EXERCISE 4:

DATA QUERY LANGUAGE:

DQL is used to fetch the data from the database.

It uses only one command:

* SELECT

Program:

Enter password: \*\*\*\*\*\*\*\*

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 24

Server version: 5.5.62 MySQL Community Server (GPL)

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owners.

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

mysql> create database third;

Query OK, 1 row affected (0.00 sec)

mysql> show databases;

+--------------------+

| Database |

+--------------------+

| information\_schema |

| dbfirst |

| first |

| mysql |

| performance\_schema |

| second |

| test |

| third |

+--------------------+

8 rows in set (0.00 sec)

mysql> use third;

Database changed

mysql> create table info (roll int,name varchar(20),dept varchar(20),age int,location varchar(20),salary int);

Query OK, 0 rows affected (0.03 sec)

mysql> select\*from info;

Empty set (0.00 sec)

mysql> desc info;

+----------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------+-------------+------+-----+---------+-------+

| roll | int(11) | YES | | NULL | |

| name | varchar(20) | YES | | NULL | |

| dept | varchar(20) | YES | | NULL | |

| age | int(11) | YES | | NULL | |

| location | varchar(20) | YES | | NULL | |

| salary | int(11) | YES | | NULL | |

+----------+-------------+------+-----+---------+-------+

6 rows in set (0.01 sec)

mysql> insert into info (roll,name,dept,age,location,salary) values(1,'shalini','it',22,'chennai',20000),(2,'kavya','it',24,'mumbai',30000),(3,'mani','marketing',28,'pune',50000),(4,'ayeesha','administartion',25,'chennai',20000),(5,'shanvika','it',22,'chennai',30000),(6,'shanav','it',24,'delhi',50000);

Query OK, 6 rows affected (0.01 sec)

Records: 6 Duplicates: 0 Warnings: 0

mysql> select\*from info;

+------+----------+----------------+------+----------+--------+

| roll | name | dept | age | location | salary |

+------+----------+----------------+------+----------+--------+

| 1 | shalini | it | 22 | chennai | 20000 |

| 2 | kavya | it | 24 | mumbai | 30000 |

| 3 | mani | marketing | 28 | pune | 50000 |

| 4 | ayeesha | administartion | 25 | chennai | 20000 |

| 5 | shanvika | it | 22 | chennai | 30000 |

| 6 | shanav | it | 24 | delhi | 50000 |

+------+----------+----------------+------+----------+--------+

6 rows in set (0.00 sec)

mysql> select name,salary from info where age>20 and salary>=30000;

+----------+--------+

| name | salary |

+----------+--------+

| kavya | 30000 |

| mani | 50000 |

| shanvika | 30000 |

| shanav | 50000 |

+----------+--------+

4 rows in set (0.01 sec)

mysql> select name,location from info where dept='it' or age>22;

+----------+----------+

| name | location |

+----------+----------+

| shalini | chennai |

| kavya | mumbai |

| mani | pune |

| ayeesha | chennai |

| shanvika | chennai |

| shanav | delhi |

+----------+----------+

6 rows in set (0.00 sec)

mysql> select roll,avg(salary) from info where salary>10000 group by roll;

+------+-------------+

| roll | avg(salary) |

+------+-------------+

| 1 | 20000.0000 |

| 2 | 30000.0000 |

| 3 | 50000.0000 |

| 4 | 20000.0000 |

| 5 | 30000.0000 |

| 6 | 50000.0000 |

+------+-------------+

6 rows in set (0.00 sec)

mysql> select name,location,age,salary from info order by roll asc;

+----------+----------+------+--------+

| name | location | age | salary |

+----------+----------+------+--------+

| shalini | chennai | 22 | 20000 |

| kavya | mumbai | 24 | 30000 |

| mani | pune | 28 | 50000 |

| ayeesha | chennai | 25 | 20000 |

| shanvika | chennai | 22 | 30000 |

| shanav | delhi | 24 | 50000 |

+----------+----------+------+--------+

6 rows in set (0.00 sec)

mysql> select roll,sum(age) from info where salary>20000;

+------+----------+

| roll | sum(age) |

+------+----------+

| 2 | 98 |

+------+----------+

1 row in set (0.00 sec)

mysql> select roll,sum(age) from info order by roll desc;

+------+----------+

| roll | sum(age) |

+------+----------+

| 1 | 145 |

+------+----------+

1 row in set (0.00 sec)

mysql> select roll,age,salary,name,location from info order by roll desc;

+------+------+--------+----------+----------+

| roll | age | salary | name | location |

+------+------+--------+----------+----------+

| 6 | 24 | 50000 | shanav | delhi |

| 5 | 22 | 30000 | shanvika | chennai |

| 4 | 25 | 20000 | ayeesha | chennai |

| 3 | 28 | 50000 | mani | pune |

| 2 | 24 | 30000 | kavya | mumbai |

| 1 | 22 | 20000 | shalini | chennai |

+------+------+--------+----------+----------+

6 rows in set (0.00 sec)

mysql> select roll,max(salary) from info group by roll having max(salary)>30000;

+------+-------------+

| roll | max(salary) |

+------+-------------+

| 3 | 50000 |

| 6 | 50000 |

+------+-------------+

2 rows in set (0.00 sec)

mysql> select\*from info order by rand() limit 2;

+------+----------+------+------+----------+--------+

| roll | name | dept | age | location | salary |

+------+----------+------+------+----------+--------+

| 5 | shanvika | it | 22 | chennai | 30000 |

| 2 | kavya | it | 24 | mumbai | 30000 |

+------+----------+------+------+----------+--------+

2 rows in set (0.01 sec)

mysql> select top 2 name,dept,location from info;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '2 name,dept,location from info' at line 1

mysql> select top 1 name,dept,location from info;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '1 name,dept,location from info' at line 1

mysql> select top 3 name,dept,location from info;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '3 name,dept,location from info' at line 1

mysql> select\*from info;

+------+----------+----------------+------+----------+--------+

| roll | name | dept | age | location | salary |

+------+----------+----------------+------+----------+--------+

| 1 | shalini | it | 22 | chennai | 20000 |

| 2 | kavya | it | 24 | mumbai | 30000 |

| 3 | mani | marketing | 28 | pune | 50000 |

| 4 | ayeesha | administartion | 25 | chennai | 20000 |

| 5 | shanvika | it | 22 | chennai | 30000 |

| 6 | shanav | it | 24 | delhi | 50000 |

+------+----------+----------------+------+----------+--------+

6 rows in set (0.00 sec)

mysql> select top 4 name,age,salary from info;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '4 name,age,salary from info' at line 1

mysql> select top 4\*from info;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '4\*from info' at line 1

mysql> select \*from info where name in(mani,shanav);

ERROR 1054 (42S22): Unknown column 'mani' in 'where clause'

mysql> select \*from info where name in('mani','shanav');

+------+--------+-----------+------+----------+--------+

| roll | name | dept | age | location | salary |

+------+--------+-----------+------+----------+--------+

| 3 | mani | marketing | 28 | pune | 50000 |

| 6 | shanav | it | 24 | delhi | 50000 |

+------+--------+-----------+------+----------+--------+

2 rows in set (0.00 sec)

mysql> select top '4\*from info';

ERROR 1054 (42S22): Unknown column 'top' in 'field list'

mysql> select top 4 \* from info;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '4 \* from info' at line 1

mysql> select unique dept from info;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'unique dept from info' at line 1

mysql> select unique 'dept' from info;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'unique 'dept' from info' at line 1

mysql> select distinct location fom info;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'info' at line 1

mysql> select distinct location fom 'info';

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near ''info'' at line 1

mysql> select roll as 'id',dept as 'domain',age,location,salary from info;

+------+----------------+------+----------+--------+

| id | domain | age | location | salary |

+------+----------------+------+----------+--------+

| 1 | it | 22 | chennai | 20000 |

| 2 | it | 24 | mumbai | 30000 |

| 3 | marketing | 28 | pune | 50000 |

| 4 | administartion | 25 | chennai | 20000 |

| 5 | it | 22 | chennai | 30000 |

| 6 | it | 24 | delhi | 50000 |

+------+----------------+------+----------+--------+

6 rows in set (0.00 sec)

mysql> select count(\*) from location;

ERROR 1146 (42S02): Table 'third.location' doesn't exist

mysql> select count(\*) from salary;

ERROR 1146 (42S02): Table 'third.salary' doesn't exist

mysql> select count(\*) from info;

+----------+

| count(\*) |

+----------+

| 6 |

+----------+

1 row in set (0.00 sec)

mysql> select count(\*) from info where location='chennai';

+----------+

| count(\*) |

+----------+

| 3 |

+----------+

1 row in set (0.00 sec)

mysql> select DISTINCT age from info;

+------+

| age |

+------+

| 22 |

| 24 |

| 28 |

| 25 |

+------+

4 rows in set (0.00 sec)

mysql> select Top 2 \* from info;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '2 \* from info' at line 1

mysql> select TOP 2 name,age FROM info;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '2 name,age FROM info' at line 1

mysql> SELECT TOP2 name,age FROM info;

ERROR 1054 (42S22): Unknown column 'TOP2' in 'field list'

mysql> SELECT TOP 2 name,age FROM info;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '2 name,age FROM info' at line 1

mysql> select \* from info FETCH FIRST THREE ROW ONLY;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'FETCH FIRST THREE ROW ONLY' at line 1

mysql> select salary from info where salary between 25000 and 40000;

+--------+

| salary |

+--------+

| 30000 |

| 30000 |

+--------+

2 rows in set (0.00 sec)

mysql> select min(age) from info;

+----------+

| min(age) |

+----------+

| 22 |

+----------+

1 row in set (0.00 sec)