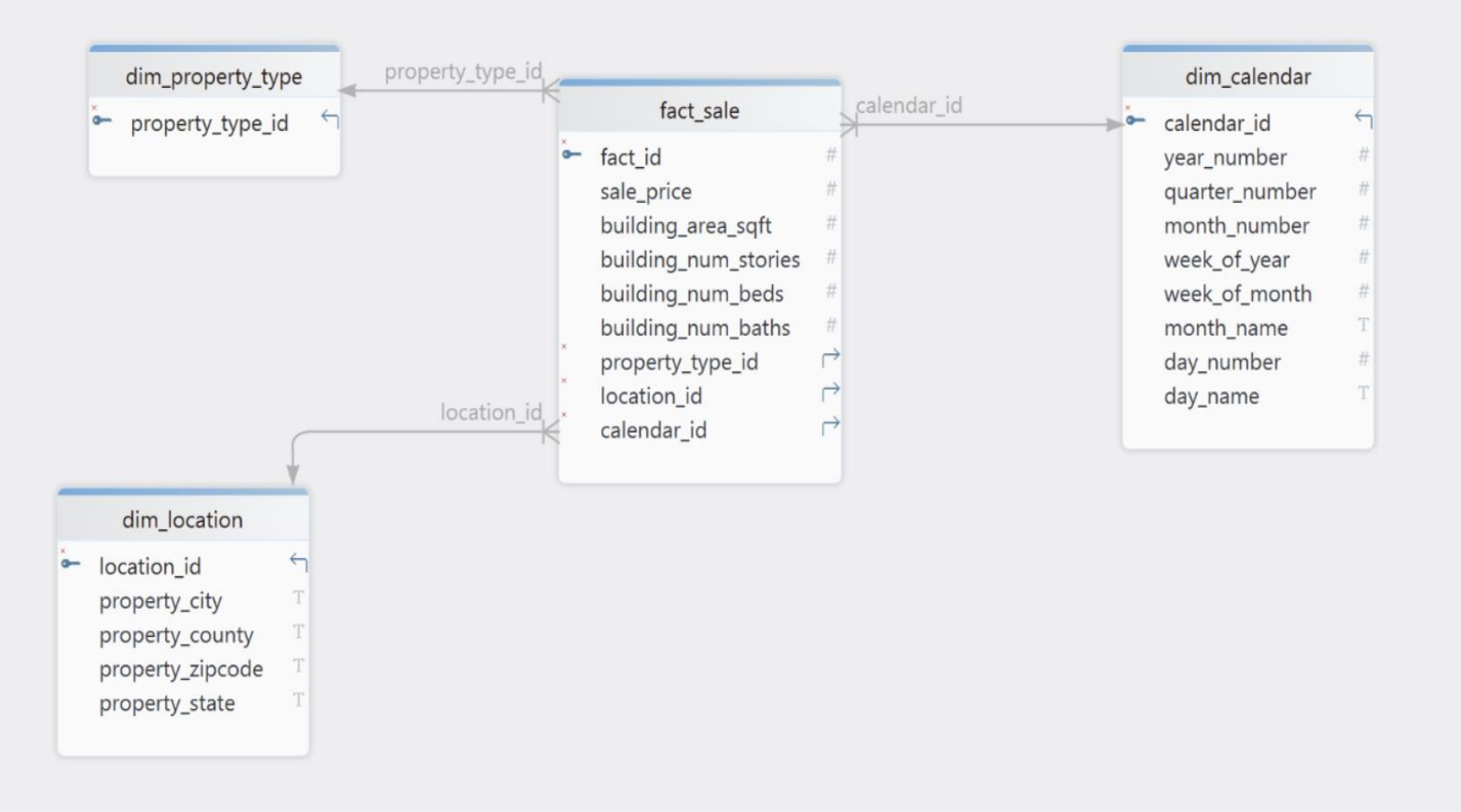
What is the process behind?

- Data Sourcing



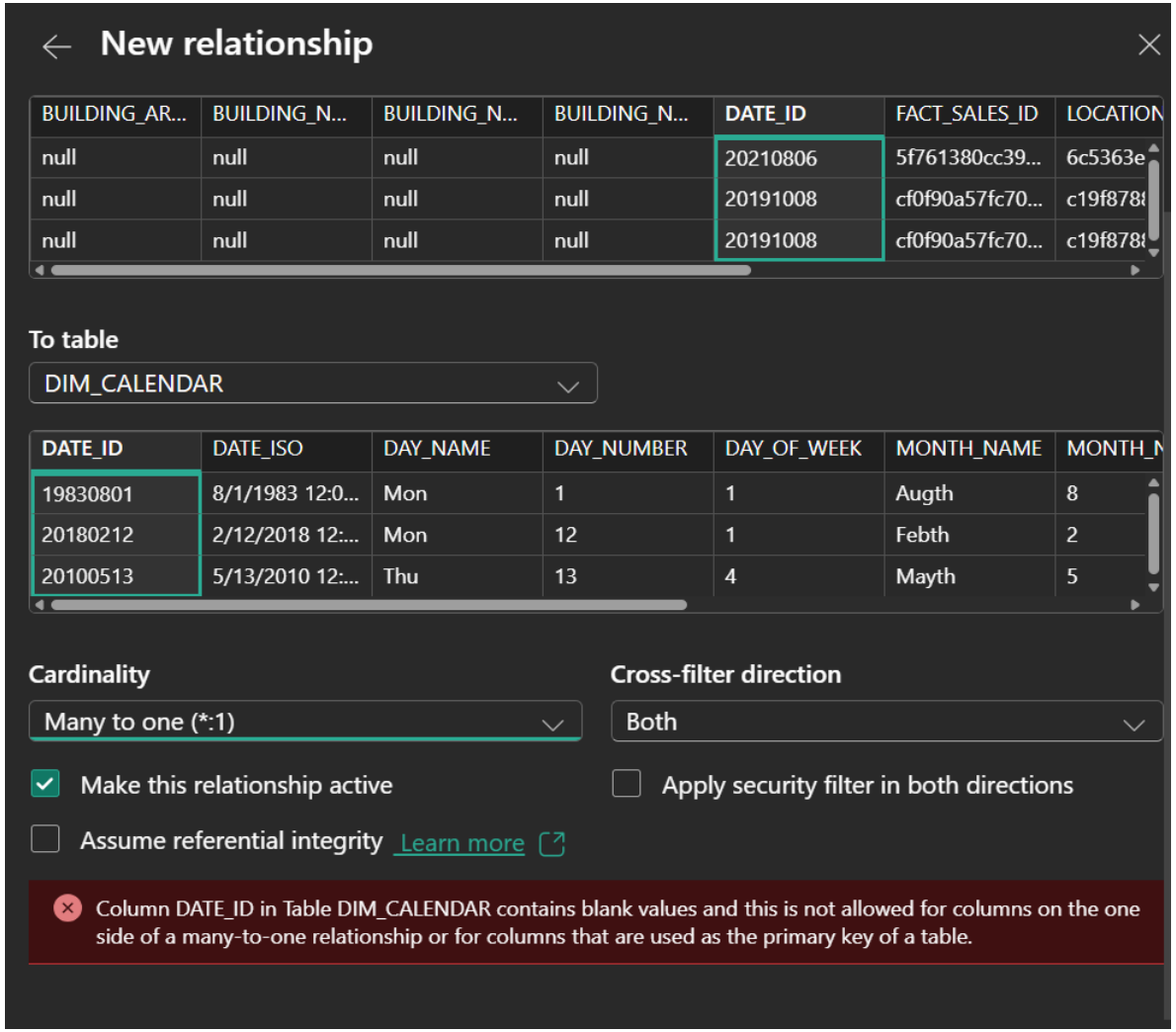
What is the process behind?

- Data Modeling
  - Azure
  - Snowflake
  - dbt



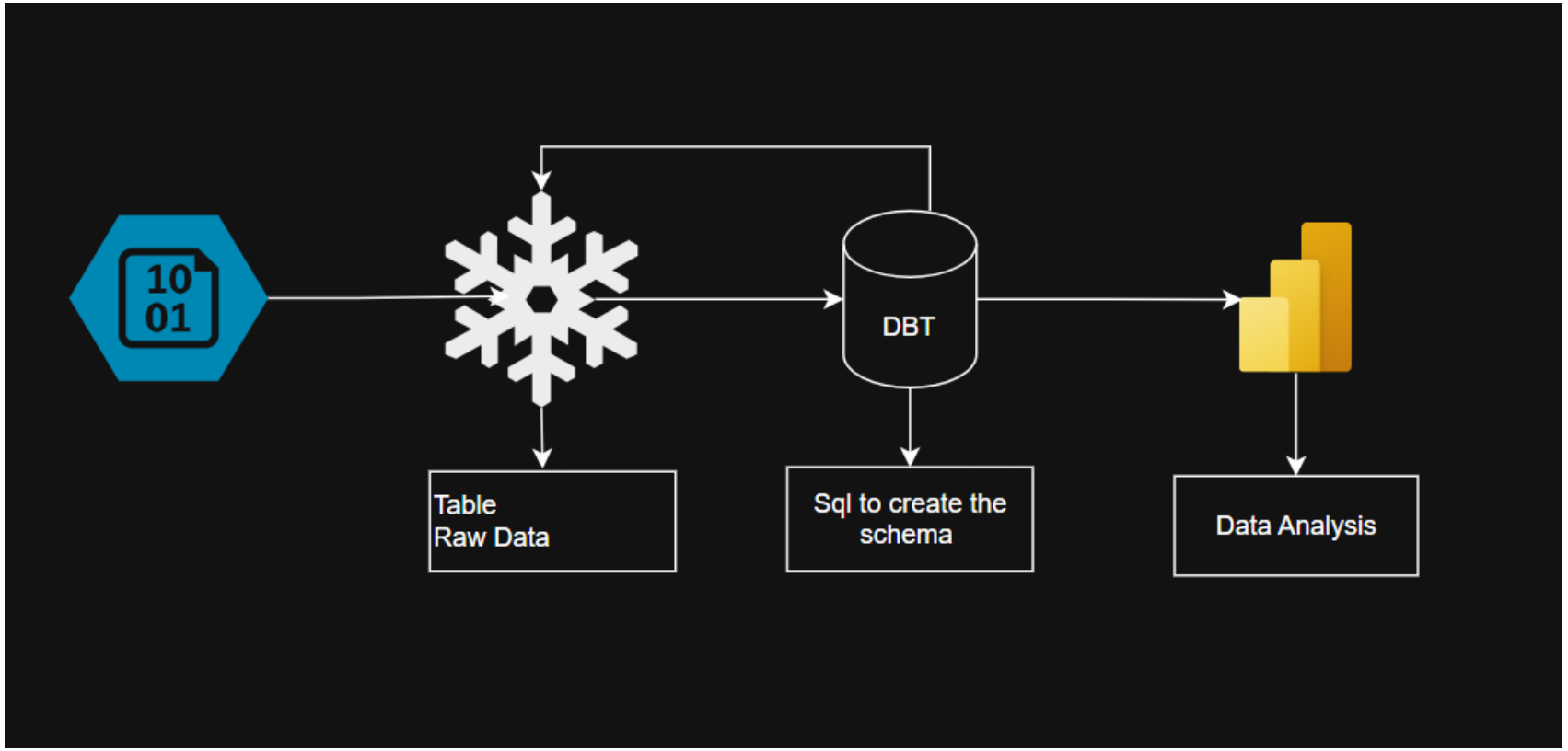
What is the process behind?

- Data cleaning

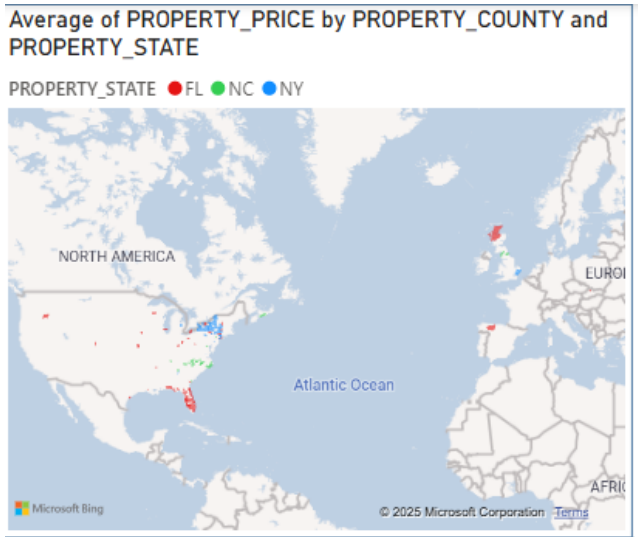


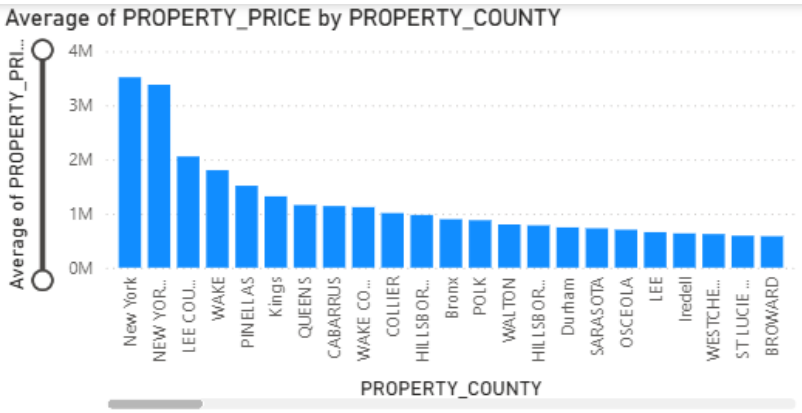
What is the process behind?

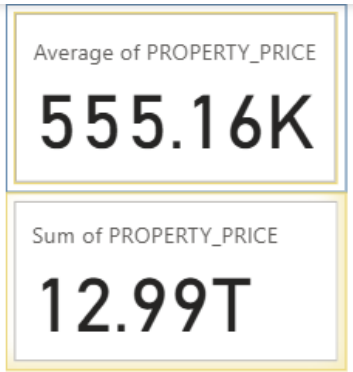
- Technical
- Visualization (Power BI)

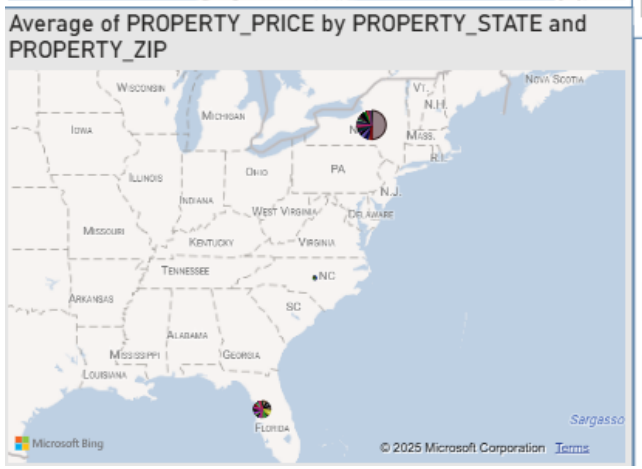


The Visualization









YEAR_NUMBER	PROPERTY_ZIP	PROPERTY_COUNTY	Average of PROPERTY_PRICE	Sum of PROPE
2022			1,017,630.29	3,434,5
2022		ALBANY	286,051.19	965,7
2022		ALLEGANY	50,006.57	24,8
2022		BROOME	164,031.39	314,4
2022		BUNCOMBE	384,673.08	50,0
2022		CATTARAUGUS	86,446.51	107,0
2022		CAYUGA	123,056.59	141,3
2022		CHAUTAUQUA	118,346.66	21,3
2022		CHEMUNG	1,000.00	
Total			**555,162.05**	**12,985,736,2**

New York

PROPERTY_COUNTY

Search

ALBANY | ALLEGANY | Bronx

Average of PROPERTY_PRICE

750.97K

Sum of PROPERTY_PRICE

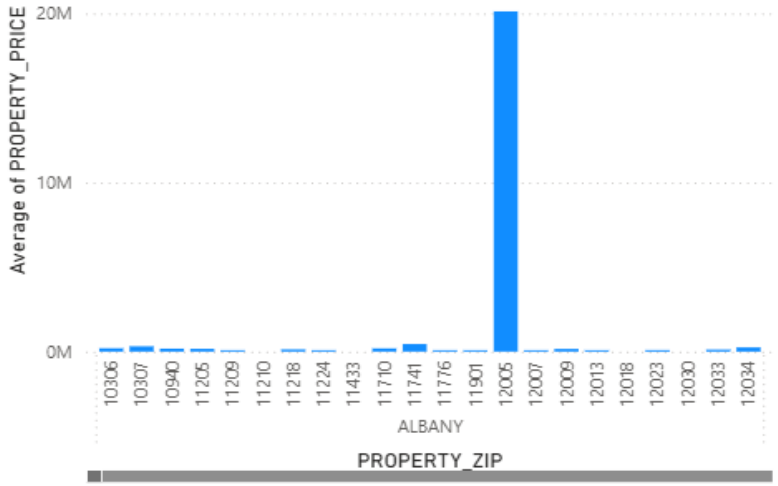
4.54T

PROPERTY_ZIP	PROPERTY_COUNTY	Average of PROPERTY_PRICE	YEAR_NUMBER
99664	STEUBEN	76,300.00	2020
97501	SUFFOLK	240,000.00	2019
971	SUFFOLK	1,400,000.00	2020
96816	ERIE	42,350.00	2013
94019	WESTCHESTER	33,000.00	2019
94019	WESTCHESTER	26,000.00	2021
9390	SUFFOLK	1.00	2016
93021	SULLIVAN	100,126.00	2015
92868	ERIE	240,000.00	2017
Total		**861,789.45**	

PROPERTY_COUNTY and PROPERTY_ZIP

Average of PROPERTY_PRICE by PROPERTY_COUNTY

Average of PROPERTY_PRICE by PROPERTY_COUNTY and PROPERTY_ZIP



North Carolina

PROPERTY_COUNTY

Search

ALEXANDER | BUNCOMBE | **Burke**

Average of PROPERTY_PRICE

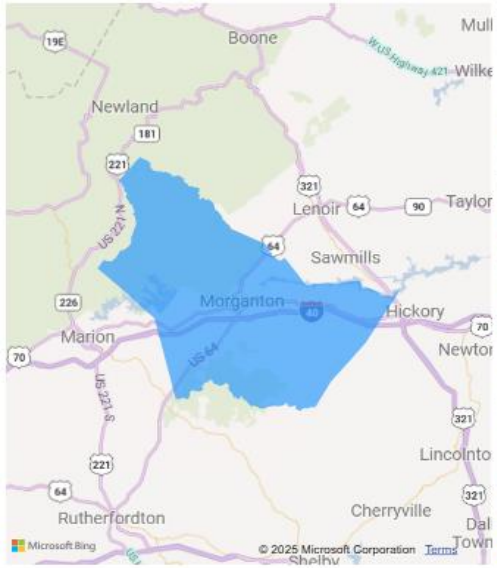
26.54K

Sum of PROPERTY_PRICE

1.47bn

PROPERTY_ZIP	PROPERTY_COUNTY	Average of PROPERTY_PRICE	YEAR_NUMBER
28761	Burke	166,400.00	2002
28761	Burke	57,083.33	2003
28761	Burke	168,854.17	2004
28761	Burke	798,220.00	2005
28761	Burke	189,779.87	2006
28761	Burke	386,269.23	2007
28761	Burke	238,026.32	2008
28761	Burke	88,539.77	2009
28761	Burke	106,074.35	2010
Total		**28,276.19**	

PROPERTY_COUNTY and PROPERTY_ZIP

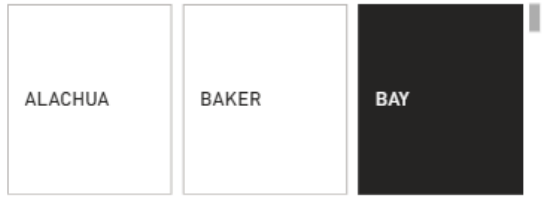


Average of PROPERTY_PRICE by PROPERTY_COUNTY

Average of PROPERTY_PRICE by PROPERTY_COUNTY and PROPERTY_ZIP

Florida

PROPERTY_COUNTY



Average of PROPERTY_PRICE

340.62K

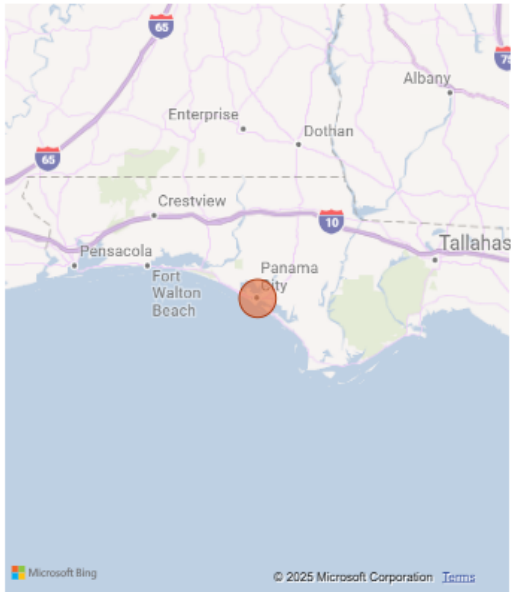
Sum of PROPERTY_PRICE

8.87bn

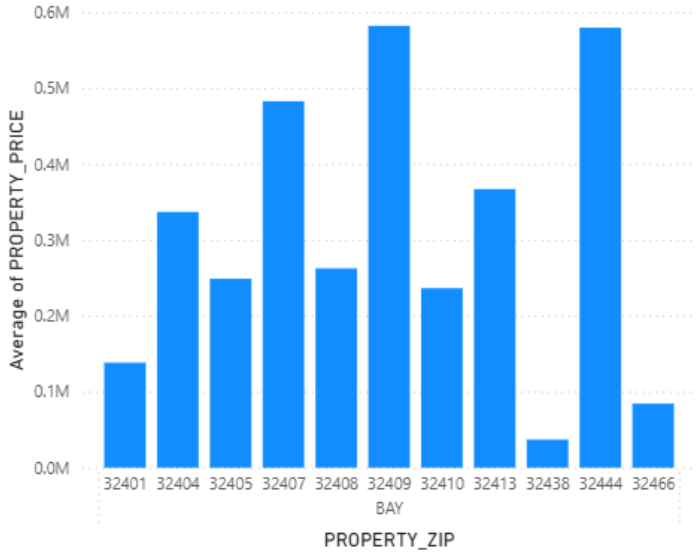
PROPERTY_ZIP	PROPERTY_COUNTY	Average of PROPERTY_PRICE	YEAR_NUMBER
32466	BAY	42,945.07	2020
32466	BAY	76,020.16	2021
32466	BAY	171,115.22	2022
32444	BAY	534,472.19	2020
32444	BAY	308,284.77	2021
32444	BAY	1,197,273.18	2022
32438	BAY	32,748.55	2020
32438	BAY	29,610.28	2021
32438	BAY	59,076.09	2022
Total		**340,617.76**	

PROPERTY_COUNTY and PROPERTY_ZIP

Average of PROPERTY_PRICE by PROPERTY_COUNTY



Average of PROPERTY_PRICE by PROPERTY_COUNTY and PROPERTY_ZIP



Results

- **New York**
  - Highest Average: New York **$3.52M**
  - Lowest Average: St Lawrence **$58.16**
- **North Carolina**
  - Highest Average: Wake $**1.80M**
  - Lowest Average: Lee **$2.16**
- **Florida**
  - Highest Average: Lee County **$2.05M**
  - Lowest Average: Bradford **$50.96K**

Conclusion

- Make an informed, data-driven decision.

Future Work

- Other considerations that could be examined while making a decision regarding buying a property are the crime rate, school ranking, public transportation, and groceries suppliers.

Members Contribution

Syed Shah: The leader and has been in charge of keeping us up to date with the analysis.

Ena Sula: In charge of dimensional modeling and visualization.

Braily Noesi: In charge of storing the data in temporary storage, and code process.

Thank You!

{Have any question? }