**MySQL:**

It is an open-source RDBMS.

It works with an operating system to implement a relational database in a computer’s storage

system, manages users, allows for network access, facilitates testing database integrity and

creation of backups.

It is used with other programs to implement applications that need relational database

capability.

It is also used by many popular websites including Facebook, Twitter, YouTube, etc.

**MySQL Database System:**

The key role of a DBMS is information management.

A database server is the key to solving the problems of information management.

A server reliably manages a large amount of data in a multi-user environment so that

many users can together access the same data.

MySQL database system is the combination of a MySQL server and a MySQL database.

**Architecture of MySQL:**

It describes the relation among different components of MySQL system.

MySQL operates using a client/server architecture in which the server runs on the machines

containing the database and clients connect to the server over a network.

The server OS is usually a Linux or Windows OS.

**Key Features of MySQL:**

**1)Speed:** If the server hardware is optimal, it runs very fast.

**2)Ease of use:** It is a high-performance, relatively simple database system.

**3)Cost:** It is available free of cost and an open-source database.

**4)Query Language Support:** It understands standards-based SQL.

**5)Portability:** It has been tested with a broad range of compilers and can work on

many different platforms.

**6)Data Types:** It provides many data types to support different types of data.

It also supports fixed-length and variable-length records.

**7)Security:** It offers a privilege and password system that is very flexible and secure and allows

host based verification.

**8)Scalability & Limits:** It can handle large database.

Some real life MySQL database contains 50milion records, 60,000

tables and about 5,000,000,000 rows.

**9)Connectivity:** Clients can connect to MySQL server using several protocols.

**10)Localization:** The server can provide error messages to clients in their languages.

**11)Clients & Tools:** It provides several client and utility programs.

These include both command-line programs and graphical programs.

MySQL server has built-in support SQL commands to check, optimize and

repair tables.