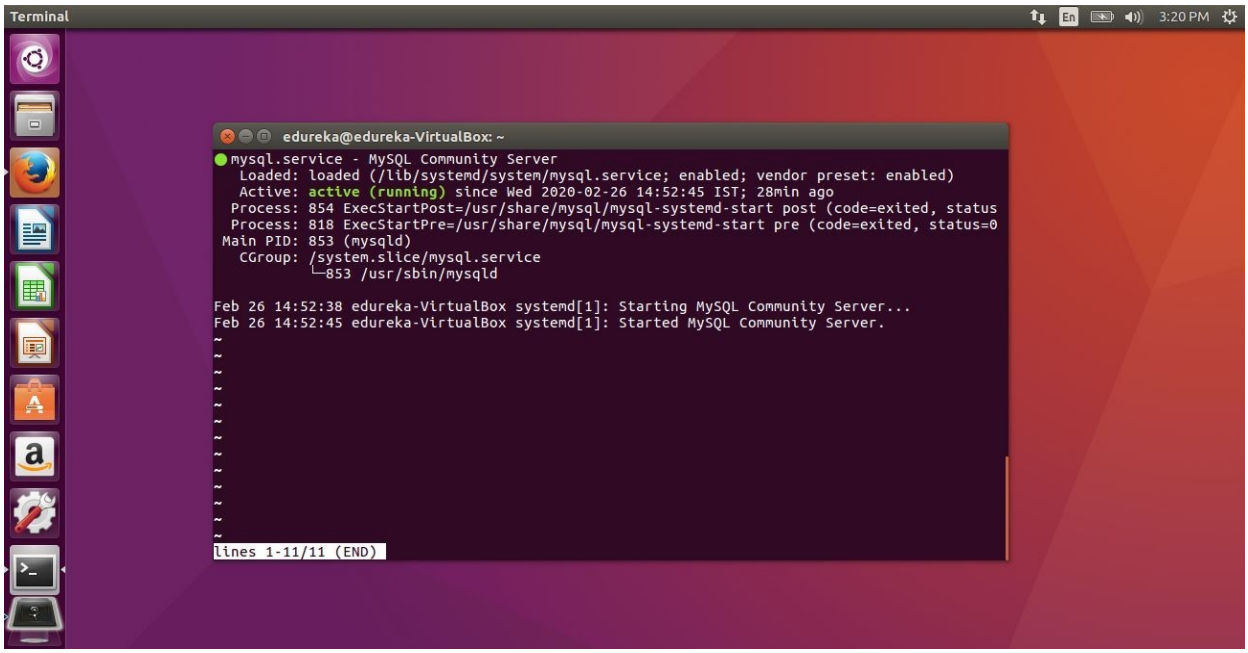
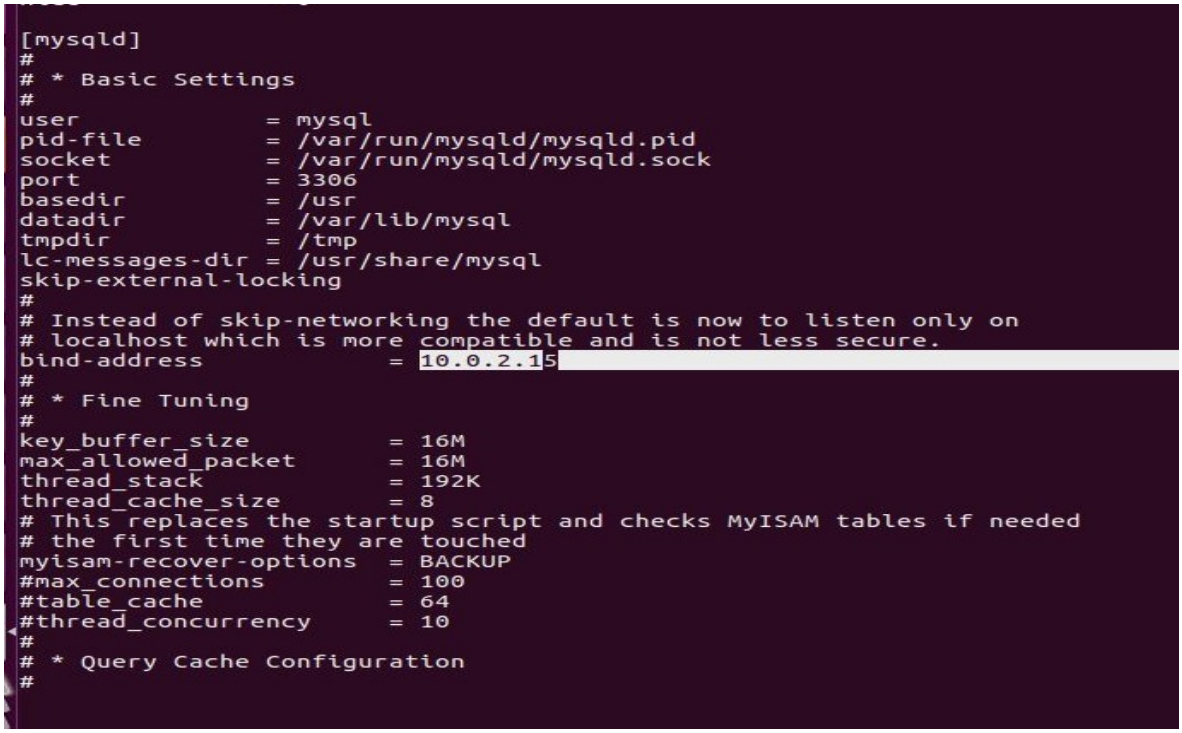
NAME-TUSHAR RAJ VERMA

1.) Follow Edureka VM Installation Guide & setup VM machine having MySQL installed.
Check connection to MySQL .
Configure MySQL to bind to Ip address of the host and connect to MySQL bound to host ip address (Instead of localhost).

Answer : Edureka VM Installation setup successfully done.





```
[mysqld]
#
# * Basic Settings
#
user            = mysql
pid-file        = /var/run/mysqld/mysqld.pid
socket          = /var/run/mysqld/mysqld.sock
port            = 3306
basedir         = /usr
datadir         = /var/lib/mysql
tmpdir          = /tmp
lc-messages-dir = /usr/share/mysql
skip-external-locking
#
# Instead of skip-networking the default is now to listen only on
# localhost which is more compatible and is not less secure.
bind-address            = 10.0.2.15
#
# * Fine Tuning
#
key_buffer_size         = 16M
max_allowed_packet      = 16M
thread_stack            = 192K
thread_cache_size       = 8
# This replaces the startup script and checks MyISAM tables if needed
# the first time they are touched
myisam-recover-options  = BACKUP
#max_connections        = 100
#table_cache            = 64
#thread_concurrency     = 10
#
# * Query Cache Configuration
#
```

2) Create Database, create table with [a column supporting autoincrement, acolumnforprimarykey,allothercolumnsnotallowingNULLvaluesanda column with a comment abouttable].

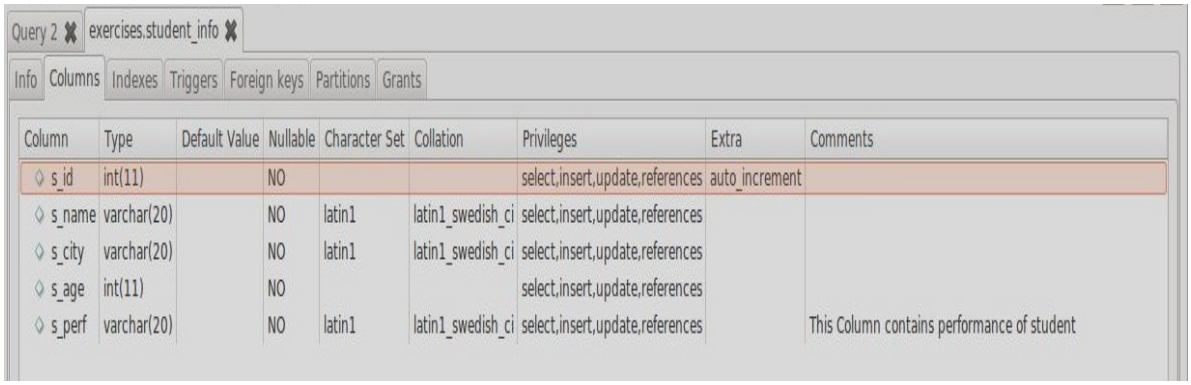
Grant access to this database to a specific Linux user identifiedbypassword andfromaspecifichost.

Answer:

```
mysql> CREATE DATABASE exercises;
Query OK, 1 row affected (0.00 sec)

mysql> USE exercises;
Database changed
mysql> CREATE TABLE student_info(
    -> s_id INT PRIMARY KEY AUTO_INCREMENT,
    -> s_name VARCHAR(20) NOT NULL,
    -> s_city VARCHAR(20) NOT NULL,
    -> s_age INT NOT NULL,
    -> s_perf VARCHAR(20) NOT NULL COMMENT 'This Column contains performance of student'
    -> );
Query OK, 0 rows affected (0.02 sec)

mysql> DESC student_info;
+--------+-------------+------+-----+---------+----------------+
| Field  | Type        | Null | Key | Default | Extra          |
+--------+-------------+------+-----+---------+----------------+
| s_id   | int(11)     | NO   | PRI | NULL    | auto_increment |
| s_name | varchar(20) | NO   |     | NULL    |                |
| s_city | varchar(20) | NO   |     | NULL    |                |
| s_age  | int(11)     | NO   |     | NULL    |                |
| s_perf | varchar(20) | NO   |     | NULL    |                |
+--------+-------------+------+-----+---------+----------------+
5 rows in set (0.00 sec)
```



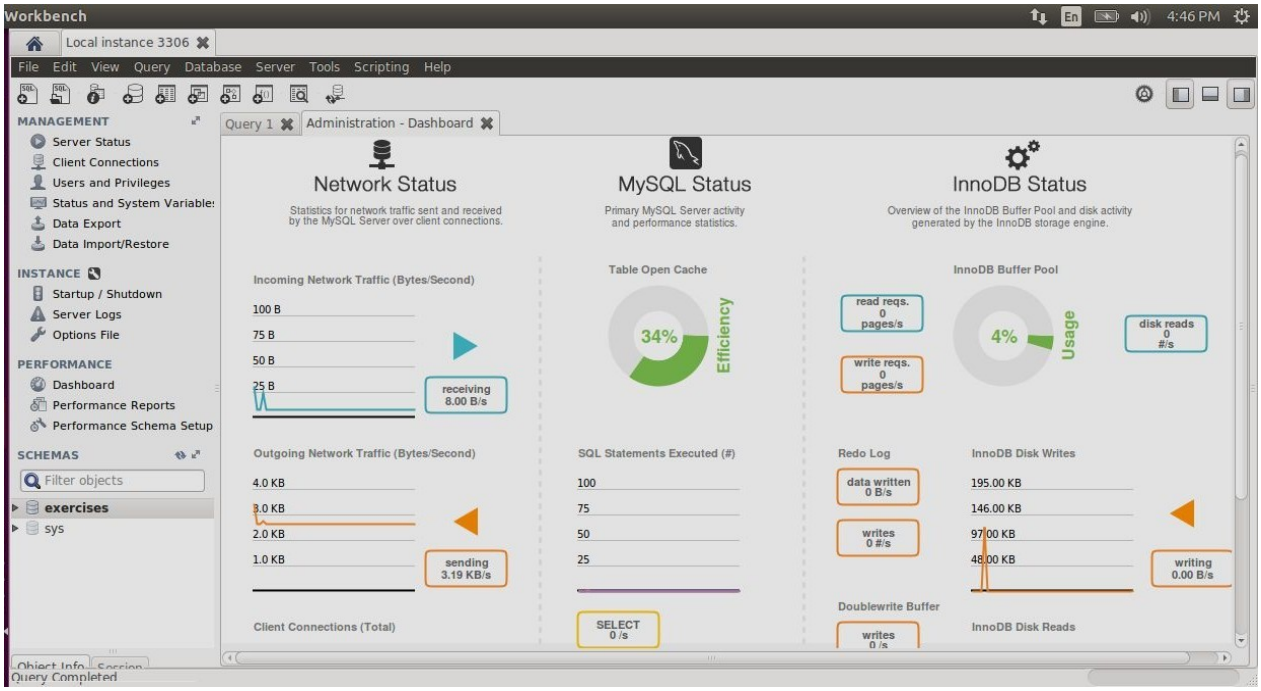

```
mysql> GRANT ALL PRIVILEGES ON exercises TO 'Edureka'@'%' IDENTIFIED BY 'edureka';
Query OK, 0 rows affected, 1 warning (0.04 sec)

mysql> SHOW GRANTS FOR 'Edureka';
+-----------------------------------------------------------------+
| Grants for Edureka@%                                            |
+-----------------------------------------------------------------+
| GRANT USAGE ON *.* TO 'Edureka'@'%'                             |
| GRANT ALL PRIVILEGES ON `exercises`.`exercises` TO 'Edureka'@'%' |
+-----------------------------------------------------------------+
2 rows in set (0.00 sec)

mysql>
```

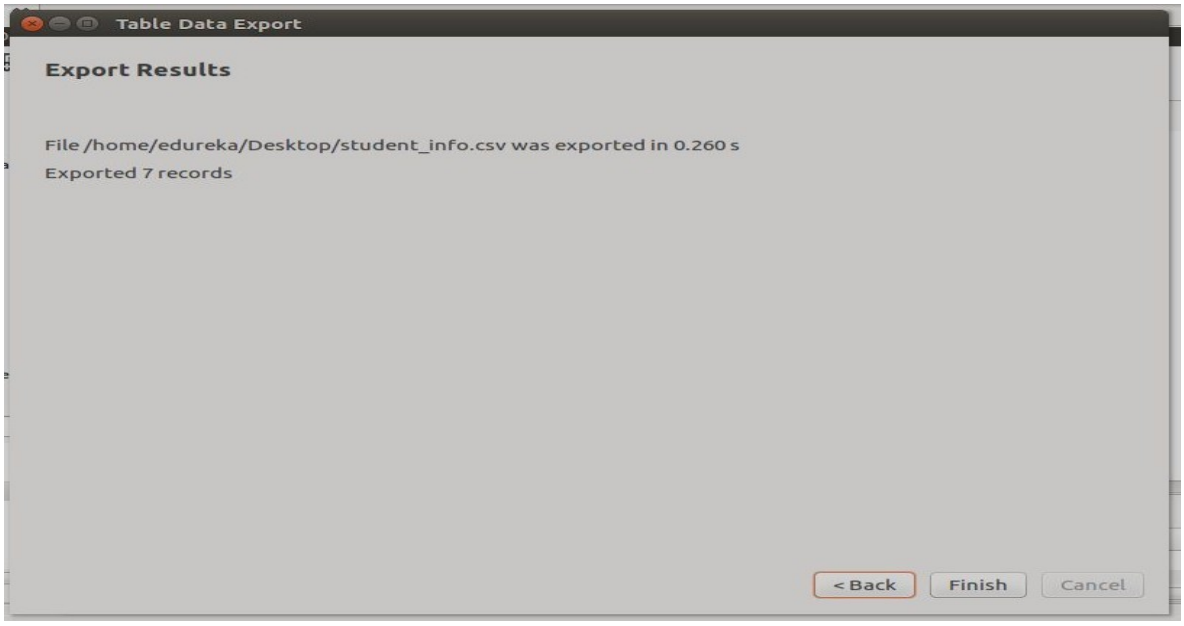
3) Setup MySQL Workbench and demonstrate usage of workbench to look at any 2-3 performance metrics

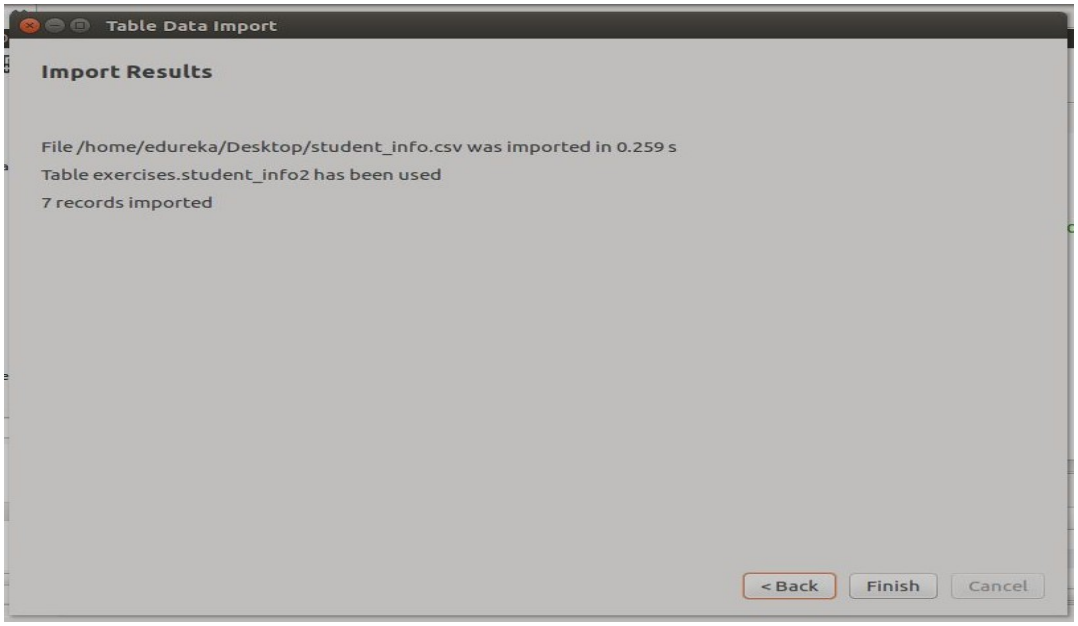
Answer :

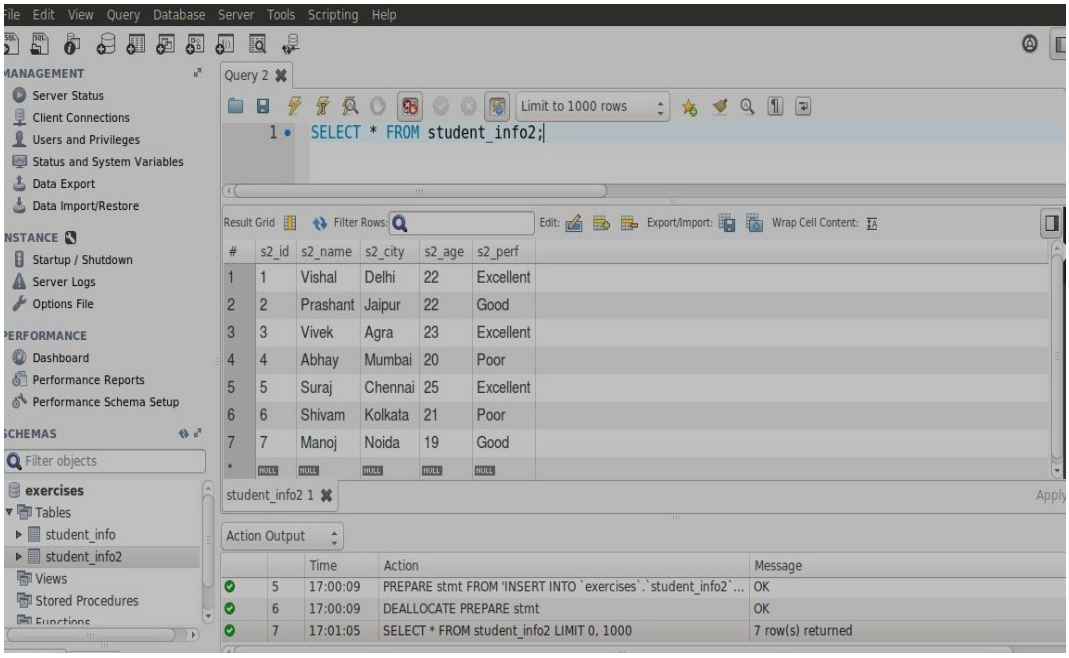


4) Export data from a table into csv file and use this file to load data into a new table created with same structure as table used for exporting data.

Answer :







5) Demonstrate usage of 2 string functions and 2 Aggregate functions while querying data from a table.

Answer :

<u>String Functions</u>

```
a@edureka-VirtualBox: ~

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use exercises;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> select REVERSE(s_name) from student_info;
+-----------------+
| REVERSE(s_name) |
+-----------------+
| lahsiV          |
| tnahsarP        |
| keviV           |
| yahbA           |
| jaruS           |
| mavihS          |
| jonaM           |
+-----------------+
7 rows in set (0.03 sec)

mysql> select CONCAT('HELLO',s_name) from student_info;
+------------------------+
| CONCAT('HELLO',s_name) |
+------------------------+
| HELLOVishal            |
| HELLOPrashant          |
| HELLOVivek             |
| HELLOAbhay             |
| HELLOSuraj             |
| HELLOShivam            |
| HELLOManoj             |
+------------------------+
7 rows in set (0.00 sec)

mysql>
```

Aggregate Functions

```
mysql> select MIN(s_age) from student_info;
+-------------+
| MIN(s_age) |
+-------------+
|          19 |
+-------------+
1 row in set (0.04 sec)

mysql> select AVG(s_age) from student_info;
+-------------+
| AVG(s_age) |
+-------------+
|    21.7143 |
+-------------+
1 row in set (0.01 sec)

mysql>
```