

Introduction to MySQL

- Introduction to Databases
- Introduction to RDBMS
- Explain RDBMS through normalization
- Different types of RDBMS
- Software Installation (MySQL Workbench)

SQL Commands and Data Types

- Types of SQL Commands (DDL, DML, DQL, DCL, TCL) and their applications
- Data Types in SQL (Numeric, Char, Datetime)

DQL & Operators

- SELECT: LIMIT, DISTINCT, WHERE, AND, OR, IN, NOT IN, BETWEEN, EXIST, ISNULL, IS NOT NULL, Wild Cards, ORDER BY

Case When Then and Handling NULL Values

- Usage of Case When Then to solve logical problems and handling NULL Values (IFNULL, COALESCE)

Group Operations & Aggregate Functions

- Group By, Having clause
- COUNT, SUM, AVG, MIN, MAX, COUNT
- String functions
- Date & Time function

Constraints

- NOT NULL
- UNIQUE
- CHECK
- DEFAULT
- Primary key
- Foreign Key (Both at column level and table level)

Joins

- Inner
- Left
- Right
- Cross
- Self joins
- Full outer join

DDL

- Create
- Drop
- Alter
- Rename
- Truncate
- Modify
- Comment

DML & TCL Commands

- DML: Insert, Update, and Delete
- TCL: Commit, Rollback, Savepoint, and Data Partitioning

Indexes and Views

- Indexes (Different Type of Indexes) and Views in SQL

Stored Procedure

- Procedure with IN Parameter
- Procedure with OUT parameter
- Procedure with INOUT parameter

Function, Constructs

- User Defined Function
- Window Functions – Rank, Dense Rank, Lead, Lag, Row_number

Union, Intersect, Sub-query

- Union
- Union all
- Intersect
- Sub Queries
- Multiple Query

Exception Handling

- Handling exceptions in a query
- CONTINUE Handler
- EXIT handler

Exception Handling

- Triggers