

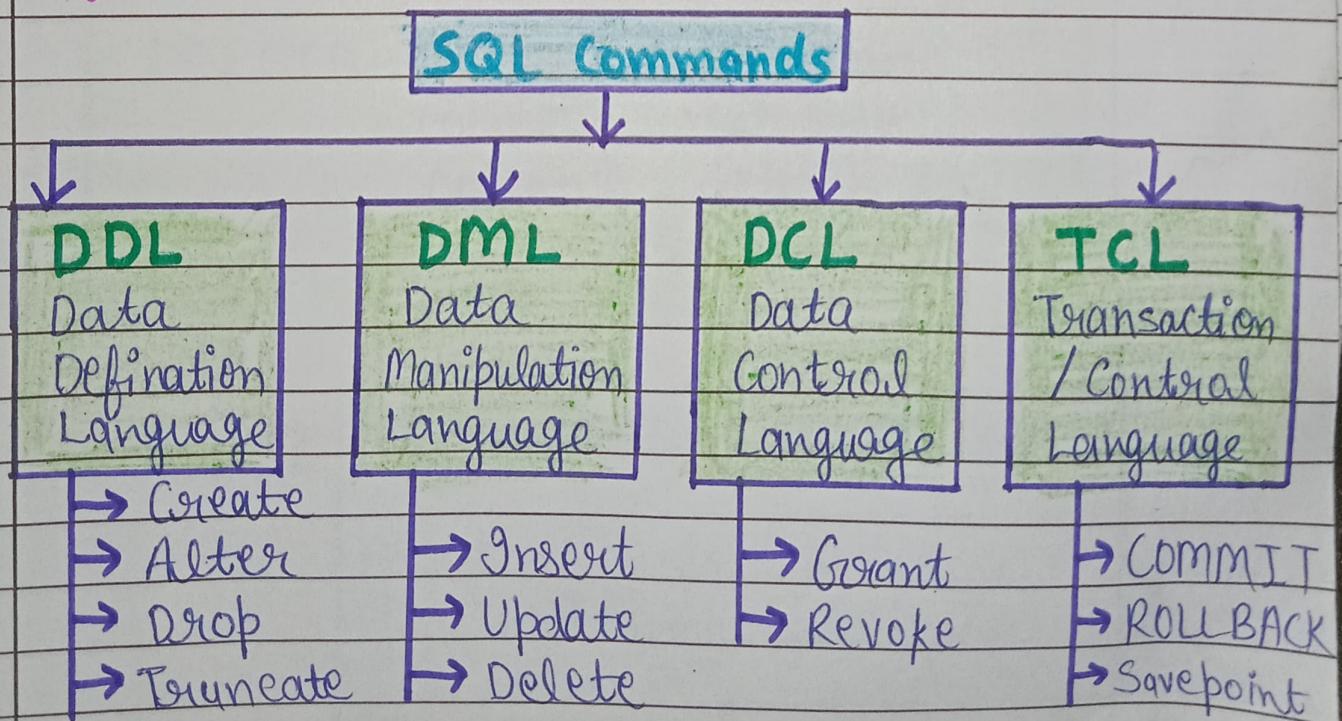
SQL SHORT NOTES

What is SQL?

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

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Types of SQL Commands :-



DDL (Data Definition Language) Commands :-

- # DDL 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.

I. CREATE :-

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

Syntax :-

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```
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 structure and records stored in table.

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Syntax :-

DROP TABLE table-name ;

Example :-

DROP TABLE Employee

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 (Data Manipulation Language) :-

1. INSERT :-

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

Syntax :-

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```
INSERT INTO table-name values
(Value1, Value2, value3 --- );
```

Example :-

```
INSERT INTO STUDENTS (ROLL-NO,
NAME, AGE, CITY) VALUES (1,
Sanjana, 21, HARYANA);
```

2. UPDATE :-

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

Syntax :-

```
UPDATE table-name
SET column1 = value1,
column2 = value2 ...
WHERE condition;
```

Example :-

```
UPDATE CUSTOMERS
SET contactName = 'Chinu',
city = 'Punjab'
WHERE customerID = 101;
```

3. DELETE :- ©Topperworld

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

Syntax :-

DELETE FROM table-name [Where condition];

Example :-

DELETE FROM CUSTMORS WHERE CustomerName = 'Chinu';

DCL (Data Control Language) Commands :-

I. **GRANT** :-

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

Syntax :-

GRANT SELECT , UPDATE ON my_TABLE TO SOME_USER, ANOTHER_USER;

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 (Transaction Control Language) :-

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 statement, all changes need to be aborted. The process of reversing changes is called rollback.

Syntax :-

ROLLBACK ;

Example :-

```
DELETE FROM student WHERE  
AGE = 20;  
ROLLBACK;
```

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