⇨ MySQL Cheat Sheet

1. Database Management System

→ MySQL is a open source relational database management System (RDBMS) that uses Structured Query Language (SQL) to manage and manipulate data.

→ It provides a scalable, reliable and fast solution for managing large volumes of data.

2. Tables and fields

→ Tables are the fundamental structures in MySQL databases, organising data into rows and columns.

→ Each table consists of fields (columns) defining the data types, and records (rows), representing the actual data.

→ Statements used are :-   CREATE TABLE
                           ALTER TABLE
                           DROP TABLE

3. Queries

→ SQL queries are used to retrieve, insert, update, and delete data from MySQL databases.

→ Commands used to interact with the database are :-
SELECT, INSERT, UPDATE, DELETE.

→ Clauses used to filter, sort and group data are :-
WHERE, ORDER BY, GROUP BY

4. Joins

→ Joins are used to combine rows from two or more tables based on a related column between them.

→ Joins are fundamentals for retrieving data from multiple tables in a single query.

→ MySQL supports different types of joins including :- INNER JOIN, LEFT JOIN, RIGHT JOIN, FULL JOIN.

5. INdexes

→ Indexes improve the performance of database queries by providing a quick lookup mechanism.

→ They help speed up data retrieval operations by allowing MySQL to quickly locate rows in a table.

→ Indexes can be created on one or more columns using CREATE INDEX statement.

6. Functions and Stored Procedures

→ MySQL provides a variety of built-in functions for performing operations on data.

→ These functions include mathematical, string, date and time and aggregate functions.

→ MySQL also allows users to create and execute stored procedures, which are precompiled SQL statements stored in the database.

7. Views

→ Views are virtual tables generated by queries.

→ They can simplify complex queries, enhance data security, and improve performance.

→ Statements used are CREATE VIEW, ALTER VIEW, DROP VIEW.

8. Transactions

→ Transactions ensure the integrity of the database by grouping multiple SQL queries into a single unit of work.

→ MySQL support transactions with the ACID (atomicity, consistence, isolation, durability) properties.

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