CSE370 Database Systems Lab

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Section: 06
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Answer to the Question NO: 1

Database Creation:
create database lab1;
Selecting Database:
use lab1;
Table Creation:

create table Developers
(
    member_id char(2),
    name VARCHAR(40),
    email VARCHAR(100),
    influence_count char(6),
    Joining_date date,
    multiplier char(2)
);

Showing Table Properties:

describe Developers;

```
MariaDB [lab1]> create table Developers
    -> (
    ->      member_id char(2),
    ->      name VARCHAR(40),
    ->      email VARCHAR(100),
    ->      influence_count char(6),
    ->      Joining_date date,
    ->      multiplier char(2)
    -> );
Query OK, 0 rows affected (0.010 sec)

MariaDB [lab1]> describe Developers;
+-----------------+--------------+------+-----+---------+-------+
| Field           | Type         | Null | Key | Default | Extra |
+-----------------+--------------+------+-----+---------+-------+
| member_id       | char(2)      | YES  |     | NULL    |       |
| name            | varchar(40)  | YES  |     | NULL    |       |
| email           | varchar(100) | YES  |     | NULL    |       |
| influence_count | char(6)      | YES  |     | NULL    |       |
| Joining_date    | date         | YES  |     | NULL    |       |
| multiplier      | char(2)      | YES  |     | NULL    |       |
+-----------------+--------------+------+-----+---------+-------+
6 rows in set (0.022 sec)
```

Inserting Data:

insert into developers (member_id, name, email, influence_count, Joining_date, multiplier)
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),
  (4, 'Evan You', 'you@vuejs.org', 982630, '2020-06-11', 7),
  (5, 'Rasmus Lerdorf', 'lerdorf@php.net', 937927, '2020-06-03', 8),
  (6, 'Guido van Rossum', 'guido@python.org', 968827, '2020-07-18', 19),
  (7, 'Adrian Holovaty', 'adrian@djangoproject.com', 570724, '2020-05-07', 5),
  (8, 'Simon Willison', 'simon@djangoproject.com', 864615, '2020-04-30', 4),
  (9, 'James Gosling', 'james@java.com', 719491, '2020-05-18', 5),
  (10, 'Rod Johnson', 'rod@spring.io', 601744, '2020-05-18', 7),
  (11, 'Satoshi Nakamoto', 'nakamoto@blockchain.com', 630488, '2020-05-10', 10);

Showing Table:

select * from developers;

```
MariaDB [lab1]> 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          |
| 4         | Evan You         | you@vuejs.org            | 982630          | 2020-06-11   | 7          |
| 5         | Rasmus Lerdorf   | lerdorf@php.net          | 937927          | 2020-06-03   | 8          |
| 6         | Guido van Rossum | guido@python.org         | 968827          | 2020-07-18   | 19         |
| 7         | Adrian Holovaty  | adrian@djangoproject.com | 570724          | 2020-05-07   | 5          |
| 8         | Simon Willison   | simon@djangoproject.com  | 864615          | 2020-04-30   | 4          |
| 9         | James Gosling    | james@java.com           | 719491          | 2020-05-18   | 5          |
| 10        | Rod Johnson      | rod@spring.io            | 601744          | 2020-05-18   | 7          |
| 11        | Satoshi Nakamoto | nakamoto@blockchain.com  | 630488          | 2020-05-10   | 10         |
+-----------+------------------+--------------------------+-----------------+--------------+------------+
11 rows in set (0.001 sec)
```

Answer to the Question NO: 2

ALTER TABLE Developers
change column influence_count followers INT;

```
MariaDB [lab1]> ALTER TABLE Developers
    -> CHANGE COLUMN influence_count followers INT;
Query OK, 0 rows affected (0.059 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [lab1]> describe developers;
+--------------+--------------+------+-----+---------+-------+
| Field        | Type         | Null | Key | Default | Extra |
+--------------+--------------+------+-----+---------+-------+
| member_id    | char(2)      | YES  |     | NULL    |       |
| name         | varchar(40)  | YES  |     | NULL    |       |
| email        | varchar(100) | YES  |     | NULL    |       |
| followers    | int(11)      | YES  |     | NULL    |       |
| Joining_date | date         | YES  |     | NULL    |       |
| multiplier   | char(2)      | YES  |     | NULL    |       |
+--------------+--------------+------+-----+---------+-------+
6 rows in set (0.014 sec)

MariaDB [lab1]>
```

Answer to the Question NO: 3

update developers
set followers = followers + 10;

```
MariaDB [lab1]> 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          |
| 4         | Evan You        | you@vuejs.org               |    982630 | 2020-06-11   | 7          |
| 5         | Rasmus Lerdorf  | lerdorf@php.net             |    937927 | 2020-06-03   | 8          |
| 6         | Guido van Rossum| guido@python.org            |    968827 | 2020-07-18   | 19         |
| 7         | Adrian Holovaty | adrian@djangoproject.com    |    570724 | 2020-05-07   | 5          |
| 8         | Simon Willison  | simon@djangoproject.com     |    864615 | 2020-04-30   | 4          |
| 9         | James Gosling   | james@java.com              |    719491 | 2020-05-18   | 5          |
| 10        | Rod Johnson     | rod@spring.io               |    601744 | 2020-05-18   | 7          |
| 11        | Satoshi Nakamoto| nakamoto@blockchain.com     |    630488 | 2020-05-10   | 10         |
+-----------+-----------------+-----------------------------+-----------+--------------+------------+
11 rows in set (0.000 sec)

MariaDB [lab1]> update developers
    -> set followers = followers + 10;
Query OK, 11 rows affected (0.003 sec)
Rows matched: 11  Changed: 11  Warnings: 0

MariaDB [lab1]> 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          |
| 4         | Evan You        | you@vuejs.org               |    982640 | 2020-06-11   | 7          |
| 5         | Rasmus Lerdorf  | lerdorf@php.net             |    937937 | 2020-06-03   | 8          |
| 6         | Guido van Rossum| guido@python.org            |    968837 | 2020-07-18   | 19         |
| 7         | Adrian Holovaty | adrian@djangoproject.com    |    570734 | 2020-05-07   | 5          |
| 8         | Simon Willison  | simon@djangoproject.com     |    864625 | 2020-04-30   | 4          |
| 9         | James Gosling   | james@java.com              |    719501 | 2020-05-18   | 5          |
| 10        | Rod Johnson     | rod@spring.io               |    601754 | 2020-05-18   | 7          |
| 11        | Satoshi Nakamoto| nakamoto@blockchain.com     |    630498 | 2020-05-10   | 10         |
+-----------+-----------------+-----------------------------+-----------+--------------+------------+
11 rows in set (0.000 sec)
```

Answer to the Question NO: 4

select name, ((followers * 100 / 1000000) * (multiplier * 100 / 20)) / 100 as efficiency
from developers;

```
MariaDB [lab1]> select name, ((followers * 100 / 1000000) * (multiplier * 100 / 20)) / 100 as efficiency
    -> from developers;
+------------------+--------------------+
| name             | efficiency         |
+------------------+--------------------+
| Taylor Otwell    |            36.9685 |
| Ryan Dahl        | 31.682100000000002 |
| Brendan Eich     |            37.5832 |
| Evan You         | 34.392399999999995 |
| Rasmus Lerdorf   |           37.51748 |
| Guido van Rossum | 92.03951500000001  |
| Adrian Holovaty  |           14.26835 |
| Simon Willison   |            17.2925 |
| James Gosling    |          17.987525 |
| Rod Johnson      | 21.061390000000003 |
| Satoshi Nakamoto |            31.5249 |
+------------------+--------------------+
11 rows in set (0.001 sec)
```

Answer to Question NO:5

select upper(name) name, joining_date
from Developers
order by joining_date desc;

```
MariaDB [lab1]> select upper(name) name, joining_date
    -> from Developers
    -> order by joining_date desc;
+------------------+--------------+
| name             | joining_date |
+------------------+--------------+
| GUIDO VAN ROSSUM | 2020-07-18   |
| EVAN YOU         | 2020-06-11   |
| TAYLOR OTWELL    | 2020-06-10   |
| RASMUS LERDORF   | 2020-06-03   |
| JAMES GOSLING    | 2020-05-18   |
| ROD JOHNSON      | 2020-05-18   |
| SATOSHI NAKAMOTO | 2020-05-10   |
| BRENDAN EICH     | 2020-05-07   |
| ADRIAN HOLOVATY  | 2020-05-07   |
| SIMON WILLISON   | 2020-04-30   |
| RYAN DAHL        | 2020-04-22   |
+------------------+--------------+
11 rows in set (0.001 sec)
```

Answer to the Question NO: 6

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

```
MariaDB [lab1]> 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 |
| 5         | Rasmus Lerdorf   | lerdorf@php.net           |    937937 |
| 7         | Adrian Holovaty  | adrian@djangoproject.com  |    570734 |
| 8         | Simon Willison   | simon@djangoproject.com   |    864625 |
| 9         | James Gosling    | james@java.com            |    719501 |
| 11        | Satoshi Nakamoto | nakamoto@blockchain.com   |    630498 |
+-----------+------------------+---------------------------+-----------+
7 rows in set (0.001 sec)
```