

TY B.Tech. (CSE) – II [2022-23]
5CS372 : Advanced Database System Lab.
Assignment No. 8

PRN: 2020BTECS00033

Name: Prathamesh Raje

Title: Distributed Database.

Aim: Implement MySQL distributed database.

Procedure:

Installation & configuration:

- 1. Getting the IPv4 address of both the machines**

Master:

```
C:\WINDOWS\system32>ipconfig

Windows IP Configuration

Wireless LAN adapter Local Area Connection* 14:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 15:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::4c77:66b0:25a0:da50%6
    IPv4 Address. . . . . : 10.40.12.163
    Subnet Mask . . . . . : 255.255.224.0
    Default Gateway . . . . . : 10.40.0.2

C:\WINDOWS\system32>
```

Slave:

```
Command Prompt
Microsoft Windows [Version 10.0.22621.1265]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Raje>ipconfig

Windows IP Configuration

Wireless LAN adapter Local Area Connection* 3:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 4:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::e4bb:135:6626:fb0d%10
    IPv4 Address. . . . . : 10.40.8.94
    Subnet Mask . . . . . : 255.255.224.0
    Default Gateway . . . . . : 10.40.0.2
```

2. Creating the slave node on given IP address on machine having the DB.
3. Granting all privileges to created user.
4. Granting replication privilege to created user.

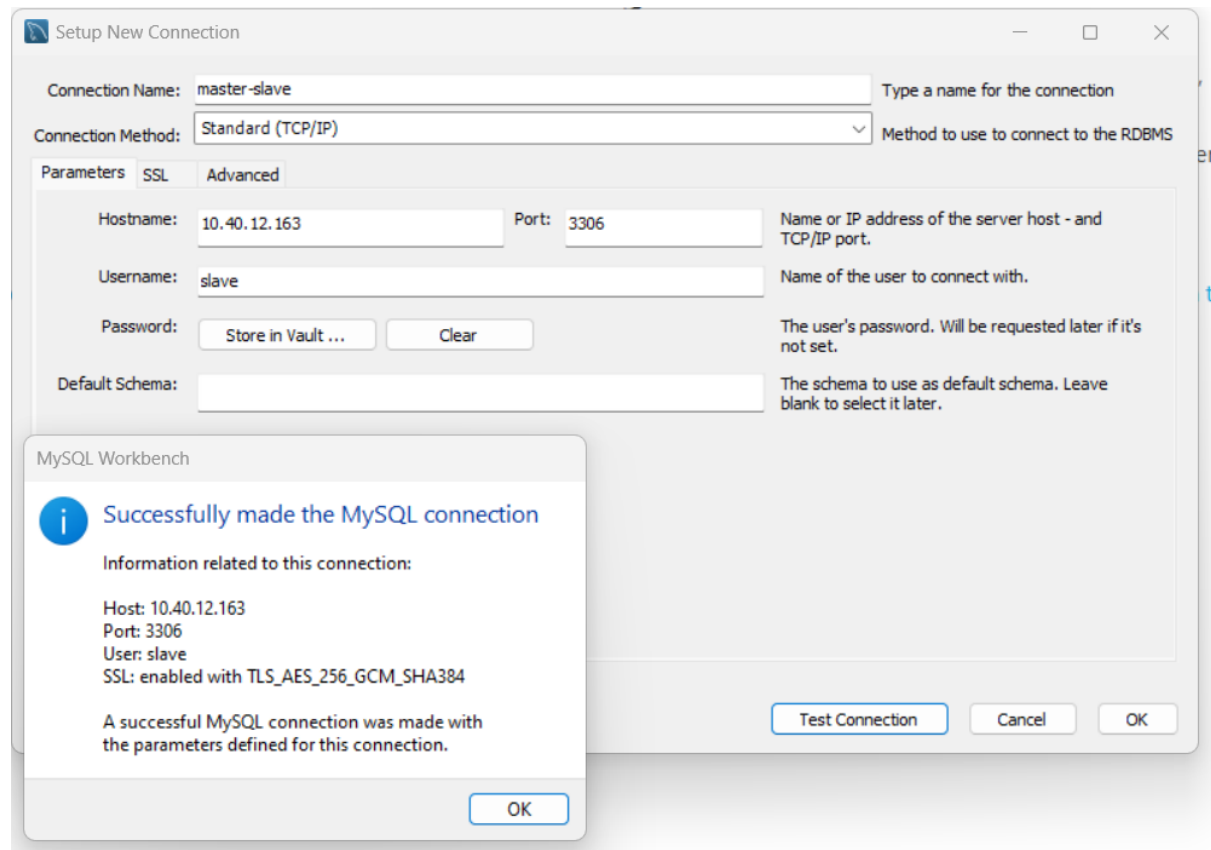
```
SQL File 3* x
Limit to 1000 rows

1 • use assignment08;
2
3 • CREATE TABLE myTable (
4     id integer,
5     name varchar(20),
6     prn integer
7 );
8
9 • create user 'slave'@'10.40.8.94' identified by 'slave';
10 • grant all privileges on assignment08.* to 'slave'@'10.40.8.94';
11 • grant replication slave on *.* to 'slave'@'10.40.8.94';
```

Output

#	Time	Action	Message
✓ 1	10:51:42	Apply changes to assignment08	Changes applied
✓ 2	10:53:01	use assignment08	0 row(s) affected
✓ 3	10:53:16	CREATE TABLE myTable (id integer, name varchar(20), pm integer)	0 row(s) affected
✓ 4	10:54:10	create user 'slave'@'10.40.8.94' identified by 'slave'	0 row(s) affected
✓ 5	10:54:16	grant all privileges on assignment08.* to 'slave'@'10.40.8.94'	0 row(s) affected
✓ 6	10:54:27	grant replication slave on *.* to 'slave'@'10.40.8.94'	0 row(s) affected

On Slave Machine:



This same procedure can be followed with other machines to connect different nodes on a network

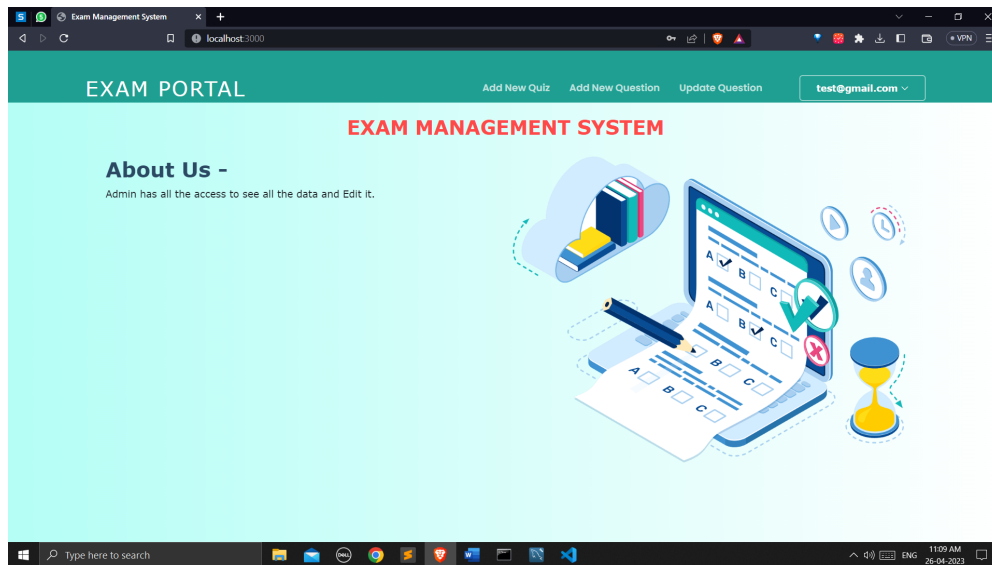
Using this database for Assignment no. 4:

As done above same permissions are given to slave machine by master machine for assignment4 schema.

```
8 • use assignment4;
9 • create user 'slave'@'10.40.8.94' identified by 'slave';
10 • grant all privileges on assignment4.* to 'slave'@'10.40.8.94';
11 • grant replication slave on *.* to 'slave'@'10.40.8.94';
```

Output			
Action Output			
#	Time	Action	Message
✓ 1	10:51:42	Apply changes to assignment08	Changes applied
✓ 2	10:53:01	use assignment08	0 row(s) affected
✓ 3	10:53:16	CREATE TABLE myTable (id integer, name varchar(20), pm integer)	0 row(s) affected
✓ 4	10:54:10	create user 'slave'@'10.40.8.94' identified by 'slave'	0 row(s) affected
✓ 5	10:54:16	grant all privileges on assignment08.* to 'slave'@'10.40.8.94'	0 row(s) affected
✓ 6	10:54:27	grant replication slave on *.* to 'slave'@'10.40.8.94'	0 row(s) affected
✓ 7	11:03:48	use assignment4	0 row(s) affected
✗ 8	11:03:53	create user 'slave'@'10.40.8.94' identified by 'slave'	Error Code: 1396. Operation CREATE USER failed for 'slave'@'10
✓ 9	11:04:11	grant all privileges on assignment4.* to 'slave'@'10.40.8.94'	0 row(s) affected
✓ 10	11:04:16	grant replication slave on *.* to 'slave'@'10.40.8.94'	0 row(s) affected

Home Page:



CRUD operations on DB:

1. On master user table before update by slave

The screenshot shows a database management tool interface with a 'Result Grid' displaying the contents of a 'user' table. The table has three columns: 'user_id', 'password', and 'type'. There are five rows of data, including a row with NULL values.

user_id	password	type
sahil@gmail	Sahil@123	faculty
student@gmail.com	Student@123	student
test@gmail.com	Test@123	faculty
test1@gmail.com	12345678	student
NULL	NULL	NULL

2. Inserting User from slave

The screenshot shows a database management tool interface with a 'Query 1' window containing SQL commands. Below the queries, the 'Output' window shows the 'Action Output' for each command, including timestamps, actions, and messages.

```
1 • use assignment4
2
3 ✖ insert into users
4 values ("prathameshraje23@gmail.com", "abc123", "student");
```

#	Time	Action	Message
✓ 1	11:08:35	SELECT * FROM assignment4.users LIMIT 0, 1000	4 row(s) returned
✖ 2	11:11:28	insert into users values ("prathameshraje23@gmail.com", "abc123", "student")	Error Code: 1046. No database s
✓ 3	11:11:44	use assignment4	0 row(s) affected
✓ 4	11:11:48	insert into users values ("prathameshraje23@gmail.com", "abc123", "student")	1 row(s) affected
✓ 5	11:12:19	SELECT * FROM assignment4.users LIMIT 0, 1000	5 row(s) returned

3. Viewing user inserted by slave on master machine

SQL File 3* questions quiz users x

Limit to 1000 rows

```
1 • SELECT * FROM assignment4.users;
```

Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:

	user_id	password	type
▶	prathameshraje23@gmail.com	abc123	student
	sahil@gmail	Sahil@123	faculty
	student@gmail.com	Student@123	student
	test@gmail.com	Test@123	faculty
	test1@gmail.com	12345678	student
*	NULL	NULL	NULL

4. Able to login user through UI

EXAM PORTAL student login Faculty login Register

Login As Student

E-mail
prathameshraje23@gmail.com

Password

Login

EXAM PORTAL Select Quiz prathameshraje23@gmail.com

EXAM MANAGEMENT SYSTEM

About Us -
Admin has all the access to see all the data and Edit it.