MySQL Queries Cheat Sheet

1. Database Queries

CREATE DATABASE mydb;

SHOW DATABASES;

USE mydb;

DROP DATABASE mydb;

2. Table Queries

CREATE TABLE students (id INT PRIMARY KEY, name VARCHAR(100));

SHOW TABLES;

DESCRIBE students;

RENAME TABLE old_name TO new_name;

DROP TABLE students;

TRUNCATE TABLE students;

3. CRUD Operations

-- Create

INSERT INTO students (name, age) VALUES ('Alice', 22);

-- Read

SELECT * FROM students;

SELECT name, age FROM students WHERE age > 20;

-- Update

UPDATE students SET age = 23 WHERE name = 'Alice';

-- Delete

DELETE FROM students WHERE age < 18;

4. Filtering & Sorting

WHERE, AND, OR, LIKE, BETWEEN, IN, ORDER BY, LIMIT

SELECT * FROM students WHERE age > 20 ORDER BY age DESC LIMIT 5;

5. Joins

INNER JOIN, LEFT JOIN, RIGHT JOIN

SELECT * FROM students INNER JOIN courses ON students.course_id = courses.id;

6. Aggregate Functions

COUNT, AVG, MIN, MAX, SUM

SELECT COUNT(*), AVG(age), MIN(age), MAX(age) FROM students;

7. Group By & Having

SELECT course_id, COUNT(*) FROM students GROUP BY course_id;

HAVING COUNT(*) > 5;

8. Constraints in Table Creation

CREATE TABLE users (

  id INT PRIMARY KEY AUTO_INCREMENT,

  email VARCHAR(255) UNIQUE NOT NULL,

  password VARCHAR(255) NOT NULL,

  created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP

);

9. Altering Tables

ALTER TABLE students ADD gender VARCHAR(10);

ALTER TABLE students MODIFY age INT NOT NULL;

ALTER TABLE students DROP COLUMN gender;

ALTER TABLE students RENAME COLUMN old_name TO new_name;

10. User Management & Privileges

CREATE USER 'newuser'@'localhost' IDENTIFIED BY 'password';

GRANT ALL PRIVILEGES ON mydb.* TO 'newuser'@'localhost';

FLUSH PRIVILEGES;

11. Indexes

CREATE INDEX idx_name ON students(name);

```
DROP INDEX idx_name ON students;
```

12. Views

```
CREATE VIEW adult_students AS SELECT * FROM students WHERE age >= 18;
SELECT * FROM adult_students;
DROP VIEW adult_students;
```

13. Stored Procedures

```
DELIMITER //
CREATE PROCEDURE GetStudents()
BEGIN
  SELECT * FROM students;
END //
DELIMITER ;
CALL GetStudents();
```

14. Transactions

```
START TRANSACTION;
UPDATE account SET balance = balance - 100 WHERE id = 1;
UPDATE account SET balance = balance + 100 WHERE id = 2;
COMMIT; -- Or ROLLBACK to undo
```