

MySQL Cheat Sheet :

* MySQL is a popular and powerful and popular open-source relational database management system (RDBMS). It is widely used for storing, managing and Accessing data in various applications.

Relational Database :

A relational database is a type of database that stores information in structured way using table with rows and columns. It follows a specific data model called the relational model, which emphasize data integrity and minimize redundancy.

Benefits :

- * Open-source.
- * Cross-platform.
- * Scalability.
- * Performance.
- * Large Community.

Common Use Cases :

or web Applications

or E-Commerce platform

or Content Management System

or Data Analytics

• Structured Query Language:

Structured Query Language (SQL) is a standardized language especially designed to interact with relational databases. It allows to create, access, manipulate and control data stored in these databases.

Fundamental operation (CRUD):

- create: use statements like 'create TABLE' to define new tables within the database, specifying their structure (cols & data types)

- Read: Retrieve data from table using 'SELECT' and filter data using 'WHERE' clause and sort data with 'ORDER BY'.

- update: Modify existing data in tables with 'UPDATE' statements specifying changes to be made and condition to select the row

- Delete: Remove unwanted data rows from tables using 'DELETE' statements.

MySQL Language Statements:

- Data Definition Language: DDL statements like CREATE, ALTER, DROP are used to manage the database schema initially.

- Data Manipulation Language (DML): DML statements like INSERT, UPDATE and DELETE focus on manipulating data within the tables.

-9. Data Control Language (DCL) : DCL statements like GRANT and REVOKE are used to manage user's permission with the database.

Join :

Joins are a fundamental concept in SQL that allow you to combine data from multiple tables based on related columns. This is essential for retrieving information that spans across different tables in your relational database.

Types of joints :-

- Inner join: It retrieves rows from tables where there's a match in the join condition.
- Left join: This join returns all rows from the left table, even if there is no match in the right table.
- Right join: Similar to left join, but it returns all rows from the right table and matching rows from left table.
- Full join: This join combines all rows from both tables, regardless of whether there's a match in the join condition. Rows with matches will have data from both tables, and unmatched rows will have null values in the corresponding columns from an unmatched row.