**Introduction to Database Management System (DBMS)**

A Database Management System (DBMS) is software that enables users to create, manage, and manipulate databases. It provides an interface for users to interact with databases to store, retrieve, update, and delete data efficiently. Examples of DBMS include MySQL, PostgreSQL, Oracle Database, and Microsoft SQL Server.

**What is a Database?**

A database is an organized collection of data stored and accessed electronically. It consists of tables, which contain rows and columns, allowing for the systematic storage of information. Databases are used in various applications, from business operations to scientific research, to manage and store vast amounts of data.

**What is Data?**

Data refers to raw facts, figures, or statistics collected for reference or analysis. It can be anything from numbers and text to images and videos. Data is the fundamental unit of information, and when processed and analyzed, it becomes meaningful information.

**Why and How We Store Data**

Storing data is essential for preserving information, ensuring data integrity, and facilitating easy access and retrieval. Data storage can be done using various methods, such as:

* **Local Storage:** Storing data on local devices like hard drives or SSDs.
* **Cloud Storage:** Using online services to store data on remote servers, providing accessibility and scalability.
* **Databases:** Using DBMS to store and organize data efficiently, allowing for complex queries and analysis.

**Introduction to MySQL**

MySQL is an open-source relational database management system (RDBMS) widely used for web applications. It supports structured query language (SQL) for managing and manipulating data. MySQL is known for its reliability, performance, and ease of use, making it a popular choice for developers and organizations.

**Entering MySQL Using Command Line**

To enter MySQL using the command line:

1. **Open Command Line Interface (CLI):** Open the terminal or command prompt on your computer.
2. **Enter MySQL Command:** Type the following command and press Enter:

***mysql -u root -p***

 **Enter Password:** When prompted, enter your MySQL password and press Enter.

 **Access MySQL:** You will now be in the MySQL shell, where you can execute SQL commands.

**What is Information Schema?**

The information schema is a collection of views in a database that provides metadata about the database's structure. It includes details about tables, columns, data types, indexes, and other database objects. The information schema is essential for understanding and managing the database schema and is used by database administrators and developers for various tasks.