



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

Instructions:

- Throughout the course, we will use the following two data themes:
 - o 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.

Exercise:

- Written Assignment What is the difference between a database and a schema?
- Written Assignment What different constraints can we apply to a table?
 Explain each one with some real-world scenarios.
- 3. <u>Lab Exercise</u>- 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





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

After session #2, practice the following lab.

- 6. Lab Exercise Partition the Sales table as follows.
 - o HASH partitioning.
 - KEY partitioning
 - COLUMNS partitioning
 - o sub partitioning.
 - o use ROW_NUMBER with a partition.
 - o perform table partitioning by date.
- 7. <u>Lab Exercise</u>- Display the table and partition information using the provided command.



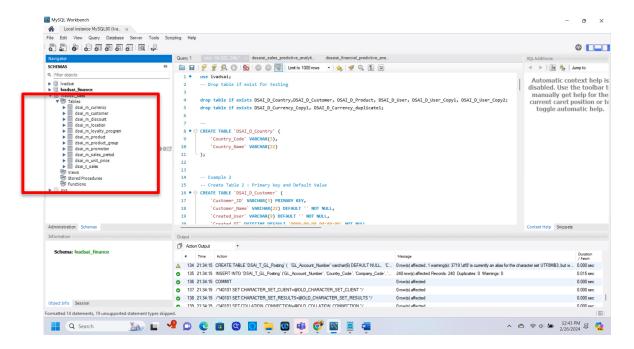


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Appendix:

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

Sales Tables:







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Finance Tables:

