Steps in building a database for an application:

Real-world domain	→	Conceptual model	→	DBMS data model	→	Create Schema (DDL)	→	Load data (DML)
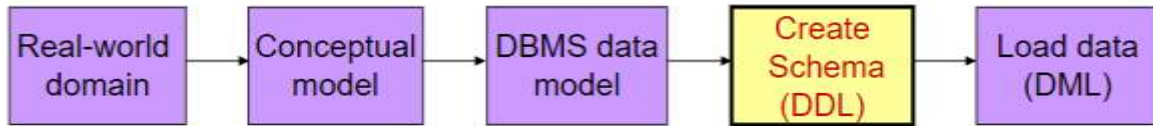
SQL:

SQL stands for Structured Query Language. It is a standard language for accessing and manipulating database. SQL became a standard of the American National Standards Institute (ANSI) in 1986 and of the International Organization for Standardization (ISO) in 1987.

SQL(Structured Query Language) is made of four sub languages as follows:

- Data Definition Language (DDL)
- Data Manipulation Language (DML)
- Data Control Language (DCL)
- Transaction Control Language (TCL)

Data Definition Language (DDL):

It consists of commands to create objects such as tables, views, indexes etc in the database.

CREATE, ALTER, DROP, RENAME, TRUNCATE are commands of DDL language which helps in defining objects. The result of compilation of DDL statements is a set of tables that is stored in a special file called Data Dictionary.

The storage structure and access methods used by database system are specified by a set of definitions in a special type DDL called data storage and definition language.

Data Manipulation Language (DML):

It is used for query, insertion, deletion and updation of information stored in database.

Data Manipulation Language (DML) consists of:

a) Retrieving Data (SELECT Command): meaning getting information out of a database.
b) Inserting Data (INSERT Command): means inserting new information in a database i.e. inserting rows in tables and changing values in columns according to current status.
c) Deleting Data (DELETE Command): means deleting information in the database i.e. deleting rows in the table.
d) Modification (UPDATE Command): means modifying the information stored in the database.

Data Control Language (DCL):

DCL is used for controlling data and access to the databases. It allows the definition of a security mechanism for protecting data in the system from unauthorized access. Commands like GRANT, REVOKE enables the user to protect the database.

Transaction Control Language:

TCL specifies the commands for the beginning and ending of transactions. Commands like COMMIT, ROLLBACK are TCL commands.