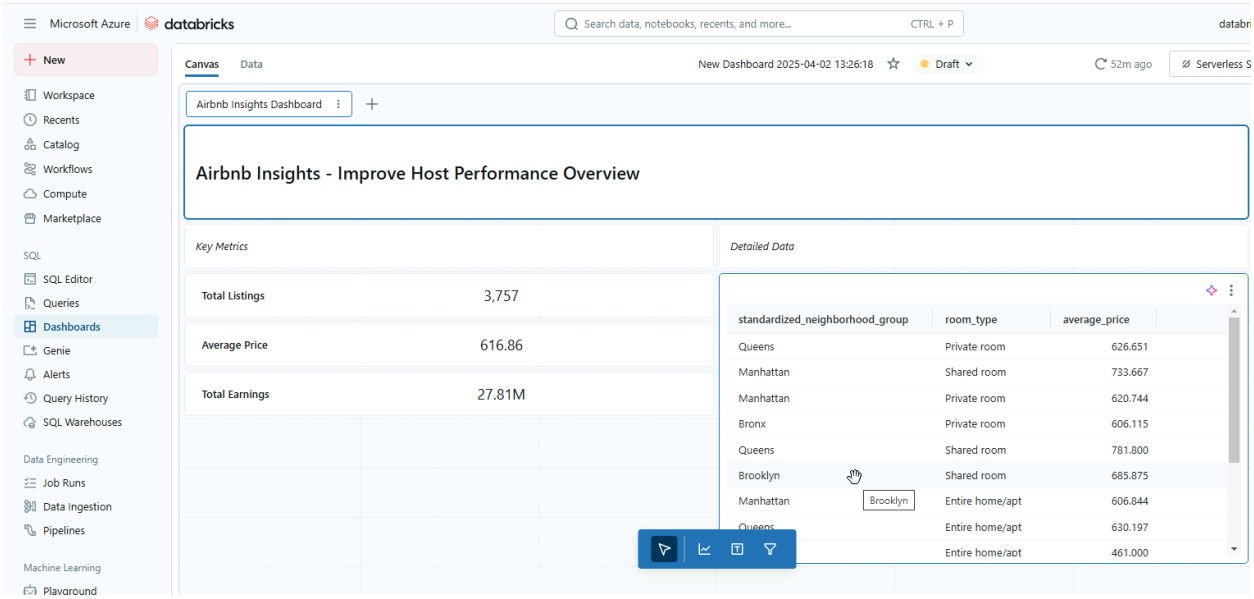
Analyzing Airbnb Data for New York City

This Databricks project is a case study aiming to provide actionable strategies to gauge demand and improve host performance with data-driven precision. It is based in rental data listed in an Airbnb dataset for New York between 2003 and 2022.

It involved exploring and cleaning the Airbnb dataset, and next building visualizations and dashboards in the platform.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New Dashboard 2025-04-02 13:26:18
Draft
52m ago
Airbnb Insights Dashboard
Airbnb Insights - Improve Host Performance Overview
Key Metrics
Total Listings
3,757
Average Price
616.86
Total Earnings
27.81M
Detailed Data
standardized_neighborhood_group
room_type
average_price
Queens
Private room
626.651
Manhattan
Shared room
733.667
Manhattan
Private room
620.744
Bronx
Private room
606.115
Queens
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781.800
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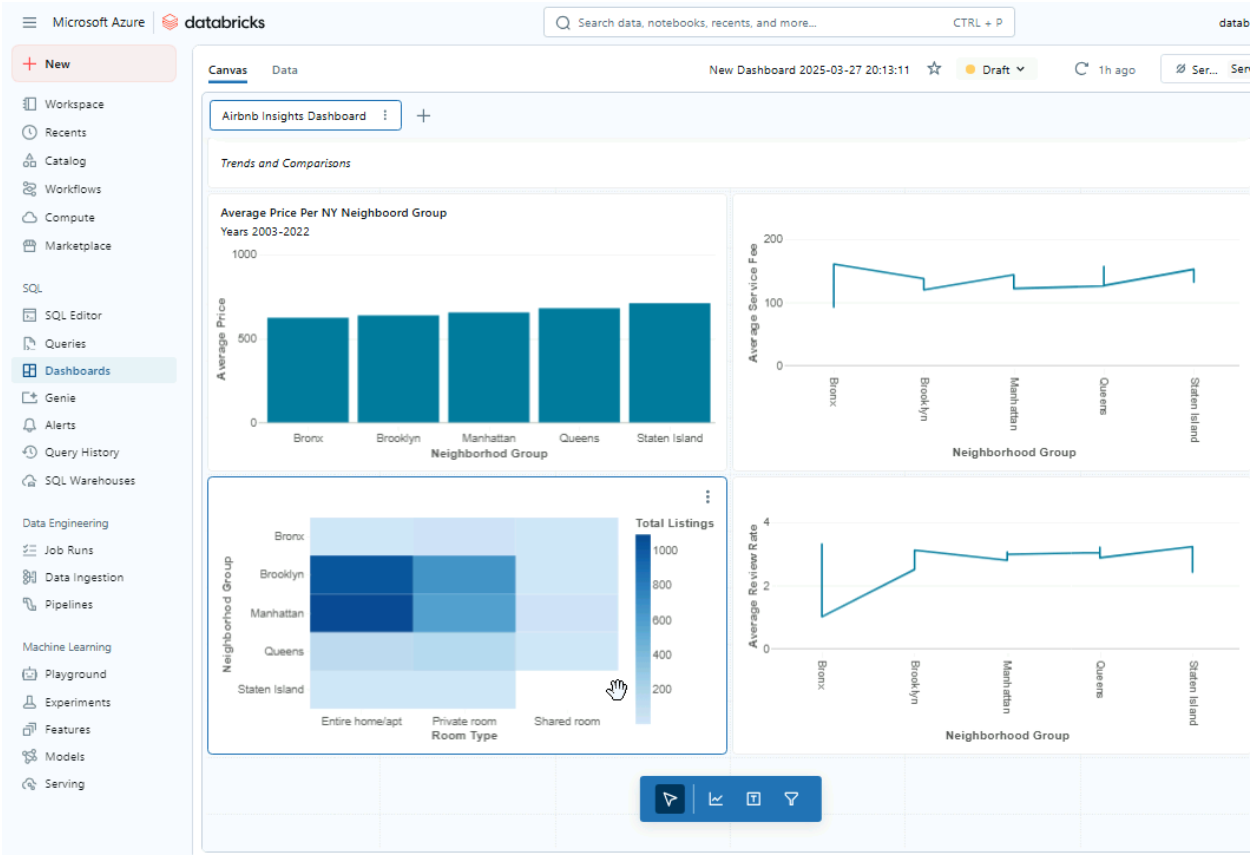
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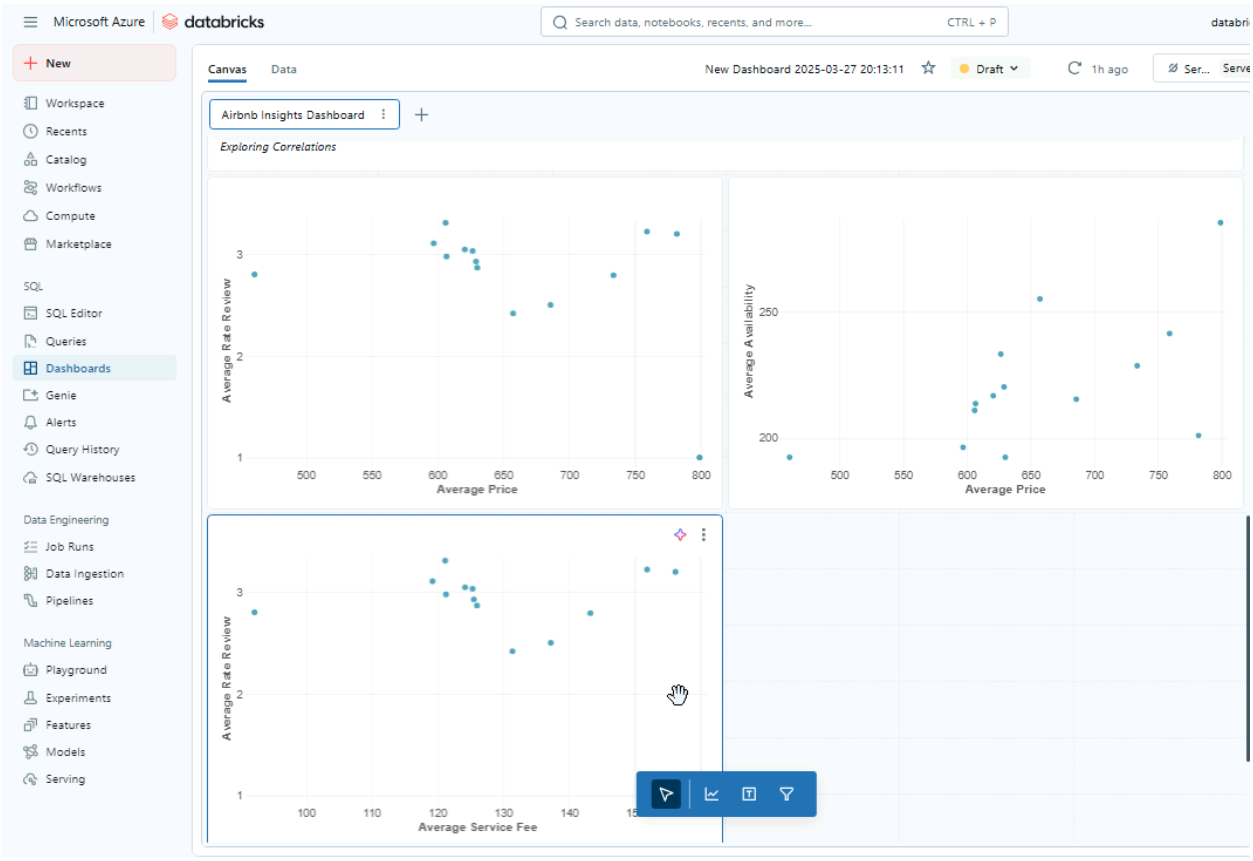
New Dashboard 2025-03-27 20:13:11
Draft
1h ago
Airbnb Insights Dashboard
Trends and Comparisons
Average Price Per NY Neighboord Group
Years 2003-2022
Average Price
Neighborhod Group
Bronx
Brooklyn
Manhattan
Queens
Staten Island
Average Service Fee
Neighborhood Group
Neighborhood Group
Total Listings
Room Type
Entire home/apt
Private room
Shared room
Average Review Rate
Neighborhood Group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Data
New Dashboard 2025-03-27 20:13:11
Draft
1h ago
Airbnb Insights Dashboard
Exploring Correlations
Average Rate Review
Average Price
Average Availability
Average Price
Average Rate Review
Average Service Fee

Dashboard Analysis Summary

- The heatmap shows Manhattan had the highest total availability for ‘Entire home/Apt’ and the line chart shows that neighborhood had the lowest service average fee. Brooklyn had highest total availability for ‘Private room’.

Actionable insights

- Brooklin and Manhattan lead in revenue generation and increasing the number of listings in these high-demand areas could further capitalize on their potential.

- Listings with higher services fees tend to have higher review rates, indicating higher service fees may positively impact customer satisfaction.

  This can be used to guide pricing and fee strategies based on information shown in the scatter plots (Price vs Review Rate, Price vs Availability, and Review Rate vs Service Fee)