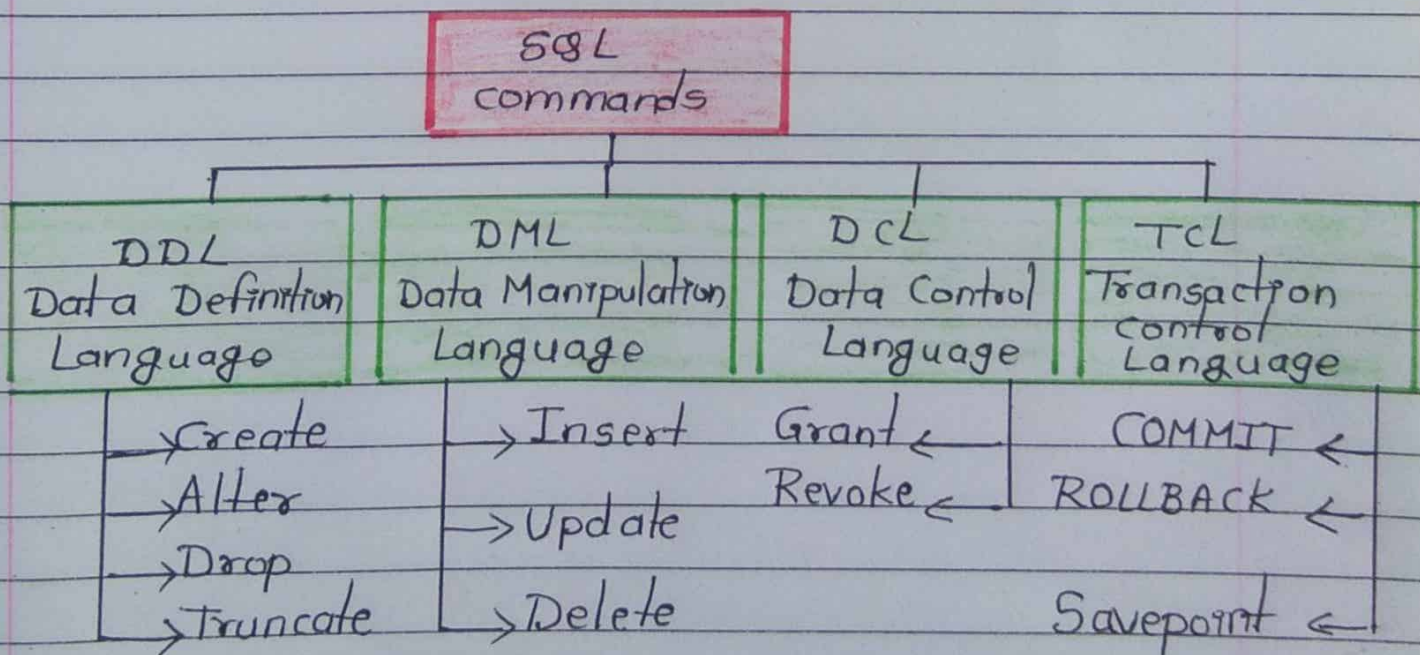


SQL SHORT NOTES

• What is SQL?

- SQL is stand for structured query language.
- This database language is mainly designed for maintaining the data relational database management systems.
- SQL is standard language for accessing and manipulating database.

• Types of SQL commands



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DDL COMMANDS

- DDL (Data Definition Language) used to change the structure of the table like creating the table, altering the table and deleting the table.
- All the commands in the DDL are auto committed that means it permanently saves all the changes in the database.

1. CREATE

this command is used to create a new database or table.

Syntax:

```
CREATE TABLE table name (  
    column1 datatype,  
    column2 datatype,  
    column3 datatype,  
);
```

Example:

```
CREATE TABLE Employee  
(  
    EmployeeID int,  
    FirstName varchar (255),  
    LastName varchar (255),  
    AddressLine varchar (255),  
    City varchar (255)  
);
```

2. Alter

- The Alter table statements in structured query language allows to add, modify and delete columns of an existing table.

- Syntax :-

```
ALTER TABLE table_name  
ADD column_name datatype
```

- Example :-

```
ALTER TABLE Employee  
ADD Email varchar(255);
```

3. DROP

- The DROP table statement is used to drop an existing table in a database this command deletes both the structures and Records stored in table.

- Syntax : DROP TABLE table_name;

- Example :- DROP TABLE Employee

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4. TRUNCATE

- A truncate SQL statement is used to remove all rows (complete data) from a table. It is similar to DELETE statement with no WHERE clause.
- Syntax: TRUNCATE TABLE table name;
- Example: TRUNCATE TABLE Employee;

• DML Commands

1. INSERT

- SQL INSERT statement is a SQL query. It is used to insert a single or a multiple records in a table.

Syntax- INSERT INTO table name values (value 1, value 2, value 3 ...);

Example- INSERT INTO STUDENTS (ROLL NO, NAME, AGE, CITY) VALUES (1, Yadnyesh, 19, PUNE);

2. UPDATE

- The UPDATE statement is used to modify existing records in a table.

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Syntax :- UPDATE table name
SET column1 = value 1, column2 =
value 2 ...
WHERE Condition;

Example :- UPDATE CUSTOMERS
SET contactName = 'yadu', city = 'pune'
WHERE CustomerID = 101;

3. DELETE

• The DELETE statement is used to delete existing records in a table.

Syntax :- DELETE FROM table_name [where
condition] ;

Example :- DELETE FROM CUSTOMERS WHERE
customerName = "yadu";

DCL COMMANDS

1. GRANT

• It is used to give user access privileges to a database.

Syntax - GRANT SELECT, UPDATE ON MY TABLE
TO SOME USER, ANOTHER USER;

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2. REVOKE

- This command withdraws the user's access privileges given by using the GRANT command.

GRANT SELECT, UPDATE ON MY TABLE TO SOME USER, ANOTHER USER;

Syntax :- REVOKE SELECT, UPDATE ON MY TABLE FROM USER1, USER2;

• TCL Commands

1. COMMIT

- Commit a Transaction. The COMMIT command saves all the transactions to the database since the last COMMIT or ROLLBACK command.

Syntax :- COMMIT

Example :- DELETE FROM student WHERE AGE = 20;
COMMIT;

2. ROLLBACK

- If any error occurs with any of the SQL grouped statements, all changes need to be aborted. The process of reversing changes is called rollback.

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Syntax: ROLLBACK;

Example:- DELETE FROM student WHERE
AGE = 20;
ROLLBACK;

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