

SNS COLLEGE OF ENGINEERING

Coimbatore-35
An Autonomous Institution

Department of IOT

19SB504 – Database Management System
III CSE-IOT/ V SEMESTER

UNIT 2 : Database Languages





Recap

- Introduction to SQL



Database Languages

Data Definition Language

- Specification notation for defining the database schema
- DDL compiler generates a set of tables stored in a data dictionary
- Data dictionary contains *metadata* (data about data)
- Data storage and definition language – special type of DDL in which the storage structure and access methods used by the database system are specified



Data Definition Language-DDL

- **Data Definition Language (DDL)** statements are used to define the database structure or schema.
Some examples:
- **CREATE** - to create objects in the database
- **ALTER** - alters the structure of the database
- **DROP** - delete objects from the database **TRUNCATE** - remove all records from a table, including all spaces allocated for the records are removed
- **COMMENT** - add comments to the data dictionary
- **RENAME** - rename an object



Data Manipulation Language (DML)

- Language for accessing and manipulating the data organized by the appropriate data model
- Two classes of languages
 - Procedural – user specifies what data is required and how to get those data
 - Nonprocedural – user specifies what data is required without specifying how to get those data



Data Manipulation Language (DML)

- **Data Manipulation Language (DML)** statements are used for managing data within schema objects.

Some examples:

SELECT - Retrieve data from the a database

- INSERT - Insert data into a table
- UPDATE - Updates existing data within a table
- DELETE - deletes all records from a table, the space for the records remain
- MERGE - UPSERT operation (insert or update)
- CALL - Call a PL/SQL or Java subprogram
- EXPLAIN PLAN - explain access path to data
- LOCK TABLE - control concurrency



Data Control Language (DCL)

- **Data Control Language (DCL) statements.**

Some examples:

GRANT - gives user's access privileges to database

- REVOKE - withdraw access privileges given with the GRANT command

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