



## **CSE370**

### **Assignment 1**

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**Sec:** 04

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

create database Developers;

use Developers;

create table Developers

```
-> (  
-> member_id char(4),  
-> name varchar(30),  
-> email varchar(30),  
-> influence_count int,  
-> Joining_date date,  
-> multiplier int  
-> );
```

show tables;

describe Developers;

```
Administrator: XAMPP for Windows - mysql -u root -p  
# mysql -u root -p  
Enter password:  
Welcome to the MariaDB monitor. Commands end with ; or \g.  
Your MariaDB connection id is 9  
Server version: 10.4.28-MariaDB mariadb.org binary distribution  
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation AB and others.  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
MariaDB [(none)]> create database Developers;  
Query OK, 1 row affected (0.001 sec)  
MariaDB [(none)]> use Developers;  
Database changed  
MariaDB [Developers]> create table Developers  
-> (  
-> member_id char(4),  
-> name varchar(30),  
-> email varchar(30),  
-> influence_count int,  
-> Joining_date date,  
-> multiplier int  
-> );  
Query OK, 0 rows affected (0.007 sec)  
MariaDB [Developers]> show tables;  
+-----+  
| Tables_in_developers |  
+-----+  
| developers            |  
+-----+  
1 row in set (0.001 sec)  
MariaDB [Developers]> describe Developers;  
+-----+  
| Field      | Type      | Null | Key | Default | Extra |  
+-----+  
| member_id  | char(4)   | YES  |     | NULL    |       |  
| name       | varchar(30) | YES  |     | NULL    |       |  
| email      | varchar(30) | YES  |     | NULL    |       |  
| influence_count | int(11)  | YES  |     | NULL    |       |  
| Joining_date | date      | YES  |     | NULL    |       |  
| multiplier | int(11)   | YES  |     | NULL    |       |  
+-----+  
6 rows in set (0.003 sec)
```

insert into Developers values

```
-> ("1", "Taylor Otwell", "otwell@laravel.com", 739360, "2020-6-10", 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, "2020-06-3", 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);

```

select \* from Developers;

```

Administrator: XAMPP for Windows - mysql - u root - p
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'table values ('1', 'Taylor Otwell', 'otwell@laravel.com', 739360, '2020-6-10'...' at line 1
MariaDB [Developers]> insert into Developers values
-> ("1", "Taylor Otwell", "otwell@laravel.com", 739360, "2020-6-10", 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, "2020-06-3", 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);
Query OK, 11 rows affected (0.005 sec)
Records: 11 Duplicates: 0 Warnings: 0

MariaDB [Developers]> 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 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 (0.000 sec)

MariaDB [Developers]>

```

**2. Change the column name “influence\_count”. The new name should be “followers” and the data type should be integer.**

## ALTER TABLE Developers

-> CHANGE COLUMN influence\_count followers

-> int(11);

select \* from Developers;

```
Administrator: XAMPP for Windows - mysql - u root - p
MariaDB [Developers]> ALTER TABLE Developers
-> CHANGE COLUMN influence_count followers
-> int(11);
Query OK, 0 rows affected (0.004 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [Developers]> 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-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 (0.000 sec)

MariaDB [Developers]>
```

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

### Update Developers

-> SET followers = followers + 10;

select \* from Developers;

```
MariaDB [Developers]> Update Developers
-> SET followers = followers + 10;
Query OK, 11 rows affected (0.002 sec)
Rows matched: 11 Changed: 11 Warnings: 0

MariaDB [Developers]> 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-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 (0.000 sec)

MariaDB [Developers]>
```

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

Select name,  $((\text{followers} * 100 / 1000000) * (\text{multiplier} * 100 / 20)) / 100$  as

-> Efficiency from Developers;

```
MariaDB [Developers]> 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 (0.000 sec)
```

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

select name, email from Developers

-> order by followers desc limit 5;

```
MariaDB [developers]> 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 project.com

```
5 rows in set (0.000 sec)

MariaDB [developers]> _
```

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

Select name From Developers Where followers < 700000

-> AND multiplier = (Select MAX(multiplier) From Developers Where followers < 700000);

```
MariaDB [Developers]> 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 (0.000 sec)
```

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

select avg(followers) as avg\_followers from Developers

-> where Joining\_date < '2020-06-11';

```
MariaDB [developers]> select avg(followers) as avg_followers from Developers
-> where Joining_date < '2020-06-11';
+-----+
| avg_followers |
+-----+
| 737515.6667   |
+-----+
1 row in set (0.000 sec)
```

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

SELECT member\_id, name, email, followers From Developers

-> where email like '%.com' or email like '%.net';

```
MariaDB [developers]> 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 (0.000 sec)
```