Name: Tejas. R. Machkar
RollNo: 23   PRN: FI8112025
— Batch: P

DBMS
~~Ent~~ Assignment - 1
GROUP A

• Questions:

Q1) What's RDBMS?

A.1) A DBMS comprises a collection of programs to access that data. The primary goal of DBMS is to provide a method to save and retrieve DB info that's both efficient and easy. RDMS is DBMS designed specifically for relational databases. The relational model uses a collection of tables too represent both data and relationships among those data. Each table has multiple columns and these columns have unique names. Tables are also known as relations. The storage of data in a structured format makes locating and accessing specific values easy as well.

    While a relational database describes type of a DB, and RDBMS manages. The RDBMS refers to the DB program itself. It's the software that executes queries on data, including adding, updating, searching, etc.

    eg. Oracle, DB, MySQL etc.

Q2) What's MySQL server?

A.2) MySQL server is a DBMS which can add, access and process data stored in a computer DB. MySQL DB server is a very fast, reliable, scalable and easy to use. It offers a rich and useful function set. MySQL server is a client/server system which comprises a multithreaded SQL server, that supports different backends, several different client server programs and libraries, administrative tools and a wide range of API's.

Q3) What are the features of MYSQL?

A.3) Clients and tools: MYSQL includes several client, and utility programs. These include both command-line programs such as MVSQL admin and graphical program such as MVSQL workbench.

> Connectivity:
i> Clients to connect to MYSQL server using TCP/TP sockets on any

platform.

ii) MYSQL client programs can be written in many languages. For this connectors and API's are available.

> Locations:

i) The server can provide error messages to clients in many languages.

ii) Full support for different character sets.

iii) The server time zone can be changed dynamically and individual clients can specify their own timezone.

> Internals and portability:

i) Written in C and C++.

ii) Works on many different platforms.

iii) Uses very fast B-tree disk tables with index compression.

iv) Uses very fast thread-based memory allocation system.

> Security:

i) A privelage and password system that is very flexible and secure which enables host-based verification.

ii) Password Security by encryption of all password traffic when connected to a server.

> Scalability and limits:

i) Support for large DB that contain 50 million records with 200000 tables and about 5000000000 rows.

ii) Support for upto 64 indices per table.

Q4) What's default port for MYSQL server?

A.4) The default port number is 3306.

Q5) List different datatypes in MYSQL?

A.5) i) Numeric datatypes:

    - INT , INTEGER

    - TINY INT, SMALLINT, BIGINT

    - FLOAT , DOUBLE , DECIMAL

    - BOOL , BOOLEAN

ii) Date and time types:
- DATE, DATETIME
- TIMESTAMP, TIME
- YEAR

iii) String types:
- CHAR, VARCHAR
- BLOB, TINYBLOB, MEDIUMBLOB, LONGBLOB or TEXT, TINYTEXT, MEDIUMTEXT, BIGTEXT
- ENUM, SET
- BINARY, VARBINARY

Q6) Explain DML, DDL. and DCL.

A.6) i) DML (Data Manipulation Language] : A DML is a language that enables users to access or manipulate data as organised by the appropriate data model. The types of accesses are:
i) Retrieval of information from DB.
ii) Insertion of information from DB.
iii) Deletion of information from DB.
iv) Modification of information stored in DB.
- Some commands are SELECT, UPDATE, INSERT, TRUNCATE, DELETE.

2) DDL (Data Definition Language): We can specify the DB schema by a set of definitions expressed by a specific language called a DDL.

3) DCL (Data Control language): A DCL is a language that is used for controlling privelege in the DB. It's used for granting and revoking user access on a DB.
- Commands : GRANT, REVOKE

Q7) Write a command to get list of DB and tables in MYSQL.

A.7) To get a list of DB's :   To get list of tables:
>> Show databases;   >> Show tables;