📒 MySQL Cheat Sheet

🔷 Database & Table Management

- CREATE DATABASE dbname; ➜ Create a new database

- DROP DATABASE dbname; ➜ Delete a database

- USE dbname; ➜ Switch to a database

- SHOW DATABASES; ➜ List all databases

- SHOW TABLES; ➜ List tables in current DB

- DESCRIBE tablename; ➜ Show table structure

- CREATE TABLE tablename (...); ➜ Create a new table

- DROP TABLE tablename; ➜ Delete a table

- ALTER TABLE tablename ADD col datatype; ➜ Add column

- ALTER TABLE tablename DROP col; ➜ Remove column

- ALTER TABLE tablename MODIFY col datatype; ➜ Change column type

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🔷 Insert, Update, Delete

- INSERT INTO tablename VALUES (...); ➜ Insert row

- INSERT INTO tablename (col1, col2) VALUES (...); ➜ Insert into specific columns

- UPDATE tablename SET col=value WHERE condition; ➜ Update rows

- DELETE FROM tablename WHERE condition; ➜ Delete rows

- TRUNCATE TABLE tablename; ➜ Remove all rows (faster than DELETE)

🔷 Select Queries

- SELECT * FROM tablename; ➜ Select all columns

- SELECT col1, col2 FROM tablename; ➜ Select specific columns

- SELECT DISTINCT col FROM tablename; ➜ Remove duplicates

- SELECT col AS alias FROM tablename; ➜ Rename column in result

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🔷 Filtering Data

- WHERE → Filter rows

  - =, >, <, >=, <=, <> → Comparisons

  - BETWEEN x AND y → Range

  - IN (a,b,c) → Match list

  - LIKE 'A%' → Pattern (A then anything)

  - IS NULL / IS NOT NULL → Check null values

◆ Sorting & Limiting

- ORDER BY col ASC|DESC; → Sort results

- LIMIT n; → Limit number of rows

- LIMIT x,y; → Skip x rows, then show y

◆ Aggregate Functions

- COUNT(*) → Number of rows

- SUM(col) → Total sum

- AVG(col) → Average

- MIN(col) → Minimum value

- MAX(col) → Maximum value

- GROUP BY col → Group rows

- HAVING condition → Filter groups

◆ Joins

- INNER JOIN → Rows with matches in both tables

- LEFT JOIN → All rows from left + matches from right

- RIGHT JOIN → All rows from right + matches from left

- FULL JOIN (not in MySQL by default, emulate with UNION)

◆ Keys & Constraints

- PRIMARY KEY → Unique, not null identifier

- FOREIGN KEY → Reference to another table

- ON DELETE CASCADE → Delete child rows when parent is deleted

- ON UPDATE CASCADE → Update child rows when parent changes

◆ Transactions

- START TRANSACTION; → Begin transaction

- SAVEPOINT name; → Mark a point

- ROLLBACK TO name; → Undo to savepoint

- ROLLBACK; → Undo all

- COMMIT; → Save changes

- SET autocommit = 0; → Disable auto commit

◆ Indexes & Views

- CREATE INDEX idx ON tablename(col); → Speed up queries

- DROP INDEX idx ON tablename; → Remove index

- CREATE VIEW viewname AS SELECT ...; → Virtual table

- DROP VIEW viewname; → Delete view

◆ Users & Permissions

- CREATE USER 'name'@'host' IDENTIFIED BY 'pwd'; → Add user

- GRANT ALL ON db.* TO 'name'@'host'; → Give permissions

- REVOKE ... → Remove permissions

- SHOW GRANTS FOR 'name'@'host'; → See permissions