MES College of Engineering Pune-01

Department of Computer Engineering

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Semester/Year: 5 th /III	Roll No: 25
Date of Performance: 08/07/2019	Date of Submission: 18/07/19
Examined By:	Experiment No: Part A-01

GROUP: A ASSIGNMENT NO: 01

AIM: Study of Open Source Relational Databases: MySQL

OBJECTIVES:

- To develop basic, intermediate and advanced Database programming skills.
- To develop basic Database administration skill.

APPRATUS:

- Operating System recommended: 64-bit Open source Linux or its derivative
- SQL Database: MySql: 5.5.54

INSTALLATION STEP:

Step 1: Open terminal

Alt+Ctrl+t

Step 2: Update your system

sudo apt-get update

Step 3: Install MySQL

sudo apt-get install mysql-server

Step 4: Root Login

mysql -u root -p

Step 5: Create a New Database

create database mydatabase;

Step 6:Exit MySQL.

exit

For see the version use:mysql --version

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74.	Group A: Assignment No. 1.
of act	Aim: Study of Open Source Relational Databases: Mysol:
•	Questions:
toel.	What is Relational Database Management System?
→ /o	A database management system consists of a collection of interrelated data & a collection of programs to
Ytinin	access that data. The primary goal of DBMS is to = provide a method to save & retrieve database -
g* 1 a	information that is both efficient & easy:
	RDBMS (Relational Database Management System) is a DBMS designed specifically for relational
tegja	dutabases. The relational model uses a collection of tables - to represent both data and relationships among those
1000 TO 3	data. Each table has multiple columns & these columns have a unique name. Tables are also
Aure	structured formut makes locating easy & access
	specific values within the database. While a relational database describes type of
	the dotabase program itself. It's the software that
13.44	executes queries on the data, including adding, including & searching for values
	eg - Oracle Dotabase, Mysal, Microsoft Sal server & IBM DB2
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2.	What is Mysal server?
	MySQL Server is a database management system which can add, access & process data stored in a computer database. MySQL Database Server is a very fast, reliable, scalable & easy to use. It offers a rich and useful function set. MySQL server is a client/server system which consists of a multithreaded SQL Server that supports different backenes, several different client programs & libraries, administrative. tools and a wide range of APIs.
3)	What are features of MySQL?
T. P. (2)	Clients and Tools - to de
TAVIS.	Mysal includes several client and utility programs. These include both command-line-programs such as mysaldump and mysaladmin and graphical program such as Mysal Workbench.
	Connectivity: Clients can connect to MySQL Server using TCP/IP sockets on any platform.
i li	Mysal Client programs can be written in many languages For this, connectors & APIs for C, Ctt, Eiffel, Java, Perl, PHP, Python, Tcl & Ruby are
undaram 0	available FOR EDUCATIONAL USE

	Localization!
(1)	The server can provide error messages to clients in
- CALAST	mary languages.
ii)	Full support for different character sets.
1(1)	The Server time zone can be changed dynamically.
	The Server time zone can be changed dynamically, and individual clients can specify their own
	timezone
	Internals & Portability -
	Written in C & C++.
ii	Works on many different platforms.
(()	Uses yery fact B-Tree disk tubles with index compression-
iv	Uses very fast thread-based memory allocation system.
	Security:
()	A privilege & password system that is very flexible and secure which enables host-based verification.
	and secure which enables host-based verification
\hat{n}	Password security by encryption of all password traffic - when connected to a server.
of attraction	when connected to a server.
<u> </u>	
May 1	Scalability & Limits
(i)	Support for large database that contain 50 million-
/	Support for large database that contain 50 million- records with 200,000 tables. & about
	5,000,000,000 rows.
(ii	Support for upto 64 indexes per table.
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4.	What is default port for MySQL Server?	
Ans	The default port number is 3306. It is a TCP/IP port on which My SQL server is listening.	Act Constitution
	List different datatypes in MySQL.	S
Ans.	My SQL uses many different data types broken into three categories:	Sel carried and
i	Numeric Datatypes:	100
->	INT, INTEGER.	1
	TINYINT, SMALLINT, MEDIUMINT, BIGINT	
	FLOAT, DOUBLE, DECIMAL	
	BOOL , BOOLEAN.	1
	1	1
ii)	Date & Time Types.	
-11: 1>	DATE DATETIME.	
Pro>	TIMESTAMP, TIME	5
idan (→	YEAR	
\	China The Cold And American Association	
14)	String Types	-
→	CHAR, VARCHAR	
moilling A	BLOB, TINYBLOB, MEDIUMBLOB, LONGBLOB or	
	TEXT, TINYTEXT, MEDIUMTEXT, LONGTEXT	-]
\rightarrow	ENUM, SET,	-7
一 >	BINARY, VARBINARY.	-
		1 10 10
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6	Explain DML, DDL & DCL
	Salate and the world report sold in the salate of the sala
\rightarrow	DML (Data Manipulation Language):
	A data manipulation language (DM)
1.574	A data manipulation language (DML) is a language that enables users to access or manipulate data as organized by the appropriate data model. The types of accesses are: 1) Retrieval of information stored in database
	the appropriate data model The track
61.	i) Retrieval of information stored in database.
	ii) Insertion of new info into the dotabase.
1292	iii) Deletion of information from database.
	iv) Modification of information stored in the database =
1	The database
\$7	To read records from tuble(s) - SELECT
-	To insert records into table(s) - TNSERT
	Update data in table (5) UPDATE
100	Delete all records from table - TRUNCATE
= (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Delete a record from table DELETE
	DDL (Data Definition Language):
- Survey No.	We specify a database schema by a set of definitions = expressed by special language called a desta-definition language-
	expressed by special language called a dota-definition language.
2	-
	To create database instance - CREATE -
	To after structure of database - ALTER
	To drop database instance - DROP -
	To rename database instance - RENAME
	261 (0.1)
1	DCL (Data Control Larguage):
/	A data Control language (DCL) is a language that is — used for controlling privilege in the database. It is used—for granting & revoking user access on a database for EDUCATIONAL USE
	for granting & revoking user access on a database
aram	FOR EDUCATIONAL USE
1.5	Langer was some - 1 1500 160 cm - 1 1500 1600 1600 1600 1600 1600 1600 16

	To court access to used - CRANT William
	To grant access to user - GRANT To revoke access from user - REVOKE
1 - 1 2 - 2	Commercial and techniques Administration of the
tuit sees	In practical, data definition language, data
**	In practical, data definition language, data manipulation language and data control languages
1 3 to 1	are not seperate language rather they are
	are not seperate language rather they are parts of single database language such as SQL.
7.	Write down command to get list of databases,
ga kai	Write down command to get 11st of databases and tables in MySQ2.
→ >	To get list of destabases, the land
	PARAMETERS (2) Skot glove stands of warm of the
tan 17 or	>> show databases; and in both shall be
	STADUONI - SIGN WORLD IN THE MENT OF THE PARTY OF THE PAR
	To get list of tables in a database
13228	
· · · · · · · · · · · · · · · · · · ·	>> show databases; tubles;
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	Comment Tours of Dog State
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	Linkelik out in Specime willowhere you have
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