

README

Database Schema

The system uses two relational tables: `suppliers` and `inventory`. Each inventory item references a supplier using a foreign key, ensuring a one-to-many relationship.

Why SQL?

SQL was chosen because the data is highly structured and relational. It ensures data integrity using foreign keys and supports efficient aggregation queries like grouping inventory by supplier.

Optimization Suggestion

- Add an **index on `supplier_id`** in the `inventory` table.
- Add a **composite index on (`supplier_id, price`)** to improve aggregation performance for large datasets.