

CSE 370 LAB ASSIGNMENT 1

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

Ans:

```
C:\> XAMPP for Windows - mysql -u root -p
MariaDB [370lab1]> create table developers (
  -> member_id int,
  -> name varchar(30),
  -> email varchar(40),
  -> influence_count char(6),
  -> joining_date date,
  -> multiplier int);
Query OK, 0 rows affected (0.024 sec)

MariaDB [370lab1]> show tables;
+-----+
| Tables_in_370lab1 |
+-----+
| developers         |
+-----+
1 row in set (0.001 sec)

MariaDB [370lab1]> describe developers;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| member_id  | int(11)   | YES  |     | NULL    |       |
| name       | varchar(30) | YES  |     | NULL    |       |
| email      | varchar(40) | YES  |     | NULL    |       |
| influence_count | char(6)   | YES  |     | NULL    |       |
| joining_date | date      | YES  |     | NULL    |       |
| multiplier | int(11)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.019 sec)
```

```

MariaDB [370lab1]> 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 (0.049 sec)
Records: 11 Duplicates: 0 Warnings: 0

MariaDB [370lab1]> 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 (0.001 sec)

```

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

Ans:

```

11 rows in set (0.001 sec)

MariaDB [370lab1]> Alter table developers change influence_count followers int;
Query OK, 11 rows affected (0.080 sec)
Records: 11 Duplicates: 0 Warnings: 0

MariaDB [370lab1]> 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 (0.002 sec)

```

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

Ans:

```
MariaDB [370lab1]> update developers set followers = followers +10;
Query OK, 11 rows affected (0.002 sec)
Rows matched: 11  Changed: 11  Warnings: 0

MariaDB [370lab1]> 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 (0.001 sec)
```

4. Show the name, email, and follower number of the developers.

Ans:

```
MariaDB [370lab1]> select name,email,followers from developers;
```

name	email	followers
Taylor Otwell	otwell@laravel.com	739370
Ryan Dahl	ryan@nodejs.org	633642
Brendan Eich	eich@javascript.com	939580
Evan You	you@vuejs.org	982640
Rasmus Lerdorf	lerdorf@php.net	937937
Guido van Rossum	guido@python.org	968837
Adrian Holovaty	adrian@django project.com	570734
Simon Willison	simon@django project.com	864625
James Gosling	james@java.com	719501
Rod Johnson	rod@spring.io	601754
Satoshi Nakamoto	nakamoto@blockchain.com	630498

```
11 rows in set (0.000 sec)
```

5. There is a formula to find the efficiency of the developers.

$\text{Efficiency} = ((\text{followers} * 100 / 1000000) * (\text{multiplier} * 100 / 20)) / 100$.

Show the efficiency of each developer in a column named "Efficiency" along with their name

Ans:

```
MariaDB [370lab1]> Alter table Developers add Efficiency double;
Query OK, 0 rows affected (0.013 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [370lab1]> select * from developers;
+-----+-----+-----+-----+-----+-----+-----+
| member_id | name          | email              | followers | joining_date | multiplier | Efficiency |
+-----+-----+-----+-----+-----+-----+-----+
| 1 | Taylor Otwell | otwell@laravel.com | 739370    | 2020-06-10   | 10         | NULL       |
| 2 | Ryan Dahl     | ryan@nodejs.org    | 633642    | 2020-04-22   | 10         | NULL       |
| 3 | Brendan Eich  | eich@javascript.com | 939580    | 2020-05-07   | 8          | NULL       |
| 5 | Evan You      | you@vuejs.org       | 982640    | 2020-06-11   | 7          | NULL       |
| 6 | Rasmus Lerdorf | lerdorf@php.net     | 937937    | 2020-06-03   | 8          | NULL       |
| 7 | Guido van Rossum | guido@python.org    | 968837    | 2020-07-18   | 19         | NULL       |
| 8 | Adrian Holovaty | adrian@django project.com | 570734    | 2020-05-07   | 5          | NULL       |
| 9 | Simon Willison | simon@django project.com | 864625    | 2020-04-30   | 4          | NULL       |
| 10 | James Gosling  | james@java.com      | 719501    | 2020-05-18   | 5          | NULL       |
| 11 | Rod Johnson    | rod@spring.io       | 601754    | 2020-05-18   | 7          | NULL       |
| 12 | Satoshi Nakamoto | nakamoto@blockchain.com | 630498    | 2020-05-10   | 10         | NULL       |
+-----+-----+-----+-----+-----+-----+-----+
11 rows in set (0.000 sec)

MariaDB [370lab1]> update developers set Efficiency = ((followers*100/1000000) * (multiplier*100/20))/100 ;
Query OK, 11 rows affected (0.003 sec)
Rows matched: 11 Changed: 11 Warnings: 0

MariaDB [370lab1]> select * from developers;
+-----+-----+-----+-----+-----+-----+-----+
| member_id | name          | email              | followers | joining_date | multiplier | Efficiency |
+-----+-----+-----+-----+-----+-----+-----+
| 1 | Taylor Otwell | otwell@laravel.com | 739370    | 2020-06-10   | 10         | 36.9685    |
| 2 | Ryan Dahl     | ryan@nodejs.org    | 633642    | 2020-04-22   | 10         | 31.6821    |
| 3 | Brendan Eich  | eich@javascript.com | 939580    | 2020-05-07   | 8          | 37.5832    |
| 5 | Evan You      | you@vuejs.org       | 982640    | 2020-06-11   | 7          | 34.3924    |
| 6 | Rasmus Lerdorf | lerdorf@php.net     | 937937    | 2020-06-03   | 8          | 37.51748   |
| 7 | Guido van Rossum | guido@python.org    | 968837    | 2020-07-18   | 19         | 92.039515  |
| 8 | Adrian Holovaty | adrian@django project.com | 570734    | 2020-05-07   | 5          | 14.26835   |
| 9 | Simon Willison | simon@django project.com | 864625    | 2020-04-30   | 4          | 17.2925    |
| 10 | James Gosling  | james@java.com      | 719501    | 2020-05-18   | 5          | 17.987525  |
| 11 | Rod Johnson    | rod@spring.io       | 601754    | 2020-05-18   | 7          | 21.06139   |
| 12 | Satoshi Nakamoto | nakamoto@blockchain.com | 630498    | 2020-05-10   | 10         | 31.5249    |
+-----+-----+-----+-----+-----+-----+-----+
11 rows in set (0.000 sec)
```

```
MariaDB [370lab1]> select name, Efficiency from developers;
```

name	Efficiency
Taylor Otwell	36.9685
Ryan Dahl	31.6821
Brendan Eich	37.5832
Evan You	34.3924
Rasmus Lerdorf	37.51748
Guido van Rossum	92.039515
Adrian Holovaty	14.26835
Simon Willison	17.2925
James Gosling	17.987525
Rod Johnson	21.06139
Satoshi Nakamoto	31.5249

```
11 rows in set (0.000 sec)
```

```
MariaDB [370lab1]>
```