

CSE 560- Data Models and Query Languages

PA 0: Hello SQorLd

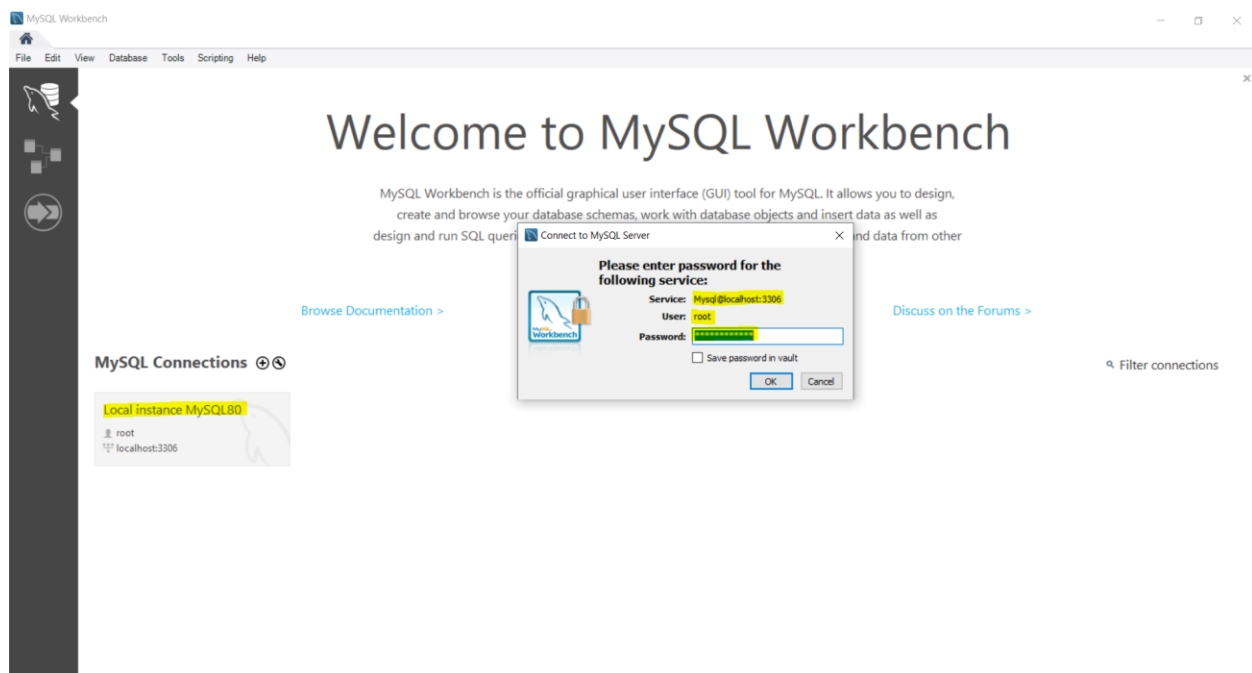
Name: Varsha Ravichandiran
UB IT Name: varshara
Person No: 50315099

Part 1 - Setting up MySQL Server/Client

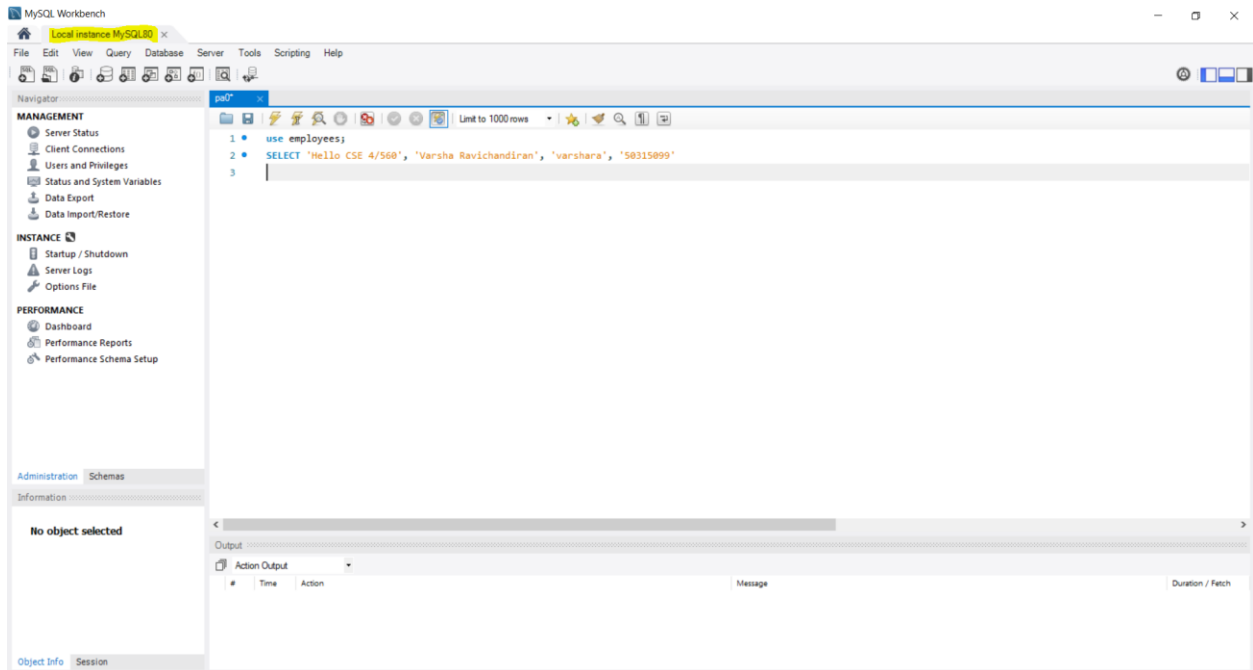
1. Goal:

The goal of this task is to install the MySQL Server/Client version 8.0.13 and test the connection from the workbench installed.

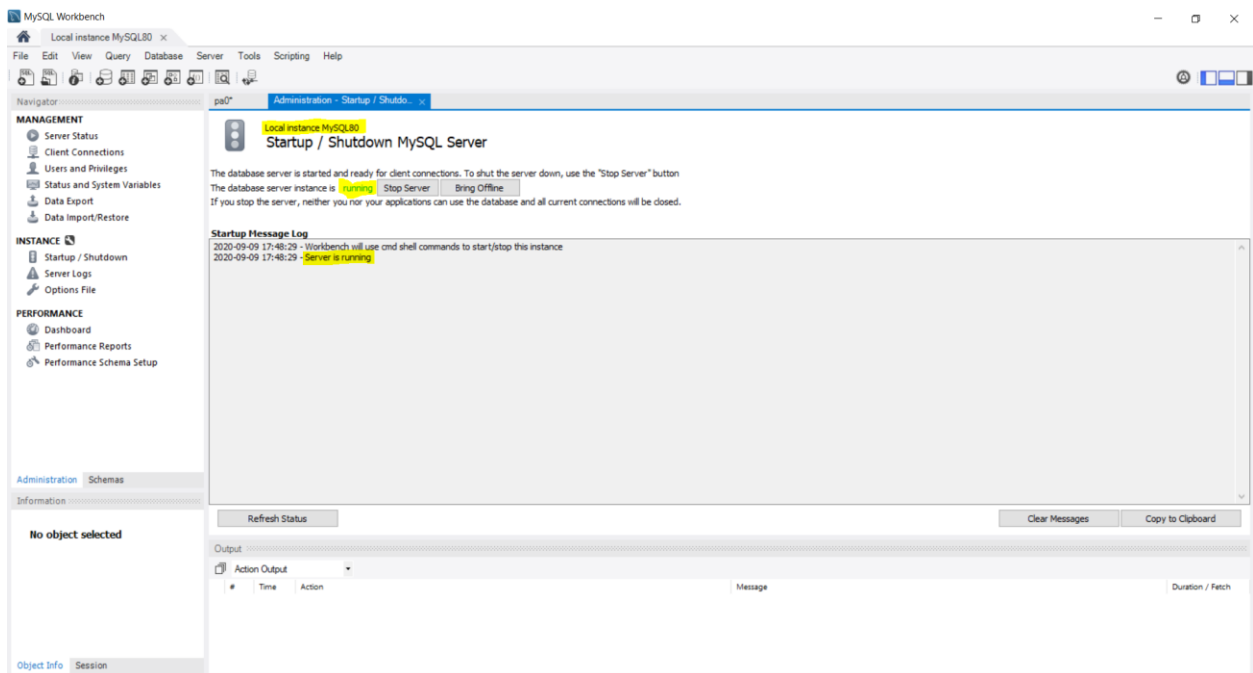
2. Screenshots:



The above screenshot represents the connection. After providing the corresponding username and password the client gets connected to the server. The highlighted portions in the screenshots represent the server instance, user and password.



The above screenshot represents the connection established and the user is now ready to query into the databases. The highlighted portion in the screenshot represent the current server instance.



The above screenshot represents the instances that are running currently in the server.

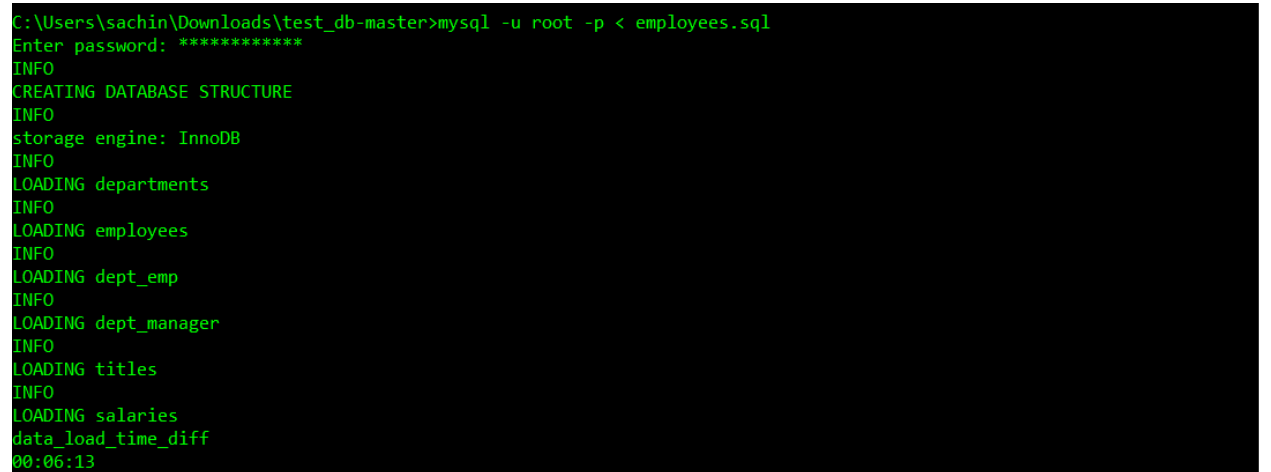
Part 2 - Setting up a database

1. Goal:

The goal of this task is to set up the databases in the Server to work on.

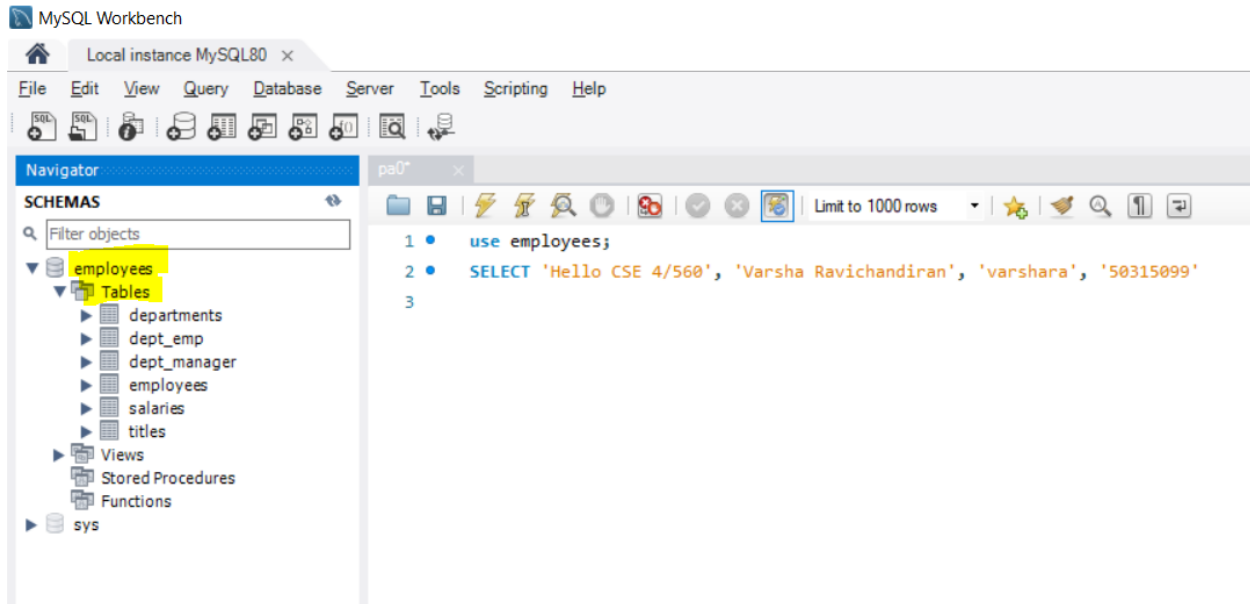
2. Screenshots:

A database is a collection of information that is organized so that it can be easily accessed, managed, and updated.



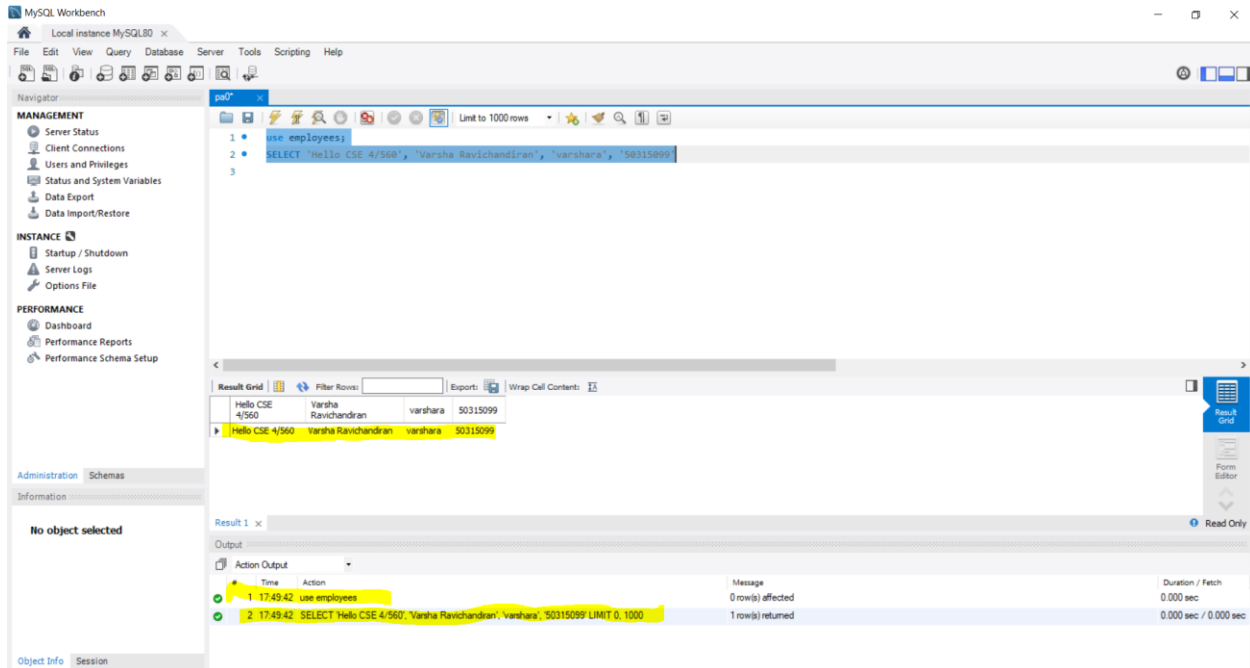
```
C:\Users\sachin\Downloads\test_db-master>mysql -u root -p < employees.sql
Enter password: *****
INFO
CREATING DATABASE STRUCTURE
INFO
storage engine: InnoDB
INFO
LOADING departments
INFO
LOADING employees
INFO
LOADING dept_emp
INFO
LOADING dept_manager
INFO
LOADING titles
INFO
LOADING salaries
data_load_time_diff
00:06:13
```

The above screenshot is the result of **step 3** from this part. The command **mysql -u root -p < employees.sql** is used to execute the employees.sql file. After execution, it created a database structure(schemas) and imported all the tables and their corresponding data to the mysql server. It also creates a storage engine. Storage engines are MySQL components that handle the SQL operations for different table types. InnoDB is the default and most general-purpose storage engine. The -u and -p in the command specifies the username and password. The below screenshot is the proof of database being created and loaded.



```
C:\Users\sachin\Downloads\test_db-master>mysql -u root -p < test_employees_md5.sql
Enter password: *****
INFO
TESTING INSTALLATION
table_name      expected_records  expected_crc
departments      9                d1af5e170d2d1591d776d5638d71fc5f
dept_emp        331603          ccf6fe516f990bdaa49713fc478701b7
dept_manager    24              8720e2f0853ac9096b689c14664f847e
employees       300024          4ec56ab5ba37218d187cf6ab09ce1aa1
salaries        2844047         fd220654e95aea1b169624ffe3fca934
titles 443308     bfa016c472df68e70a03facafa1bc0a8
table_name      found_records     found_crc
departments      9                d1af5e170d2d1591d776d5638d71fc5f
dept_emp        331603          ccf6fe516f990bdaa49713fc478701b7
dept_manager    24              8720e2f0853ac9096b689c14664f847e
employees       300024          4ec56ab5ba37218d187cf6ab09ce1aa1
salaries        2844047         fd220654e95aea1b169624ffe3fca934
titles 443308     bfa016c472df68e70a03facafa1bc0a8
table_name      records_match    crc_match
departments      OK              ok
dept_emp        OK              ok
dept_manager    OK              ok
employees       OK              ok
salaries        OK              ok
titles OK        ok
computation_time
00:06:30
summary result
CRC      OK
count    OK
```

The above screenshot is the result of **step 4** from this part. The command **mysql -u root -p < test_employees_md5.sql** (or **mysql -t < test_employees_md5.sql**) does validation on the imported schemas and the tables. The cmd line results produces the status of these validations. Validations like the count of tables, records of data etc in that particular database are checked. The -u and -p in the command specifies the username and password. -t in the command line produces the validation results in a tabulated format.



The above screenshot is the result of **step 5** from this part. The use database command is used to go to that particular database('employees'). The next command select is used to print the comma separated values as a table and the below screenshot represent the same.

The screenshot displays a database management interface. At the top, there is a 'Result Grid' section with a table containing one row of data. Below this, the 'Output' section is visible, showing a log of actions performed. The first action is 'use employees' at 17:49:42, which affected 0 rows. The second action is a SELECT query at 17:49:42, which returned 1 row.

	Result Grid	Filter Rows:	Export:	Wrap Cell Content:
	Hello CSE 4/560	Varsha Ravichandiran	varshara	50315099

#	Time	Action	Message
1	17:49:42	use employees	0 row(s) affected
2	17:49:42	SELECT 'Hello CSE 4/560', 'Varsha Ravichandiran', 'varshara', '50315099' LIMIT 0, 1000	1 row(s) returned

Conclusion:

I was able to successfully set up the MySQL Server/Client and I was able to learn the basics of MySQL and its basic commands.