

In []:

In []:

- Data Store => **is** a location => data
- Database => **is** a location => organization's **business data**
- DBMS => **is** a software => to maintain the database
- RDBMS => **is** a software => to maintain DB **in** the form of tables
- Metadata => data about the data

Database:

- database **is** a location where organization's **business data** stored permanently **in** computer.
- database **is** a collection of interrelated data **in** an organized form.
Example: bank db contains bank related data. **not** college related data

DBMS:

- DBMS => Database Management System / Software
- **is** a software.
- it **is** used to create **and** maintain the database.

RDBMS:

- RDBMS **is** a kind of DBMS.
- RDBMS **is** a software.
- RDBMS => Relational DataBase Management System / Software
- Relation => Table
- It **is** used to create **and** maintain the database **in** the form of tables.

SQL (Structured Query Language):

- Purpose: SQL **is** a language specifically designed **for** managing **and** manipulating relational databases.
- Nature: It **is** a query language used to write queries to interact **with** database
- Queries: Queries are requests, instructions, **or** commands sent to a database server to perform various operations.
- Non-Procedural Language: In SQL, users write queries rather than a sequence of statements **or** programs, making it a non-procedural 1
- Unified Language: SQL **is** a common language used across various relational data management systems (RDBMS), providing a unified way to interact **with** different database software.

In []:

SQL: SQL provides 5 sub languages. Each sub language provides commands.

- 1]DDL
- 2]DRL / DQL
- 3]DML
- 4]TCL
- 5]DCL / ACL

In []:

DDL (Data Definition Language)

- CREATE: Used to create a new database **or** table.
- ALTER: Modifies an existing database **or** table.

- DROP: Deletes a database or table.
- FLASHBACK: Restores a table to a previous state.
- PURGE: Removes data permanently.
- TRUNCATE: Deletes all records from a table without removing the table.
- RENAME: Changes the name of a database object.

In []: DRL/DQL (Data Retrieval/Query Language)

- SELECT: Retrieves data from a database.

In []: DML (Data Manipulation Language)

- INSERT: Adds new records to a table.
- UPDATE: Modifies existing records in a table.
- DELETE: Removes records from a table.

In []: TCL (Transaction Control Language)

- COMMIT: Saves all changes made during the current transaction.
- ROLLBACK: Undoes all changes made during the current transaction.
- SAVEPOINT: Sets a save point within a transaction to which you can later roll

In []: DCL/ACL (Data Control/Access Control Language)

- Commands for managing access and permissions, though specific commands aren't listed in the document excerpts.

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