

## **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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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,'sha  
nvika','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     |
| ayesha  | 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 |
| ayesha  | 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 | ayesha | 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  | ayesha | 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)

```