

E-Commerce DBA Project: Step-by-Step Guide

Step 1: Set Up Your Environment

- Choose RDBMS: Oracle, PostgreSQL, or MySQL
- Install RDBMS and a GUI tool (SQL Developer, pgAdmin, or DBeaver)

Step 2: Create the Database and Schema

- Use provided SQL scripts to create tables: Customers, Products, Orders, OrderItems, Payments

Step 3: Insert Sample Data

- Use INSERT INTO statements to populate each table with 10-20 sample entries

Step 4: Write Queries & Reports

- Generate sales reports, order history, top products, etc.
- Example: SELECT queries with JOINS

Step 5: Implement Security

- Create user roles and assign privileges using GRANT/REVOKE
- Apply basic encryption or auditing if supported

Step 6: Backup and Recovery

- Use RMAN/Data Pump (Oracle) or pg_dump/pg_restore (PostgreSQL)
- Demonstrate full and partial recovery

Step 7: Performance Optimization

- Create indexes
- Use EXPLAIN PLAN/ANALYZE to tune slow queries

Step 8: Documentation

- Include ERD, SQL scripts, queries, backup steps, and a summary document

Step 9: Package Your Project

- Upload to GitHub with folders: /sql, /docs, /images, /scripts

- Optionally include a demo video