

SQL (Structured Query Language) is not just a single tool; it is divided into several functional subsets based on what the commands actually do to the database. Think of these as different "modes" of interacting with your data.

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## 1. DDL (Data Definition Language)

DDL is used to define or modify the **structure** (schema) of the database. You aren't touching the data itself, but rather the "containers" that hold it.

- **CREATE:** To create databases, tables, or indexes.
  - **ALTER:** To modify an existing database object (like adding a column).
  - **DROP:** To delete an entire table or database.
  - **TRUNCATE:** To remove all records from a table, but keep the structure.
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## 2. DML (Data Manipulation Language)

DML is the subset used for managing the **data within** the objects. This is what you use for your day-to-day data entry and updates.

- **INSERT:** To add new rows of data.
  - **UPDATE:** To change existing data.
  - **DELETE:** To remove specific rows.
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## 3. DQL (Data Query Language)

While often grouped with DML, DQL is technically its own category focused solely on **retrieving** data. It is the most commonly used part of SQL.

- **SELECT:** The primary command used to fetch data from the database. It is often used with clauses like WHERE, GROUP BY, and ORDER BY.
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## 4. DCL (Data Control Language)

DCL deals with **permissions and security**. It controls who can see or modify your data.

- **GRANT:** Gives a user permission to perform specific tasks.
  - **REVOKE:** Takes away permissions previously granted.
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## 5. TCL (Transaction Control Language)

TCL manages **transactions**—groups of tasks that must either all succeed or all fail together. This ensures data integrity (e.g., ensuring money isn't "lost" during a bank transfer).

- **COMMIT:** Saves the changes permanently.
- **ROLLBACK:** Undoes changes if an error occurs.
- **SAVEPOINT:** Sets a point within a transaction to which you can roll back.

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### Summary Table

Subset	Purpose	Key Commands
DDL	Define Structure	CREATE, ALTER, DROP
DML	Manage Data	INSERT, UPDATE, DELETE
DQL	Retrieve Data	SELECT
DCL	Rights & Permissions	GRANT, REVOKE
TCL	Manage Transactions	COMMIT, ROLLBACK

Would you like me to provide a practical code example showing how a few of these subsets work together in a single workflow?