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😎 \*\*DDL Commands\*\*

1. \*\*CREATE\*\*

Used to create a new table or database.

```sql

CREATE TABLE Employees (

EmployeeID INT PRIMARY KEY,

FirstName VARCHAR(50) NOT NULL,

LastName VARCHAR(50) NOT NULL,

DepartmentID INT

);

```

2. \*\*ALTER\*\*

Used to modify an existing table (e.g., add, delete, or modify columns).

```sql

-- Add a new column

ALTER TABLE Employees ADD Email VARCHAR(100);

-- Modify an existing column

ALTER TABLE Employees MODIFY COLUMN FirstName VARCHAR(100);

-- Drop a column

ALTER TABLE Employees DROP COLUMN DepartmentID;

```

3. \*\*DROP\*\*

Used to delete an entire table or database.

```sql

DROP TABLE Employees;

```

4. \*\*TRUNCATE\*\*

Used to delete all rows from a table without deleting the table structure.

```sql

TRUNCATE TABLE Employees;

```

5. \*\*RENAME\*\*

Used to rename a table or column.

```sql

-- Rename a table

ALTER TABLE Employees RENAME TO Staff;

-- Rename a column

ALTER TABLE Staff RENAME COLUMN EmployeeID TO StaffID;

```

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😎 \*\*Constraints\*\*

1. \*\*PRIMARY KEY\*\*

Uniquely identifies each row in a table.

```sql

CREATE TABLE Students (

StudentID INT PRIMARY KEY,

Name VARCHAR(50) NOT NULL

);

```

2. \*\*FOREIGN KEY\*\*

Ensures referential integrity between two tables.

```sql

CREATE TABLE Orders (

OrderID INT PRIMARY KEY,

ProductName VARCHAR(50),

StudentID INT,

FOREIGN KEY (StudentID) REFERENCES Students(StudentID)

);

```

3. \*\*NOT NULL\*\*

Ensures that a column cannot have NULL values.

```sql

CREATE TABLE Customers (

CustomerID INT PRIMARY KEY,

CustomerName VARCHAR(50) NOT NULL

);

```

4. \*\*UNIQUE\*\*

Ensures that all values in a column are unique.

```sql

CREATE TABLE Users (

UserID INT PRIMARY KEY,

Email VARCHAR(100) UNIQUE

);

```

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😎 \*\*Combining Constraints\*\*

Here’s an example of a table with multiple constraints:

```sql

CREATE TABLE Employees (

EmployeeID INT PRIMARY KEY,

FirstName VARCHAR(50) NOT NULL,

LastName VARCHAR(50) NOT NULL,

Email VARCHAR(100) UNIQUE,

DepartmentID INT,

FOREIGN KEY (DepartmentID) REFERENCES Departments(DepartmentID)

);

```

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These examples cover the basic usage of DDL commands and constraints in SQL. Let me know if you need further clarification!