Module 7 Theory

[reference : https://www.youtube.com/watch?v=O27jl60NvQc]

MySQL Workbench is a unified visual database designing or graphical user interface tool used for working with database architects, developers, and Database Administrators. It is developed and maintained by Oracle. It provides SQL development, data modeling, data migration, and comprehensive administration tools for server configuration, user administration, backup, and many more. We can use this Server Administration for creating new physical data models, E-R diagrams, and for SQL development (run queries, etc.). It is available for all major operating systems like Mac OS, Windows, and Linux. MySQL Workbench fully supports MySQL Server version v5.6 and higher.

- SQL Development: This functionality provides the capability to execute SQL queries, create and manage connections to the database Servers with the help of built-in SQL editor.
- Data Modelling (Design): This functionality provides the capability to create models of the database Schema graphically, performs reverse and forward engineering between a Schema and a live database, and edit all aspects of the database using the comprehensive Table editor for editing tables, columns, indexes, views, triggers, partitioning, etc.
- Server Administration: This functionality enables to administer MySQL Server instances by administering users, inspecting audit data, viewing database health, performing backup and recovery, and monitoring the performance of MySQL Server.
- Data Migration: This functionality allows you to migrate from Microsoft SQL Server, SQLite, Microsoft Access, PostgreSQL, Sybase ASE, SQL Anywhere, and other RDBMS tables, objects, and data to MySQL. It also supports migrating from the previous versions of MySQL to the latest releases.
- MySQL Enterprise Supports: This functionality gives the support for Enterprise products such as MySQL firewall, MySQL Enterprise Backup, and MySQL Audit.

MySQL Workbench is mainly available in three editions, which are given below:

- Community Edition: The Community Edition is an open-source and freely downloadable version of the most popular database system. It came under the GPL license and is supported by a huge community of developers.
- Standard Edition: It is the commercial edition that provides the capability to deliver high-performance and scalable Online Transaction Processing (OLTP) applications. It has made MySQL famous along with industrial-strength, performance, and reliability.
- Enterprise Edition: It is the commercial edition that includes a set of advanced features, management tools, and technical support to achieve the highest scalability, security, reliability, and uptime. This edition also reduces the risk, cost, complexity in the development, deployment, and managing MySQL applications.