

CSE 370
Lab Assignment - 1

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Section : 3

1. Create the above table with appropriate data type for each column.

Ans -

Query : create table Developers(

member_id int,

name varchar(20),

email varchar(40),

influence_count int,

joining_date date,

multiplier int

);

```
MariaDB [(none)]> use pulak23241078;
Database changed
MariaDB [pulak23241078]> create table Developers(
  -> member_id int,
  -> name varchar(20),
  -> email varchar(40),
  -> influence_count int,
  -> joining_date date,
  -> multiplier int
  -> );
Query OK, 0 rows affected (0.022 sec)
```

Query : show tables;

```
MariaDB [pulak23241078]> show tables;
+-----+
| Tables_in_pulak23241078 |
+-----+
| developers                |
+-----+
1 row in set (0.001 sec)
```

Query : describe developers;

```
MariaDB [pulak23241078]> describe developers;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| member_id      | int(11)       | YES  |     | NULL    |       |
| name           | varchar(20)   | YES  |     | NULL    |       |
| email          | varchar(40)   | YES  |     | NULL    |       |
| influence_count | int(11)       | YES  |     | NULL    |       |
| joining_date   | date          | YES  |     | NULL    |       |
| multiplier     | int(11)       | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.021 sec)
```

Query :

Insert into developers values(1,'Taylor Otwell','otwell@laravel.com',739360,'2020-6-10',10);

Insert into developers values(2,'Ryan Dahi','ryan@nodejs.org',633632,'2020-04-22',10);

Insert into developers values(3,'Brendan Eich','eich@javascript.com',939570,'2020-05-07',8);

Insert into developers values(5,'Evan You','you@vuejs.org',982630,'2020-06-11',7);

Insert into developers values(6,'Rasmus Lerdorf','lerdorf@php.net',937927,'2020-06-3',8);

Insert into developers values(7,'Guido van Rossum','guido@python.org',968827,'2020-07-18',19);

Insert into developers values(8,'Adrian
Holovaty','adrian@djangoproject.com',570724,'2020-05-07',5);

```
Insert into developers values(9,'Simon
Willison','simon@djangoproject.com',864615,'2020-04-30',4);
```

```
Insert into developers values(10,'James Gosling','james@java.com',719491,'2020-05-18',5);
```

```
Insert into developers values(11,'Rod Johnson','rod@spring.io',601744,'2020-05-18',7);
```

```
Insert into developers values(12,'Satoshi
Nakamoto','nakamoto@blockchain.com',630488,'2020-05-10',10);
```

```
MariaDB [pulak23241078]> Insert into developers values(1,'Taylor Otwell','otwell@laravel.com',739360,'2020-06-10',10);
ERROR 2006 (HY000): MySQL server has gone away
No connection. Trying to reconnect...
Connection id: 114
Current database: pulak23241078

Query OK, 1 row affected (0.012 sec)
```

```
MariaDB [pulak23241078]> Insert into developers values(2,'Ryan Dahi','ryan@nodejs.org',633632,'2020-04-22',10);
Query OK, 1 row affected (0.005 sec)

MariaDB [pulak23241078]> Insert into developers values(3,'Brendan Eich','eich@javascript.com',939570,'2020-05-07',8);
Query OK, 1 row affected (0.004 sec)

MariaDB [pulak23241078]> Insert into developers values(5,'Evan You','you@vuejs.org',982630,'2020-06-11',7);
Query OK, 1 row affected (0.004 sec)

MariaDB [pulak23241078]> Insert into developers values(6,'Rasmus Lerdorf','lerdorf@php.net',937927,'2020-06-03',8);
Query OK, 1 row affected (0.004 sec)

MariaDB [pulak23241078]> Insert into developers values(7,'Guido van Rossum','guido@python.org',968827,'2020-07-18',19);
Query OK, 1 row affected (0.004 sec)

MariaDB [pulak23241078]> Insert into developers values(8,'Adrian Holovaty','adrian@djangoproject.com',570724,'2020-05-07',5);
Query OK, 1 row affected (0.004 sec)

MariaDB [pulak23241078]> Insert into developers values(9,'Simon Willison','simon@djangoproject.com',864615,'2020-04-30',4);
Query OK, 1 row affected (0.006 sec)

MariaDB [pulak23241078]> Insert into developers values(10,'James Gosling','james@java.com',719491,'2020-05-18',5);
Query OK, 1 row affected (0.004 sec)

MariaDB [pulak23241078]> Insert into developers values(11,'Rod Johnson','rod@spring.io',601744,'2020-05-18',7);
Query OK, 1 row affected (0.005 sec)

MariaDB [pulak23241078]> Insert into developers values(12,'Satoshi Nakamoto','nakamoto@blockchain.com',630488,'2020-05-10',10);
Query OK, 1 row affected (0.004 sec)
```

```
Query : select * from developers;
```

```
MariaDB [pulak23241078]> 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 Dahi     | 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@djangoproject.com | 570724         | 2020-05-07   | 5          |
| 9         | Simon Willison | simon@djangoproject.com | 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)
```

2. Change the column name “influence_count”. The new name should be “followers” and the data type should be integer.

Ans -

Query : alter table developers change column influence_count followers int;

```
MariaDB [pulak23241078]> alter table developers change column influence_count followers int;
Query OK, 0 rows affected (0.018 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

Query : select * from developers;

```
MariaDB [pulak23241078]> select * from developers;
+-----+-----+-----+-----+-----+-----+
| member_id | name          | email              | followers | joining_date | multiplier |
+-----+-----+-----+-----+-----+-----+
| 1 | Taylor Otwell | otwell@laravel.com | 739360 | 2020-06-10 | 10 |
| 2 | Ryan Dahi     | 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 project.com | 570724 | 2020-05-07 | 5 |
| 9 | Simon Willison | simon@django project.com | 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)
```

3. Update the number of followers of each developer by +10.

Ans -

Query : update developers set followers = followers + 10;

```
MariaDB [pulak23241078]> update developers set followers = followers + 10;
Query OK, 11 rows affected (0.005 sec)
Rows matched: 11 Changed: 11 Warnings: 0
```

Query : select * from developers;

```
MariaDB [pulak23241078]> select * from developers;
```

member_id	name	email	followers	joining_date	multiplier
1	Taylor Otwell	otwell@laravel.com	739370	2020-06-10	10
2	Ryan Dahi	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 project.com	570734	2020-05-07	5
9	Simon Willison	simon@django project.com	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)
```

4. There is a formula to find the efficiency of the developers. Efficiency = $((\text{followers} * 100 / 1000000) * (\text{multiplier} * 100 / 20)) / 100$. Show the efficiency of each developer in a column named “Efficiency” along with their name.

Ans -

Query : select name, $((\text{followers} * 100 / 1000000) * (\text{multiplier} * 100 / 20)) / 100$ as Efficiency from developers;

```
MariaDB [pulak23241078]> select name, ((followers*100/1000000) * (multiplier*100/20))/100 as Efficiency from developers;
```

name	Efficiency
Taylor Otwell	36.968500000000
Ryan Dahi	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)
```

5. Show the name and email of the developers who have the 5 highest numbers of followers.

Ans -

Query : Show the name and email of the developers who have the 5 highest numbers of followers.

```
MariaDB [pulak23241078]> 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@djangoproject.com |
+-----+-----+
5 rows in set (0.001 sec)
```

6. Show the name of all users with the maximum multiplier among the developers whose number of followers is less than 700000.

Ans -

Query : select name from developers where multiplier = (select max(multiplier) from developers where followers<700000) and followers<700000;

```
MariaDB [pulak23241078]> select name from developers where multiplier = (select max(multiplier) from developers where followers<700000) and followers<700000;
+-----+
| name          |
+-----+
| Ryan Dahi     |
| Satoshi Nakamoto |
+-----+
2 rows in set (0.002 sec)
```

7. Find the average of the number of followers but only consider the members who joined before 11 June 2020.

Ans -

Query : select avg(followers) as avg_followers from developers where joining_date < '2020-06-11';

```
MariaDB [pulak23241078]> select avg(followers) as avg_followers from developers where joining_date < '2020-06-11';
+-----+
| avg_followers |
+-----+
| 737515.6667   |
+-----+
1 row in set (0.001 sec)
```

8. Retrieve the member_id, name, email and followers of the developers who have either “.com” or “.net” in their email address.

Ans -

Query : select member_id,name,email,followers from developers where email like '%.com' or email like '%.net';

```
MariaDB [pulak23241078]> 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)
```