Proposed business question

Task 2 (Data Analysis – Based on Track Selection)

Each group must apply their assigned machine learning approach to analyse the dataset.

Track-Specific Expectations:

- Track 1 (Classical ML – Regression & Clustering): Apply regression models for pricing prediction and clustering techniques for customer segmentation.

Task 1 (Business Analytic Question)

Each group must propose a business-oriented question relevant to Airbnb. The question should be practical and valuable to Airbnb's strategic planning. An example might be: "How do seasonal fluctuations affect Airbnb pricing strategies in different neighbourhoods?"

Airbnb dataset as per assignment.

Regression for price prediction.

"Can Airbnb identify pricing patterns and listing segments in the NYC market to support hosts with competitive pricing and customise segment-specific guidance?"

Clustering segmentation.

Business value supporting hosts.

Rational and business outcome: by applying classical ML, we can deliver key information to the business for better decisions: EDA should unearth demand patterns and indicators from reviews and availability, regression will support right pricing decisions, and clustering supports segment grouping so Airbnb and hosts can potentially steer or increase pricing levels without negative demand impact and/or adjust pricing to support demand.