



CSE 370: Database Systems

Lab No - 01

Submitted by

Habibun Nabi Hemel

Section - 08

ID - 22241042

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Task 1

Before Creating The Database

```
MariaDB [(none)]> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| phpmyadmin |
| test |
+-----+
5 rows in set (0.001 sec)
```

After Creating The Database

```
MariaDB [(none)]> CREATE Database assignment_one;
Query OK, 1 row affected (0.000 sec)

MariaDB [(none)]> show databases;
+-----+
| Database |
+-----+
| assignment_one |
| information_schema |
| mysql |
| performance_schema |
| phpmyadmin |
| test |
+-----+
6 rows in set (0.001 sec)
```

```

MariaDB [(none)]> SELECT assignment_one;
ERROR 1054 (42S22): Unknown column 'assignment_one' in 'field list'
MariaDB [(none)]> USE assignment_one;
Database changed
MariaDB [assignment_one]> CREATE TABLE Developers(
  -> member_id INT,
  -> name VARCHAR(30),
  -> email VARCHAR(40),
  -> influence_count INT,
  -> Joining_date DATE,
  -> multiplier INT);
Query OK, 0 rows affected (0.014 sec)

MariaDB [assignment_one]> SHOW TABLES;
+-----+
| Tables_in_assignment_one |
+-----+
| Developers                |
+-----+
1 row in set (0.001 sec)

```

After Creating Table Called Developers

Adding Values to Database Table

```

MariaDB [assignment_one]> INSERT INTO Developers VALUES
  -> (1,'Taylor Otwell','otwell@laravel.com',739360,'2020-06-10',10),
  -> (2,'Ryan Dahl','ryan@nodejs.org',633632,'2020-04-22',10),
  -> (3,'Brendan Eich','eich@javascript.com',939570,'2020-05-07',8),
  -> (5,'Evan You','you@vuejs.org',982630,'2020-06-11',7),
  -> (6,'Rasmus Lerdorf','lerdorf@php.net',937927,'2020-06-03',8),
  -> (7,'Guido van Rossum','guido@python.org',968827,'2020-07-18',19),
  -> (8,'Adrian Holovaty','adrian@django.org',570724,'2020-05-07',5),
  -> (9,'Simon Willison','simon@django.org',864615,'2020-04-30',4),
  -> (10,'James Gosling','james@java.com',719491,'2020-05-18',5),
  -> (11,'Rod Johnson','rod@spring.io',601744,'2020-05-18',7),
  -> (12,'Satoshi Nakamoto','nakamoto@blockchain.com',630488,'2020-05-10',10);
Query OK, 11 rows affected (0.012 sec)
Records: 11  Duplicates: 0  Warnings: 0

MariaDB [assignment_one]> SELECT * FROM Developers;
+-----+-----+-----+-----+-----+-----+
| member_id | name          | email                  | influence_count | Joining_date | multiplier |
+-----+-----+-----+-----+-----+-----+
| 1 | Taylor Otwell | otwell@laravel.com    | 739360          | 2020-06-10   | 10         |
| 2 | Ryan Dahl    | ryan@nodejs.org       | 633632          | 2020-04-22   | 10         |
| 3 | Brendan Eich | eich@javascript.com   | 939570          | 2020-05-07   | 8          |
| 5 | Evan You     | you@vuejs.org         | 982630          | 2020-06-11   | 7          |
| 6 | Rasmus Lerdorf | lerdorf@php.net      | 937927          | 2020-06-03   | 8          |
| 7 | Guido van Rossum | guido@python.org     | 968827          | 2020-07-18   | 19         |
| 8 | Adrian Holovaty | adrian@django.org    | 570724          | 2020-05-07   | 5          |
| 9 | Simon Willison | simon@django.org     | 864615          | 2020-04-30   | 4          |
| 10 | James Gosling | james@java.com        | 719491          | 2020-05-18   | 5          |
| 11 | Rod Johnson   | rod@spring.io        | 601744          | 2020-05-18   | 7          |
| 12 | Satoshi Nakamoto | nakamoto@blockchain.com | 630488          | 2020-05-10   | 10         |
+-----+-----+-----+-----+-----+-----+
11 rows in set (0.001 sec)

```

Task 2

```

MariaDB [assignment_one]> ALTER TABLE Developers CHANGE COLUMN influence_count followers INT;
Query OK, 0 rows affected (0.010 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [assignment_one]> SELECT * FROM Developers;
+-----+-----+-----+-----+-----+-----+
| member_id | name       | email                | followers | Joining_date | multiplier |
+-----+-----+-----+-----+-----+-----+
| 1 | Taylor Otwell | otwell@laravel.com   | 739360 | 2020-06-10 | 10 |
| 2 | Ryan Dahl     | ryan@nodejs.org      | 633632 | 2020-04-22 | 10 |
| 3 | Brendan Eich | eich@javascript.com  | 939570 | 2020-05-07 | 8 |
| 5 | Evan You     | you@vuejs.org        | 982630 | 2020-06-11 | 7 |
| 6 | Rasmus Lerdorf | lerdorf@php.net      | 937927 | 2020-06-03 | 8 |
| 7 | Guido van Rossum | guido@python.org    | 968827 | 2020-07-18 | 19 |
| 8 | Adrian Holovaty | adrian@django.org    | 570724 | 2020-05-07 | 5 |
| 9 | Simon Willison | simon@django.org     | 864615 | 2020-04-30 | 4 |
| 10 | James Gosling | james@java.com       | 719491 | 2020-05-18 | 5 |
| 11 | Rod Johnson   | rod@spring.io        | 601744 | 2020-05-18 | 7 |
| 12 | Satoshi Nakamoto | nakamoto@blockchain.com | 630488 | 2020-05-10 | 10 |
+-----+-----+-----+-----+-----+-----+
11 rows in set (0.001 sec)

```

Task 3

```

MariaDB [assignment_one]> UPDATE Developers SET followers = followers+10;
Query OK, 11 rows affected (0.007 sec)
Rows matched: 11 Changed: 11 Warnings: 0

MariaDB [assignment_one]> SELECT * FROM Developers;
+-----+-----+-----+-----+-----+-----+
| member_id | name       | email                | followers | Joining_date | multiplier |
+-----+-----+-----+-----+-----+-----+
| 1 | Taylor Otwell | otwell@laravel.com   | 739370 | 2020-06-10 | 10 |
| 2 | Ryan Dahl     | ryan@nodejs.org      | 633642 | 2020-04-22 | 10 |
| 3 | Brendan Eich | eich@javascript.com  | 939580 | 2020-05-07 | 8 |
| 5 | Evan You     | you@vuejs.org        | 982640 | 2020-06-11 | 7 |
| 6 | Rasmus Lerdorf | lerdorf@php.net      | 937937 | 2020-06-03 | 8 |
| 7 | Guido van Rossum | guido@python.org    | 968837 | 2020-07-18 | 19 |
| 8 | Adrian Holovaty | adrian@django.org    | 570734 | 2020-05-07 | 5 |
| 9 | Simon Willison | simon@django.org     | 864625 | 2020-04-30 | 4 |
| 10 | James Gosling | james@java.com       | 719501 | 2020-05-18 | 5 |
| 11 | Rod Johnson   | rod@spring.io        | 601754 | 2020-05-18 | 7 |
| 12 | Satoshi Nakamoto | nakamoto@blockchain.com | 630498 | 2020-05-10 | 10 |
+-----+-----+-----+-----+-----+-----+
11 rows in set (0.001 sec)

```

Task 4

```

MariaDB [assignment_one]> SELECT name, ((followers + 100 / 1000000) * (multiplier + 100 / 20)) /
100 AS Efficiency FROM Developers;
+-----+-----+
| name          | Efficiency |
+-----+-----+
| Taylor Otwell | 36.968500000000 |
| Ryan Dahl     | 31.682100000000 |
| Brendan Eich  | 37.583200000000 |
| Evan You      | 34.392400000000 |
| Rasmus Lerdorf | 37.517480000000 |
| Guido van Rossum | 92.039515000000 |
| Adrian Holovaty | 14.268350000000 |
| Simon Willison | 17.292500000000 |
| James Gosling  | 17.987525000000 |
| Rod Johnson    | 21.061390000000 |
| Satoshi Nakamoto | 31.524900000000 |
+-----+-----+
11 rows in set (0.001 sec)

```

Task 5

```

MariaDB [assignment_one]> SELECT name,email FROM Developers ORDER BY followers DESC LIMIT 5;
+-----+-----+
| name          | email      |
+-----+-----+
| Evan You      | you@vuejs.org |
| Guido van Rossum | guido@python.org |
| Brendan Eich  | eich@javascript.com |
| Rasmus Lerdorf | lerdorf@php.net |
| Simon Willison | simon@django.org |
+-----+-----+
5 rows in set (0.008 sec)

```

Task 6

```

MariaDB [assignment_one]> SELECT name
-> FROM Developers
-> WHERE followers < 700000
-> AND multiplier = (SELECT MAX(multiplier) FROM Developers WHERE followers < 700000);
+-----+
| name          |
+-----+
| Ryan Dahl     |
| Satoshi Nakamoto |
+-----+
2 rows in set (0.001 sec)

```

Task 7

```
MariaDB [assignment_one]> SELECT AVG(followers) AS average_followers
-> FROM Developers
-> WHERE joining_date < '2020-06-11';
+-----+
| average_followers |
+-----+
|          737515.6667 |
+-----+
1 row in set (0.001 sec)
```

Task 8

```
MariaDB [assignment_one]> SELECT member_id, name, email, followers
-> FROM Developers
-> WHERE email LIKE '%.com' OR email LIKE '%.net';
+-----+-----+-----+-----+
| member_id | name           | email                               | followers |
+-----+-----+-----+-----+
| 1         | Taylor Otwell  | otwell@laravel.com                | 739370    |
| 3         | Brendan Eich   | eich@javascript.com                | 939580    |
| 6         | Rasmus Lerdorf | lerdorf@php.net                    | 937937    |
| 8         | Adrian Holovaty | adrian@django project.com         | 570734    |
| 9         | Simon Willison | simon@django project.com          | 864625    |
| 10        | James Gosling  | james@java.com                     | 719501    |
| 12        | Satoshi Nakamoto | nakamoto@blockchain.com          | 630498    |
+-----+-----+-----+-----+
7 rows in set (0.001 sec)
```