Capstone: New York City Real Estate

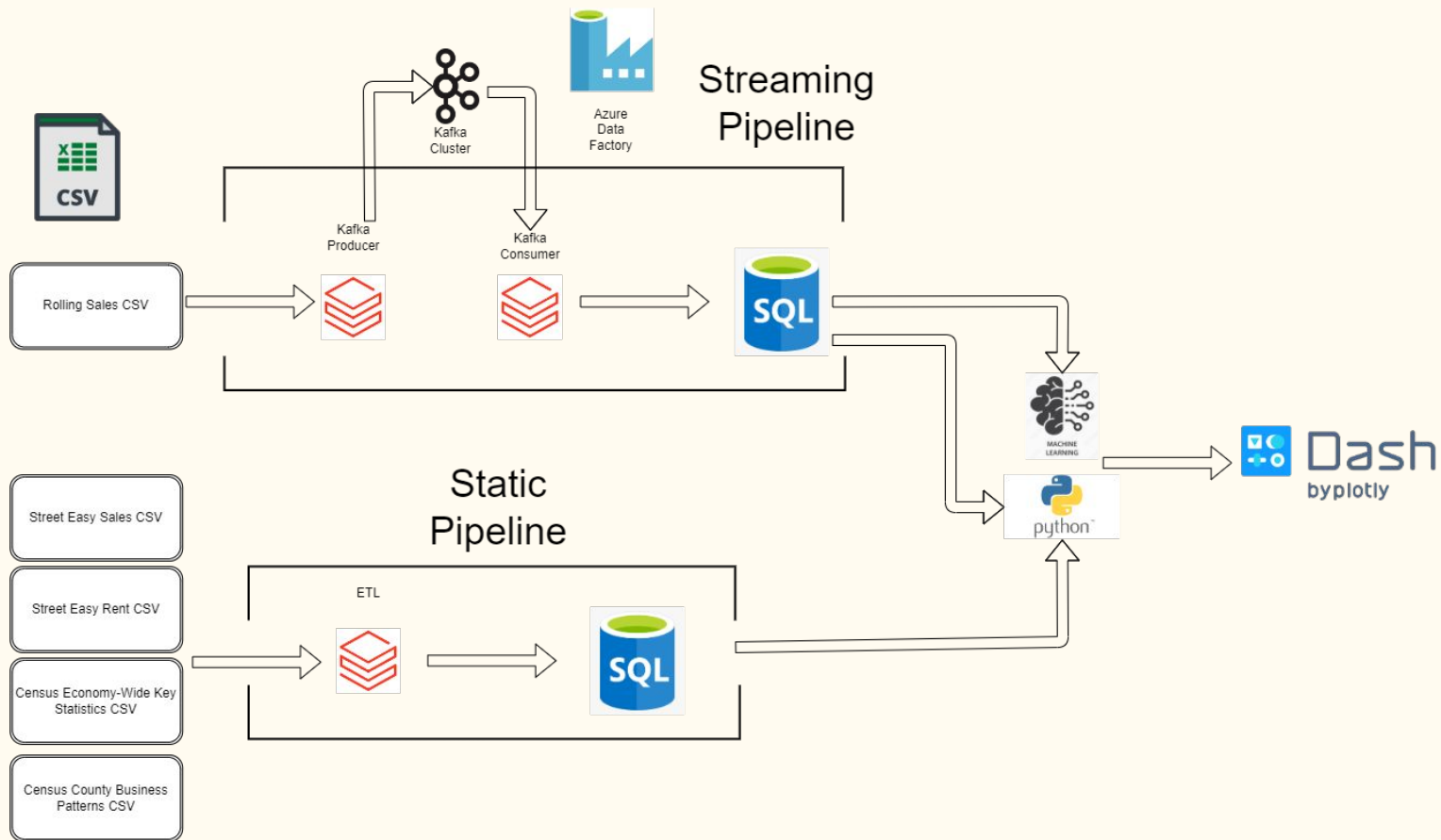Anthony Rondos, Erick Sanmartin, Nate Williamson, Peter Morris

Project Goals

- Perform preliminary research to better understand the past and present realities of the New York City housing market
- Seek out relevant data and create detailed visualizations with analysis
- Use data to construct a machine learning model that predicts housing prices given property information
- Theorize possible solutions based on findings to alleviate the harsh New York housing costs
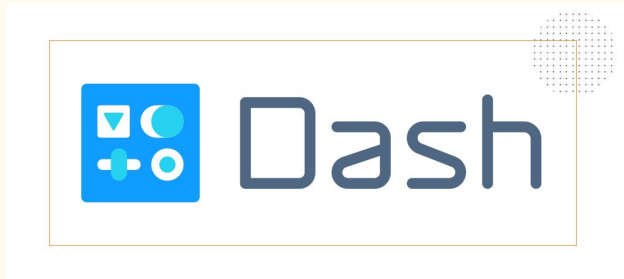
Initial Questions

1. How has public policy influenced real estate prices?

2. Which neighborhoods' median rent increased the most for each borough in the last 12 years?

3. How do sales in the past 12 months compare with one another by both zip code and borough?

4. How long until renting costs overtakes owning costs?

5. Can we predict property prices based on property features and location?

Data Platform

Streaming Pipeline

Kafka Cluster

Azure Data Factory

Kafka Producer

Kafka Consumer

CSV

Rolling Sales CSV

SQL

MACHINE LEARNING

Dash
by plotly

python

Static Pipeline

Street Easy Sales CSV

Street Easy Rent CSV

Census Economy-Wide Key Statistics CSV

Census County Business Patterns CSV

ETL

SQL

Dashboard Visualizations

We now turn to our [dashboard](#) in answering our questions.

Recommendations

- Rent Guidelines Board rent stabilization

- Question landlords of certain neighborhoods

- Inclusionary Zoning

Thank you for listening!

Questions?

Please contact us if you would like to discuss further.

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