

PRODUCT

Boston Airbnb Data Analysis

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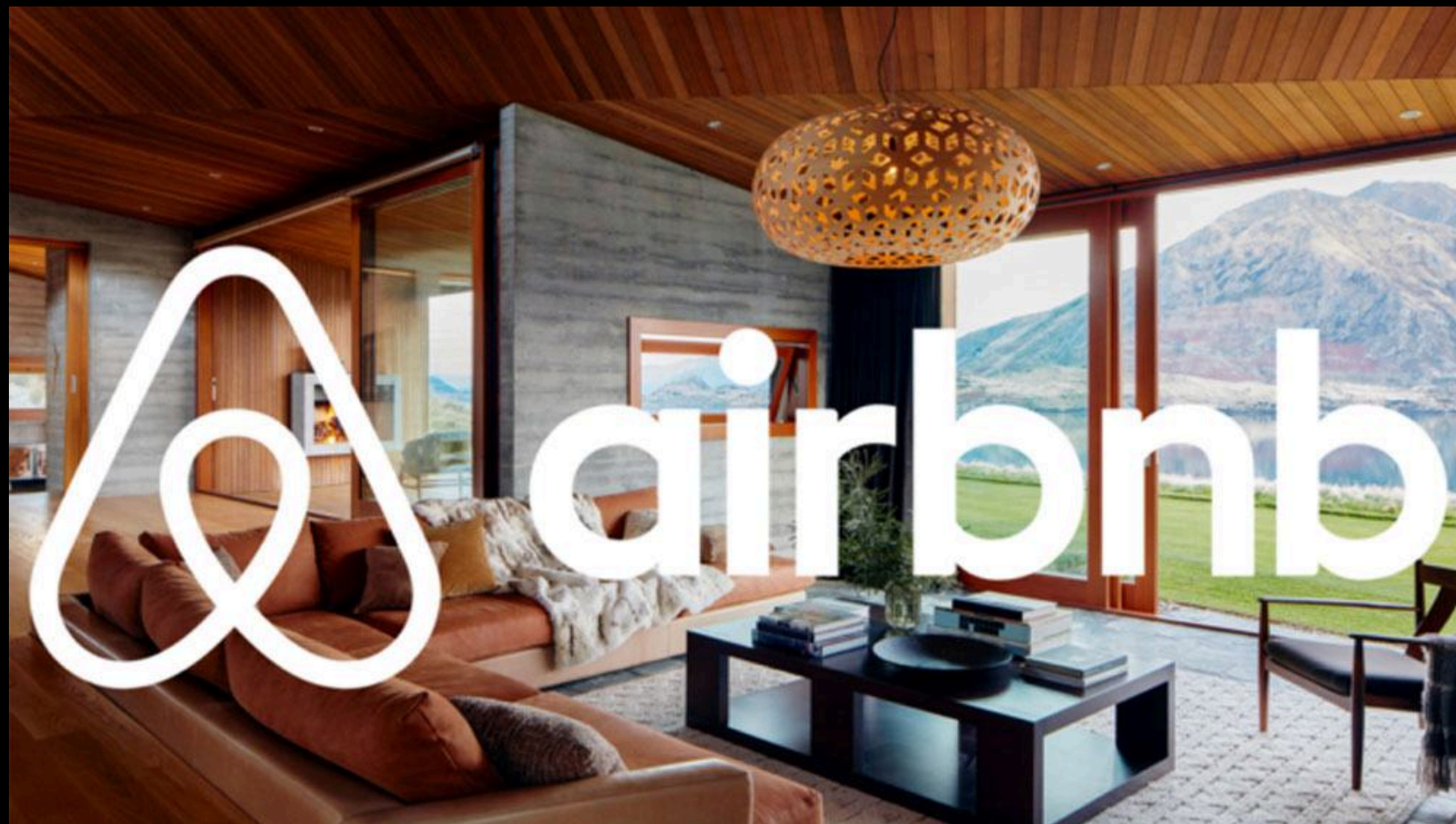
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GOALS

Optimizing Promotion and Pricing Strategy Through Supply and Demand Insights

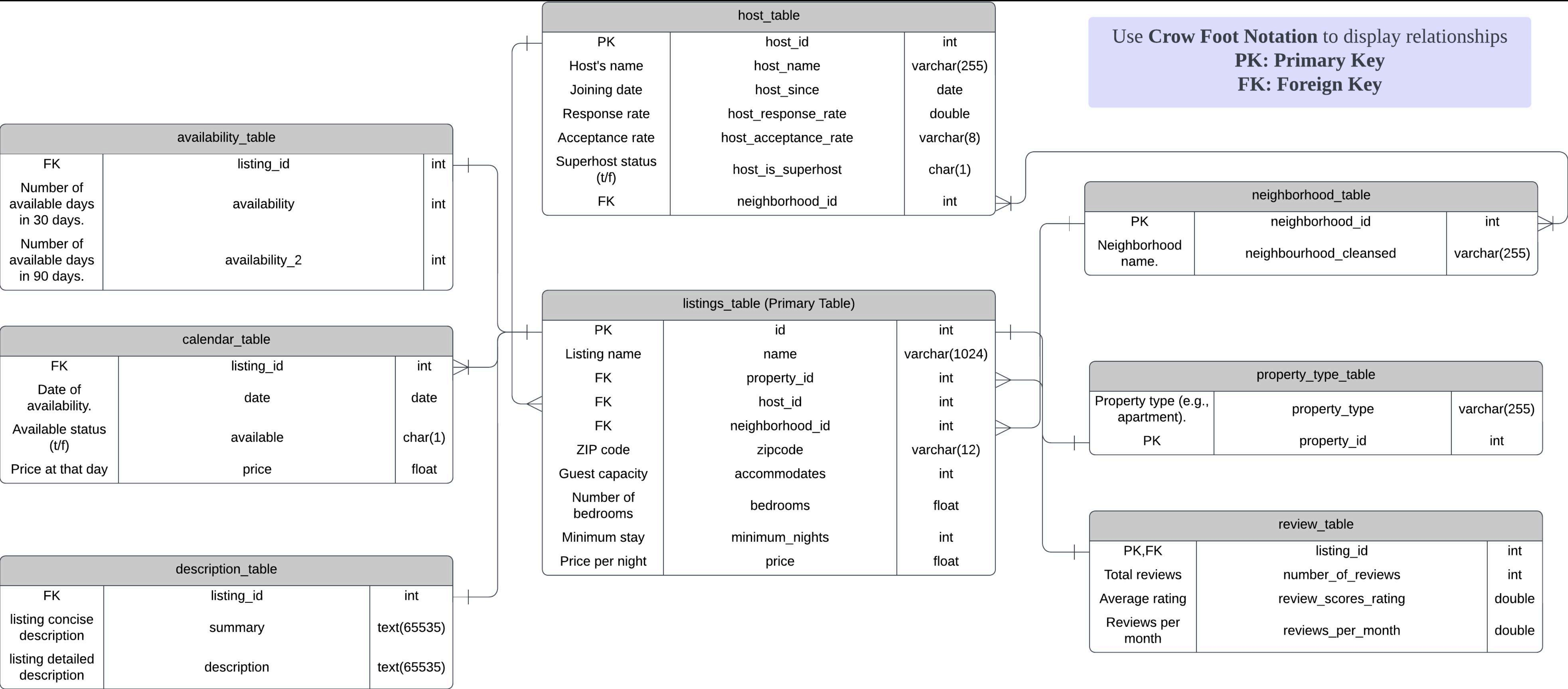
The **Boston Airbnb Open Data** dataset provides comprehensive information about Airbnb listings, including detailed descriptions, average review scores, and a calendar of availability and pricing. By analyzing this dataset, we can **reveals supply and demand trends by month and neighborhood**, enabling **data-driven strategies** for optimized promotion and pricing.



Entity-Relationship Diagram

The database structure is shown below.

Authors: jizhiyi, xinyih



Insight 1

BUSIEST TIMES OF THE YEAR TO VISIT BOSTON

September and October are the busiest months to visit Boston.

To determine the busiest times of the year to visit Boston, we analyzed the average price per month.

Actionable Recommendations:

- **Maximize Revenue:** Hosts can optimize pricing strategies to capitalize on peak demand.
- **Inventory Management:** Ensuring a higher number of listings are available during these months can meet the surge in demand.

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PEAK MONTHS

- ✿ September
Average monthly price: \$231.52
- ✿ October
Average monthly price: \$230.27

OFF-PEAK MONTHS

- ✿ January
Average monthly price: \$178.36
- ✿ February
Average monthly price: \$175.86
- ✿ March
Average monthly price: \$175.93

Insight 2

Price Spikes

Significant Price Increases

During the peak months of September and October, Airbnb prices in Boston experience substantial spikes of +20.78% and +20.12% respectively compared to the annual average.

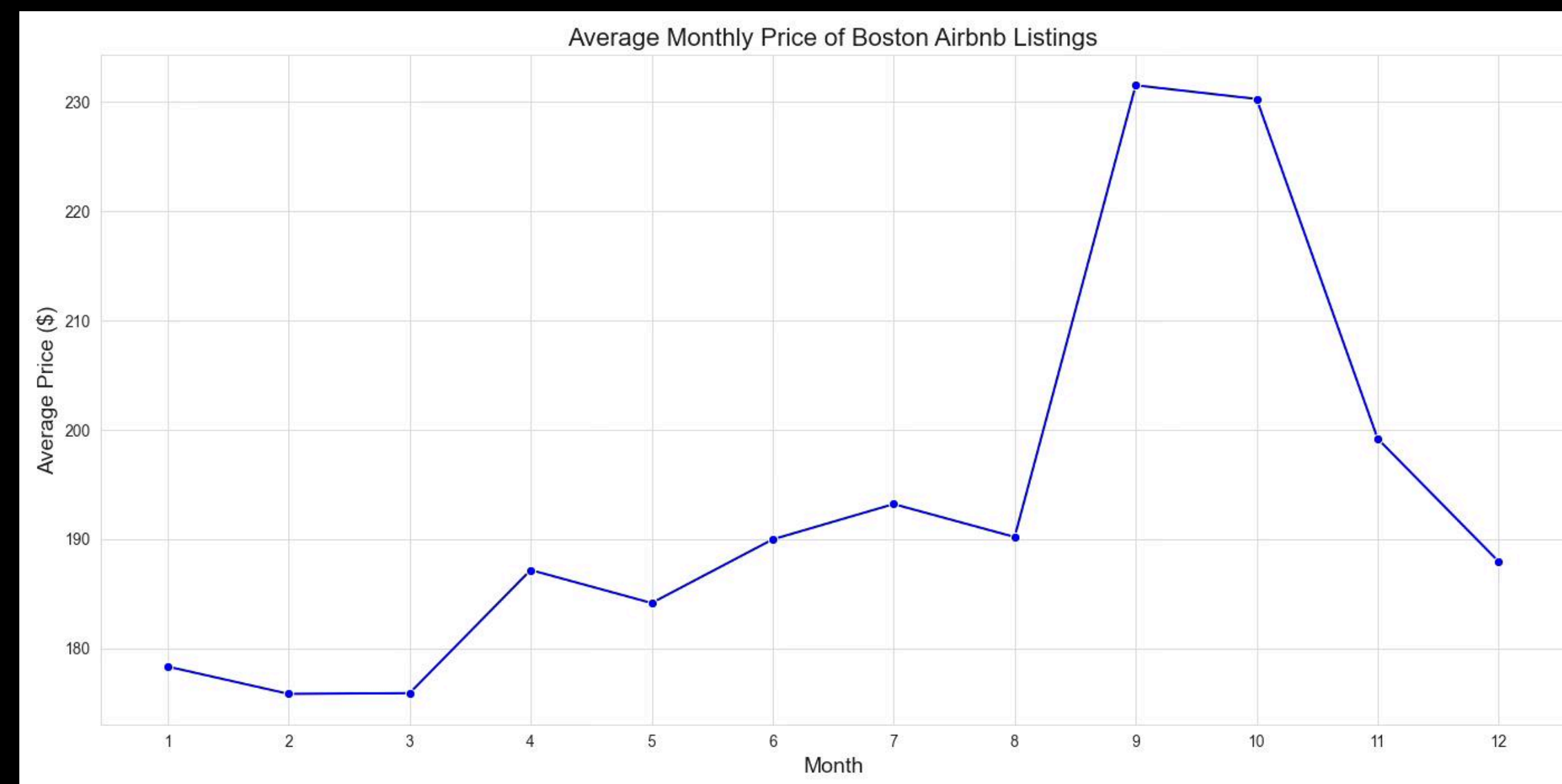
Price Stability in Off-Peak Months:

January to March: These months see price decreases between -6.95% and -8.26%, indicating lower demand.

Price Stability in Transitional Months:

April to August and November to December: Prices fluctuate modestly, with slight increases in July and November and minor decreases in other months.

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Insight 3

SUPPLY AND DEMAND SITUATION IN EACH NEIGHBORHOOD

Dorchester and East Boston present strong growth opportunities.

We analyzed supply (listing count) and demand (reviews) across neighborhoods, identifying Jamaica Plain and South End as active hubs, while Dorchester offers growth potential due to high demand but limited supply.

Actionable Recommendations:

- **Maximize Opportunities in High-Demand Areas:** Encourage more listings in neighborhoods like Dorchester to meet growing demand. Incentive hosts through promotions or reduced fees.
- **Data-Driven Pricing Strategies:** Use demand data (reviews) to set competitive and dynamic pricing, ensuring profitability for hosts while attracting visitors to underserved areas.

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HIGH DEMAND & HIGH SUPPLY

🌸 Jamaica Plain
9055 reviews, 343 listings

🌸 South End
5714 reviews, 326 listings

HIGH DEMAND & LOW SUPPLY

🌸 Dorchester
7396 reviews, 269 listings

🌸 East Boston
5504 reviews, 150 listings

LOW DEMAND & HIGH SUPPLY

🌸 Fenway
2817 reviews, 290 listings

🌸 Allston
2988 reviews, 260 listings

Insight 4

HOST AVERAGE AND TOP DATA

Hosts earn an estimated average of \$8,161.55, with top hosts earning significantly more.

We estimated earnings using review counts and listing prices and calculated the average listings per host. Hosts earn an average of \$8,161.55 and own about 3.42 listings. Top performers like Seamless and Kara far surpass the average.

Actionable Recommendations:

- **Include these data for promotion:** Highlight statistics for both average earnings and top earnings to attract new hosts and inspire existing ones by showcasing attainable benchmarks.
- **Provide Dedicated Support for High-Performing Hosts:** Offer tailored support or exclusive tools to top hosts to help them scale their operations further.

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INSIGHTS

\$8,161.55

Estimated Average host earnings

3.4172

Average listings per host

\$1,577,592

Top earnings by Seamless

1,088

Most listings by Kara

Credits

- **LATF USA.** Airbnb Goes Public: Rental Kingdom Worth \$3.4 Billion. Published December 2020. Retrieved from <https://www.latfusa.com/article/2020/12/airbnb-goes-public-rental-kingdom-worth-3-4>.
- **Kaggle.** Airbnb Boston Dataset. Retrieved from <https://www.kaggle.com/datasets/airbnb/boston>.