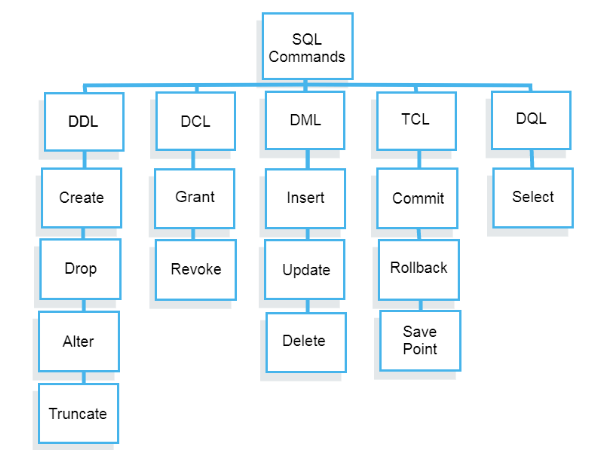
These functions include building database objects, manipulating objects, populating database tables with data, updating existing data in tables, deleting data, performing database queries, controlling database access, and overall database administration.

## Types of SQL

Here are five types of widely used SQL queries.

* Data Definition Language (DDL)
* Data Manipulation Language (DML)
* Data Control Language(DCL)
* Transaction Control Language(TCL)
* Data Query Language (DQL)

****

**Defining Database Structures**

*Data Definition Language, DDL*, is the part of SQL that allows a database user to create and restructure database objects, such as the creation or the deletion of a table.

Some of the most fundamental DDL commands discussed during following hours include the following:

CREATE TABLE

ALTER TABLE

DROP TABLE

CREATE INDEX

ALTER INDEX

DROP INDEX

CREATE VIEW

DROP VIEW

These commands are discussed in detail during Hour 3, "Managing Database Objects," Hour 17, "Improving Database Performance," and Hour 20, "Creating and Using Views and Synonyms."

**Manipulating Data**

*Data Manipulation Language, DML*, is the part of SQL used to manipulate data within objects of a relational database.

There are three basic DML commands:

INSERT

UPDATE

DELETE

These commands are discussed in detail during Hour 5, "Manipulating Data."

**Selecting Data**

Though comprised of only one command, Data Query Language (DQL) is the most concentrated focus of SQL for modern relational database users. The base command is as follows:

SELECT

This command, accompanied by many options and clauses, is used to compose queries against a relational database. Queries, from simple to complex, from vague to specific, can be easily created. The SELECT command is discussed in exhilarating detail during Hours 7 through 16.

A *query* is an inquiry to the database for information. A query is usually issued to the database through an application interface or via a command line prompt.

**Data Control Language**

Data control commands in SQL allow you to control access to data within the database. These DCL commands are normally used to create objects related to user access and also control the distribution of privileges among users. Some data control commands are as follows:

ALTER PASSWORD

GRANT

REVOKE

You will find that these commands are often grouped with other commands and may appear in a number of different lessons throughout this book.

### Transactional Control Commands

In addition to the previously introduced categories of commands, there are commands that allow the user to manage database transactions.

* COMMIT Saves database transactions
* ROLLBACK Undoes database transactions
* SAVEPOINT Creates points within groups of transactions in which to ROLLBACK

Transactional commands are discussed extensively during Hour 6, "Managing Database Transactions."

references

**https://www.informit.com/articles/article.aspx?p=29583&seqNum=3**