COURSE - 2 Database Management System and SQL

Unit 1- 4 – Database, Data Model, and SQL DDL

Instructions:

- Throughout the course, we will use the following two data themes:
  - Sales Data
  - Financial data
- In a data model, use visual diagrams to represent tables, columns, data types, and their relationships.
- The naming conventions and standards should be followed for all tables.
- Use visual representations (e.g., PPT or Visio) to develop a conceptual and logical data model.
- To develop/implement the physical data model, you must create an SQL file with all the tables, columns, data types, and appropriate constraints.
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Exercise:

1. **Written Assignment** - What is the difference between a database and a schema?
2. **Written Assignment** - What different constraints can we apply to a table? Explain each one with some real-world scenarios.
3. **Lab Exercise**- Prepare a conceptual, logical, and physical sales and financial data model.

   Sales Data Model

   - Unit Price
   - Unit of Measure
   - Currency
   - Location
   - Customer
   - Product
   - Product Group
   - Loyalty Program
   - Discounts
   - Promotion
   - Sales Period
   - Sales

Finance Data Model

- Country
- Company
- Local Currency
- Reporting Currency
- Posting Period
- Exchange Rate
- Fiscal Year
- Cost Centre
- GL Account
- GL Account Group
- GL Posting

4. **Lab Exercise**- Add comments to the tables and disable constraints by altering the tables.
5. **Lab Exercise**- The customer table should be modified to add a column to store customer feedback and sentiment.

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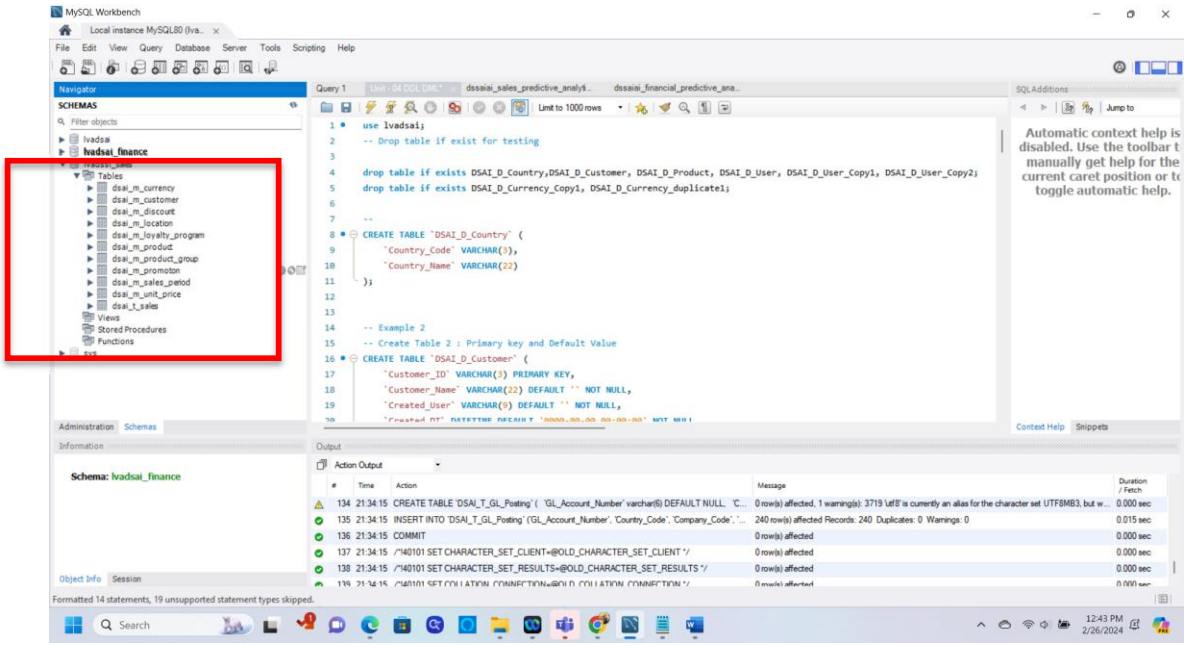
Appendix:

During session #2, we will review your physical data model in the system.

Sales Tables:



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Finance Tables: