

```
SELECT  
column1,  
column2  
FROM  
table_name
```

CATEGORIES
OF

STRUCTURED QUERY LANGUAGE

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DDL – DATA DEFINITION LANGUAGE

- Used to create and modify database structure
- Works on tables, schemas, views

CREATE IS USED TO CREATE A NEW DATABASE OBJECT LIKE A TABLE, DATABASE, OR VIEW.

ALTER IS USED TO MODIFY THE STRUCTURE OF AN EXISTING TABLE.

DROP IS USED TO PERMANENTLY DELETE A TABLE OR DATABASE FROM THE SYSTEM.

TRUNCATE IS USED TO DELETE ALL RECORDS FROM A TABLE VERY QUICKLY WITHOUT DELETING THE TABLE ITSELF.

CREATE

ALTER

DROP

TRUNCATE

```
CREATE TABLE table_name (  
    column1 datatype,  
    column2 datatype);
```

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

```
DROP TABLE table_name;
```

```
TRUNCATE TABLE table_name;
```

1

Alice

23

2

Bob

42

DML - DATA MANIPULATION

LANGUAGE

INSERT IS USED TO ADD NEW RECORDS INTO A TABLE.

UPDATE IS USED TO MODIFY EXISTING RECORDS IN A TABLE.

DELETE IS USED TO REMOVE RECORDS FROM A TABLE.

SELECT IS USED TO RETRIEVE DATA FROM A TABLE.

- DML is used to insert, update, delete, and retrieve data from tables.
- DML works on data inside the table, not on the table structure.

INSERT

UPDATE

DELETE

SELECT

INSERT INTO table_name (col1, col2)
VALUES (value1, value2);

UPDATE table_name
SET column_name = value
WHERE condition;

DELETE FROM table_name
WHERE condition;

SELECT * FROM table_name;

DCL - DATA CONTROL LANGUAGE

GRANT

GRANT

is used to give permissions to a user to access database objects.

REVOKE

REVOKE

is used to remove permissions from a user.

- DCL is used to control user access and permissions in a database.
 - It helps in maintaining database security.

SYNTAX:

GRANT permission_name
ON table_name
TO user_name;

SYNTAX:

REVOKE permission_name
ON table_name
FROM user_name;

TCL-TRANSACTION CONTROL LANGUAGE

COMMIT

COMMIT IS USED TO PERMANENTLY
SAVE CHANGES MADE IN A
TRANSACTION.

SYNTAX: COMMIT;

ROLLBACK

ROLLBACK IS USED TO UNDO
CHANGES MADE SINCE THE
LAST COMMIT.

SYNTAX: ROLLBACK;

- TCL is used to manage transactions in a database.
- It helps in saving or undoing changes made to data.

SAVEPOINT

ROLLBACK

SAVEPOINT IS USED TO SET A
POINT INSIDE A TRANSACTION
TO ROLLBACK TO LATER.

SYNTAX:
SAVEPOINT savepoint_name;

SQL CONSTRAINTS

NOT NULL

NOT NULL ensures that a column cannot have empty values.

UNIQUE

UNIQUE ensures that all values in a column are different.

PRIMARY KEY

PRIMARY KEY uniquely identifies each record in a table.

FOREIGN KEY

FOREIGN KEY links one table to another table.

CHECK

CHECK restricts the values that can be stored in a column.

DEFAULT

DEFAULT sets a default value for a column.



THANK YOU</>

ANY QUERIES??

SQL