Airbnb Price Prediction & Market Analysis - Summary Report

# Airbnb Price Prediction & Market Analysis - Summary Report

## 1. Project Overview

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## 2. Key Questions & Answers

### Q1: What factors most influence Airbnb prices?

### Q2: How does seasonality affect rental prices?

### Q3: Can we build a model to recommend optimal pricing?

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## 3. Tasks Completed

| Task | Completed |

|------|-----------|

| Data Cleaning | ✅ |

| Feature Engineering & Encoding | ✅ |

| Model Training & Evaluation | ✅ |

| Feature Importance Analysis | ✅ |

| Insight Summary | ✅ |

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## 4. Deliverables

- \*\*Cleaned dataset\*\*: Null values handled, irrelevant columns dropped.

- \*\*Trained Price Prediction Model\*\*: Random Forest with good predictive performance.

- \*\*Feature Importance Chart\*\*: Shows most impactful variables on price.

- \*\*Actionable Insights\*\*:

- Optimize pricing by focusing on location, availability, and reviews.

- Room type and neighborhood are also important—use these to segment price strategies.

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## 5. Recommendations

- Integrate \*\*seasonal or temporal features\*\* for advanced modeling.

- Use the trained model to create \*\*dynamic pricing tools\*\*.

- Extend with clustering for market segmentation (e.g., luxury vs budget listings).