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Assignment No-1

Roll No-12

Title - Study of open source Relational Database - MySQL.

Objectives - To learn and understand open source relational database.

Outcomes - Students will be able to learn concept of relational database.

Hardware Requirement - Any CPU with pentium processor, 256 MB RAM, 1GB H.D.

Software Requirement - Ubuntu 14 OS, MySQL

Theory -
A database management system is a collection of interrelated data and set of programs to access those data. The collection of data, usuall refferes to as the database, contains info relevent to enterprices.

Database Applications -
Banking Transactions
Airlines
Universities - registration, grade.
Sales - Customers, products
Manufacturing - production, inventory, orders
Online Retailers - order tracking,

Data Model -
Relational Model
Entity - relational data model
Object - based data models
Semistructured data model.
Other older models -
Network model
Hierarchical model.
A database is a means of storing info in such a way that info can be retreived from it. In simple terms rel^n database is a sense that it is a collection of objects of same type.
RDMS is program that lets you create, update and administer relational database.
MySQL open source RDMS overview -
MySQL is a popular open source relational database management system choice for web-based applications. Developers, database administrators and DevOps team use MySQL to build and manage next generation web and cloud based applications.

Datatypes in MySQL -
It includes numeric type, date and time types and static types. Additionally, MySQL will map certain data types from other DBMSes to MySQL data types for easier protability.

Install MySQL on Ubuntu 14.04 -
step-1 - There are two ways to install mysql. To install MySQL this way, update the package index on your server and install the package will apt-get.

- Sudo apt-get update
- Sudo apt-get install mysql-server:

Step-2 - Configure MySQL - First, you'll want to run the included security script. This changes some of the less secure default options for things like remote root logins and sample users.

- sudo mysql_secure_installation

This will prompt for the root password you created in step one. You can press enter to accept defaults for all subsequent questions
Next, we'll initialize the MySQL data directory, which MySQL stores its data.

- mysql -version.

If you're using version erlier than 5.7.6 you should initialize the data directory by running mysql_install_db.

- sudo mysql_install db.

Step - 3 - Testing -

Regardless how you installed it, MySQL should have started running automatically.

To test this, check its status.

- service mysql status.

Step - 4 - Log in MySQL -

- sudo mysql -u root -p

You will be prompted for password. After log in you ~~can~~ can see mysql > prompt to execute queries.

Conclusion -

In this assignment, we have studied concept of relational databases, MySQL DBMS and steps to install MySQL on ubuntu O.S.