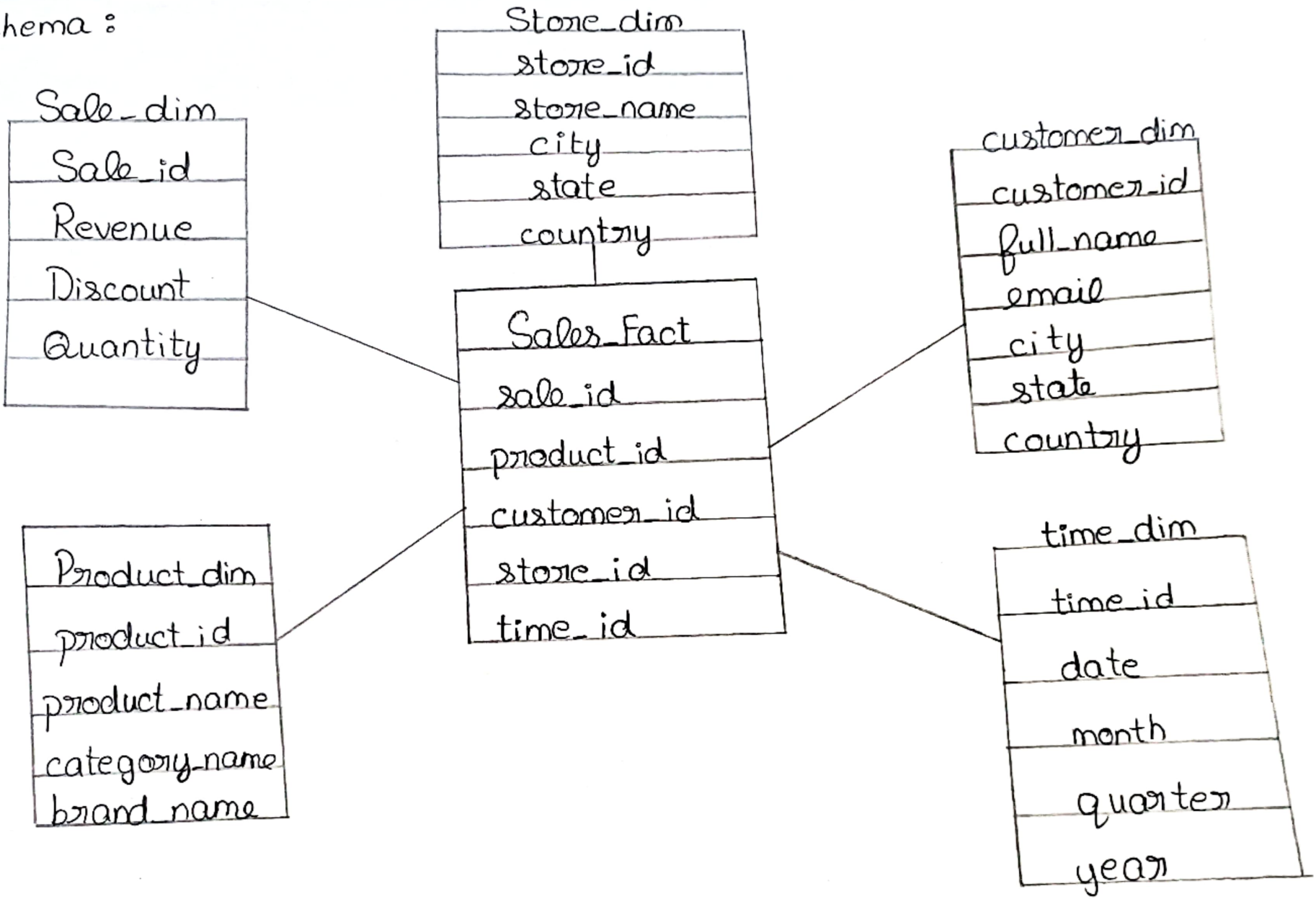
Star Schema :


Store_dim
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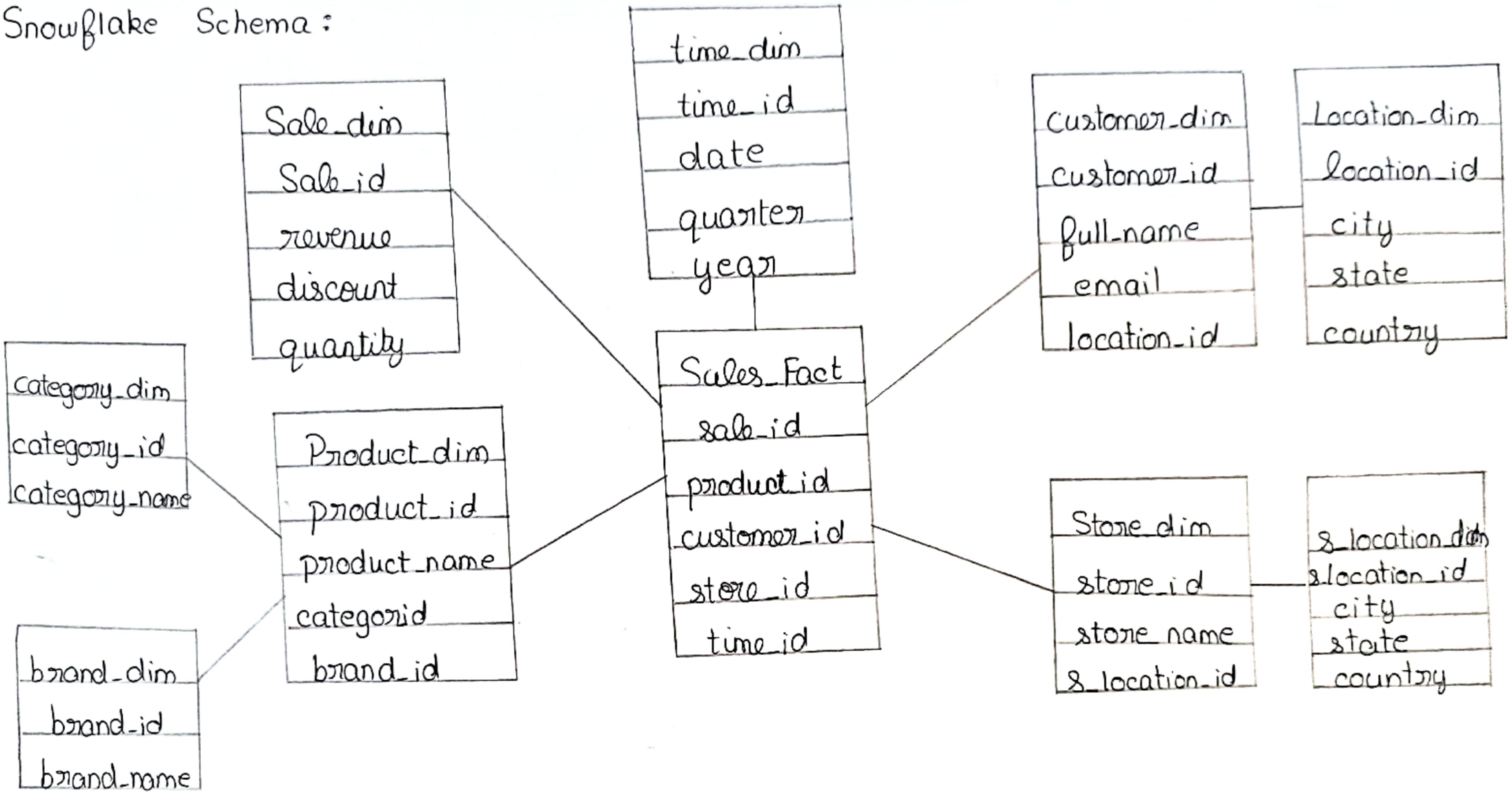
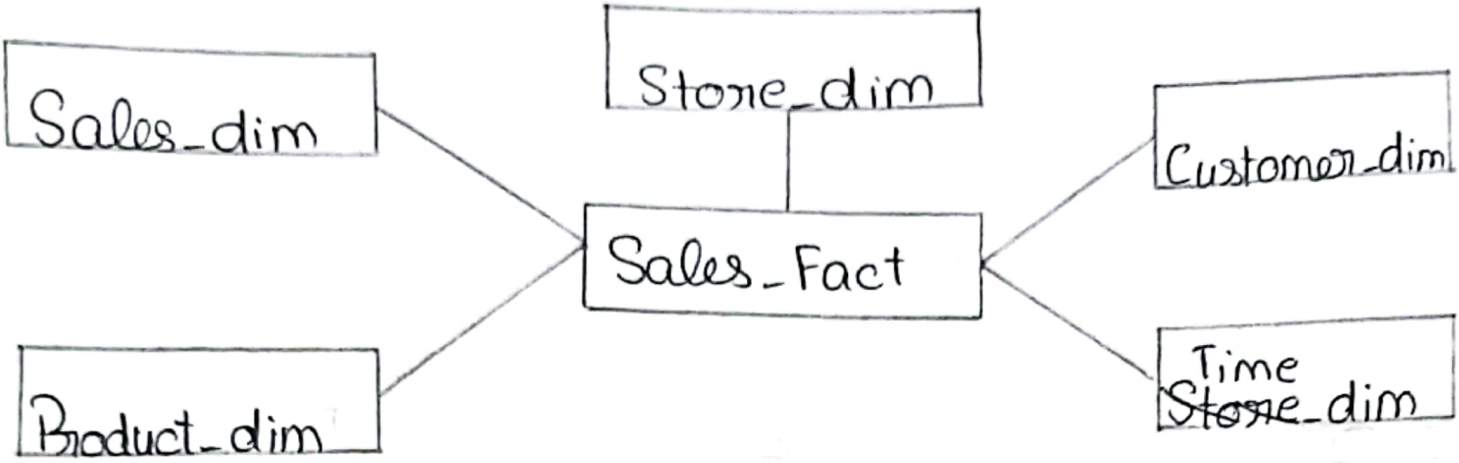
store_name
city
state
country
Sale_dim
Sale_id
Revenue
Discount
Quantity
Sales_Fact
sale_id
product_id
customer_id
store_id
time_id
customer_dim
customer_id
full_name
email
city
state
country
Product_dim
product_id
product_name
category_name
brand_name
time_dim
time_id
date
month
quarter
year

Snowflake Schema :

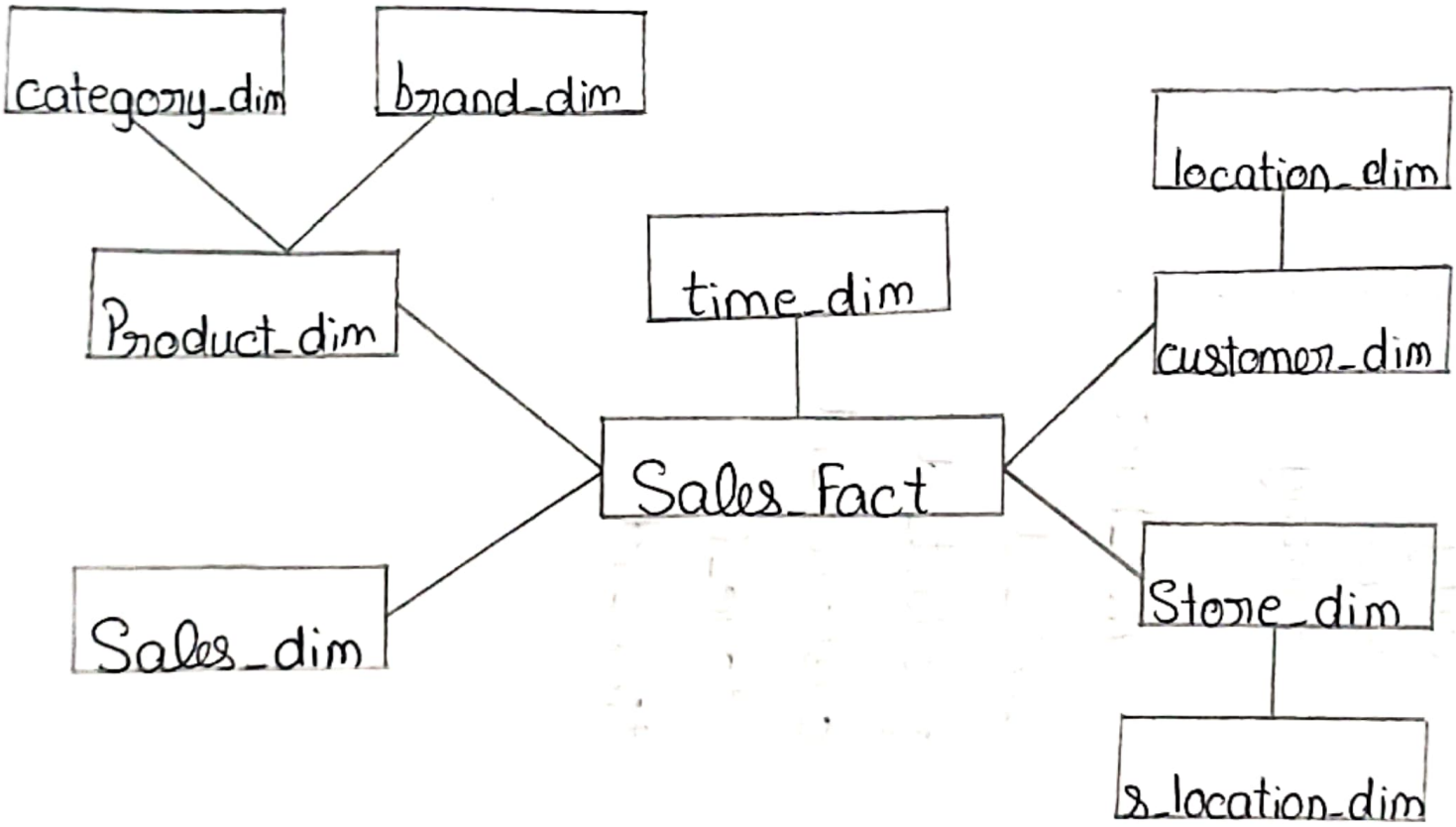


2. Dimensional Modeling:

Star schema:



Snowflake schema:



3) Performance and Storage Analysis

Criteria	Star Schema	Snowflake Schema
Query Performance	Faster for read-heavy analytics	Slightly slower due to more joins
Storage	Requires more disk space due to redundancy	More storage-efficient
Join Complexity	Low (fewer joins, simpler SQL)	High (more joins, complex SQL)
Indexing	Simpler indexing strategies	Complex due to foreign keys and deeper relationships

4) Practical Considerations

When to Use Star Schema:

- **Best for**: Fast reporting, BI tools, simple analytics
- **Scenarios**:
    - Dashboards and ad hoc queries
    - Small to medium datasets
    - Non-technical users using drag-and-drop tools

When to Use Snowflake Schema:

- **Best for**: Large-scale, normalized data models, data integrity
- **Scenarios**:
    - Large enterprise data warehouses
    - Environments where storage efficiency and maintainability are critical
    - Complex business rules and slowly changing dimensions