MySQL Introduction

**Introduction to Database**

**What is Database?**

* Storage system
* Organized collection of data – fact, string, number – in effective manner
* Relational database stores data as tables (Rows and Columns)
* Database management makes easy for retrieval, manage and update
* Indexing is done for finding data on fast manner

**Popular Databases**

* MySQL
* Oracle
* SQL Server
* PostgreSQL

NOSQL – not only SQL but other type of structure also

* MongoDB
* Cassandra

What is SQL?

It is a language used to interact between the storage system

* Structured Query Language
* Language to communicate with the database
* Originally developed by IBM later used by many
* Contains SQL commands

**Features of SQL**

* Easily access any data within database
* Fast in retrieving large volume of data
* Its versatile with all database systems from Oracle, MS-SQL Server, MySQL – it can be used in all databases
* Helps to manage database without lots of coding

**Applications of SQL**

* Create database – create, alter, delete, drop, update
* Define structure – it could be integer, string, binary
* Maintain existing database
* Powerful to enter, modify and extract data in database
* Client/Server language to connect front-end and back-end
* Protect database from unauthorized access

**What is a table?**

* A dimensional representation of data into rows and columns
* Contains a table name to identify
* Columns are called as Fields
* Rows are called as Records/Tuples