Build a Data Mart in SQL (DLBDSPBDM01)

Conception Phase – Abstract

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Goal.   Create a small Airbnb-style database that stores every step of a rental: users, listings, bookings, payments, messages, reviews, referrals, and disputes.

Solution.   We designed a 22-table relational schema. Two tables hold three-way facts (guest + booking + admin; referral + payment + admin). One table links back to itself so admins can report to other admins. Every table has its own ID; extra "link" columns point to those IDs. Only when one column is not enough—such as "property + date" for daily prices, we combine two columns into one key.

Benefits.   The model is tidy, avoids duplicate data, keeps full price history, and is ready for reporting.

Steps in this phase

1. Gathered needs: guest, host, admin and their workflows.

2. Drew an ER diagram and added the special three-way and self links.

3. Converted the diagram to 22 SQL tables with data types and keys.

4. Ran the `CREATE TABLE` script in MySQL and fixed errors.

5. Checked foreign keys and generated an automatic ER picture.

6. Wrote this short document and a data dictionary.