Schema and Instances

Lecture-3

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What is Schema

- The term database schema can refer to a visual representation of a database, a set of rules that govern a database.
- Rules and constraints to define the database

Course

Course_Code	Course _Name	Department

Student

Student_RegNo	Student_Name	Course_Code

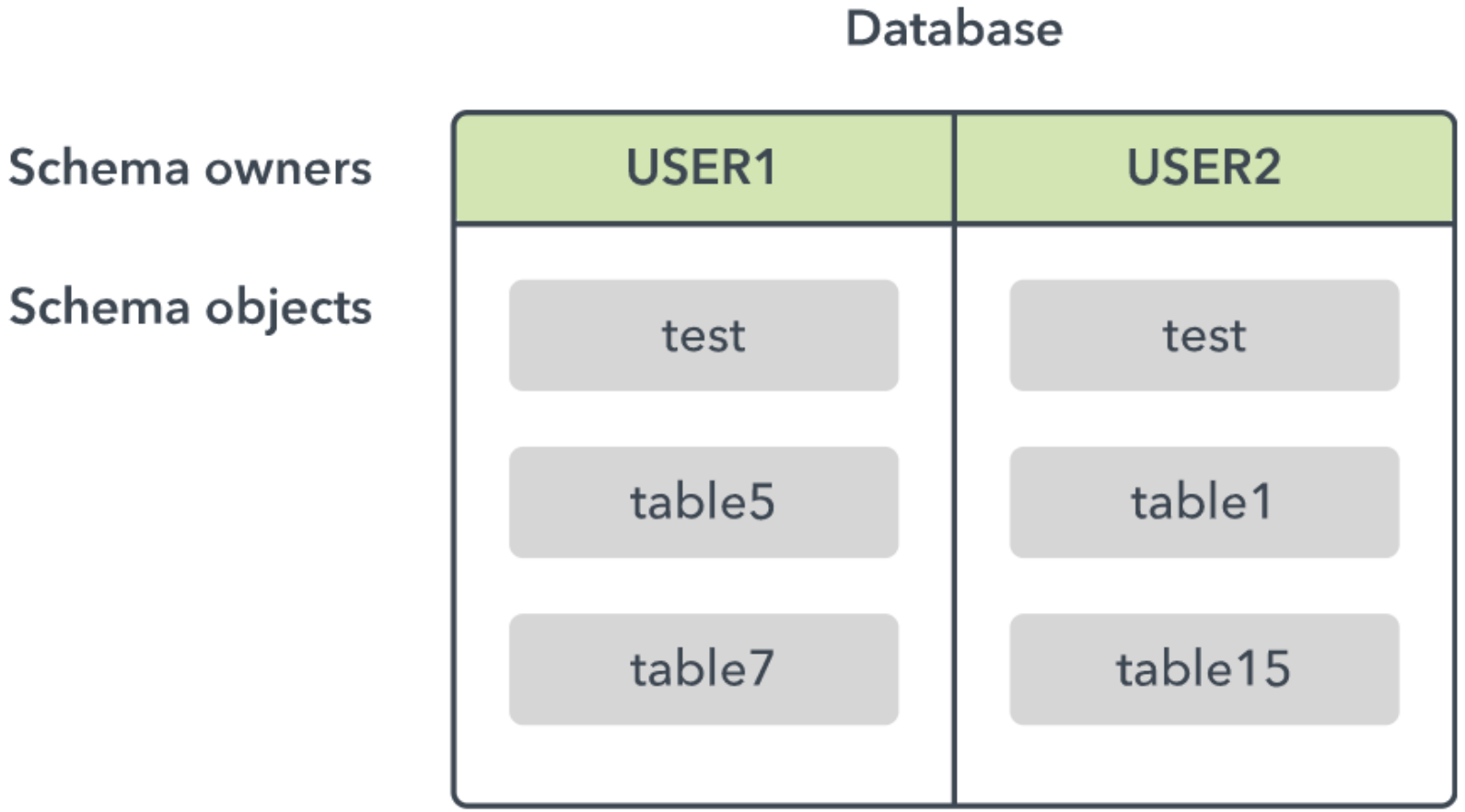
Section

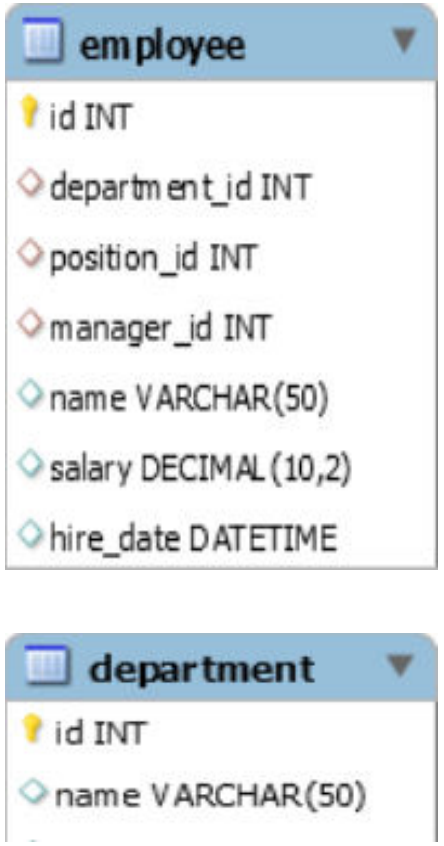
Student_RegNo	Section	Course_Id

Important Point

- A database schema is a sketch of a planned database. It doesn't have any data in it.

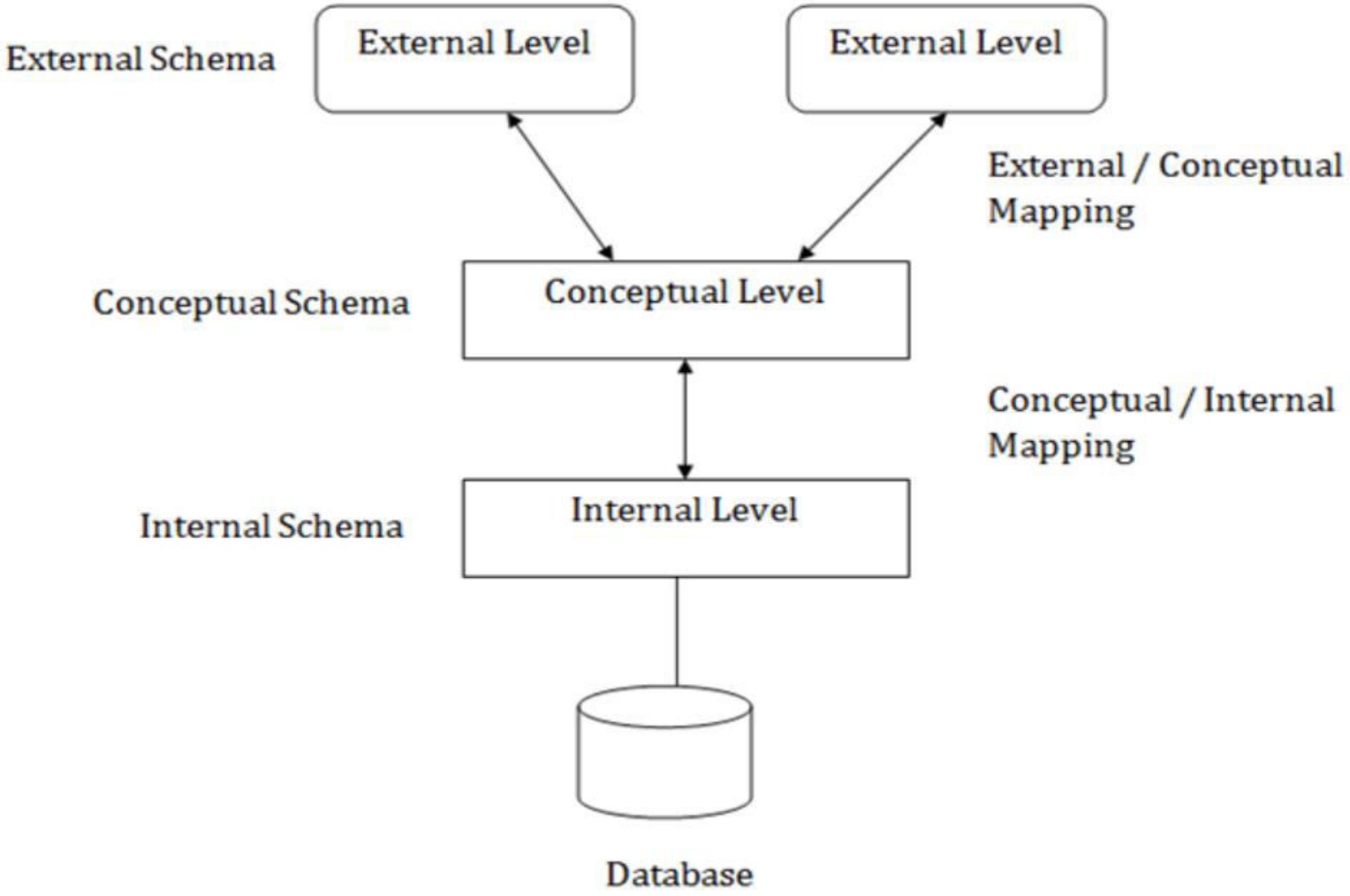
Oracle Schema





The figures shown, are examples of schema?

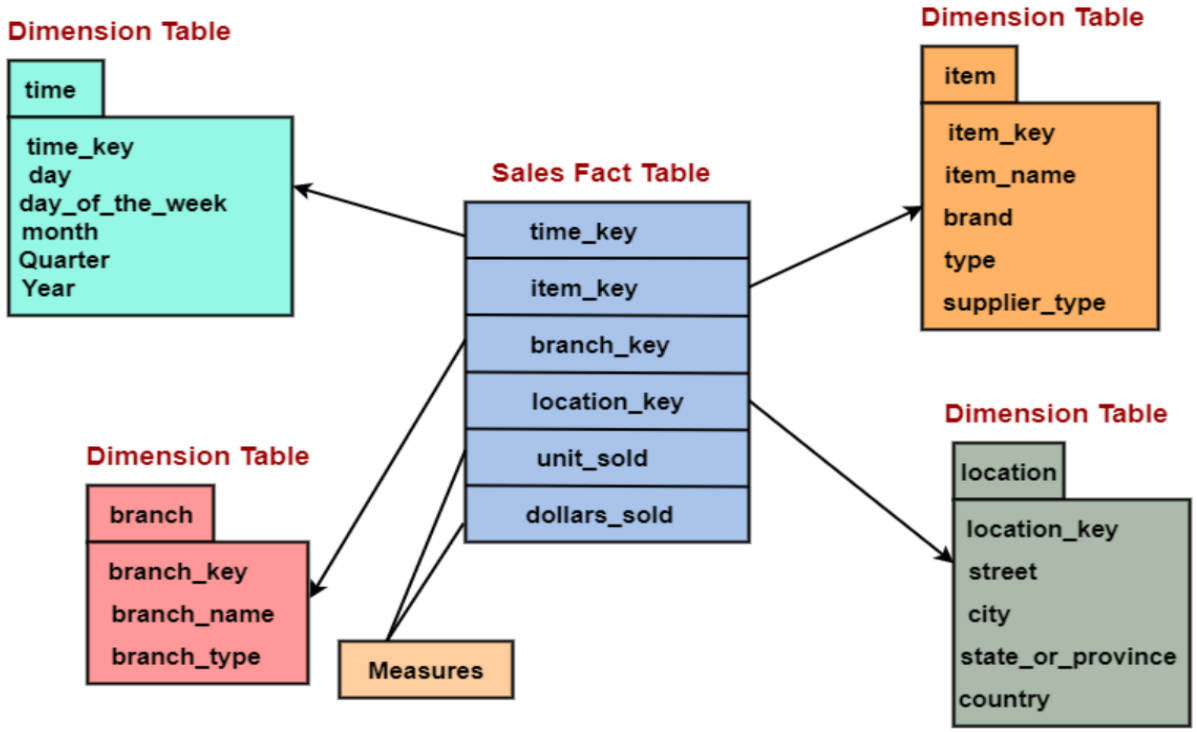
Three-level Abstraction of Schema



This gives rise to a term called Data Independence

Types of Schema

- Star Schema
  - In it, one or more fact tables are linked to any number of dimensional tables.
- Snowflake Schema
  - Snowflake schema is also used to represent a multidimensional database. It is a logical arrangement of tables in a multidimensional database such that the ER diagram resembles a snowflake shape.



The above figure is an example of snowflake schema?

Instance of a Database

- Database Schema and Instance are terms which are related to each other, but they do not mean same thing.
- A database instance is a snapshot of a database that exists at an instance of time.
- Thus, database instances can change over time, whereas a database schema is usually static.