CSE370 : DATABASE SYSTEMS

LAB HOMEWORK - 1

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SECTION : 05

Answer 1 :

create database Area120;

use Area120;

create table Developers (
member_id int,
name varchar(300),
email varchar(320),
influence_count char(6),
Joining_date date,
multiplier int
);

show tables;

describe 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@djangoproject.com','570724','2020-05-07',5),
(9,'Simon Willison','simon@djangproject.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;

```
MariaDB [(none)]> create database Area120;
Query OK, 1 row affected (0.001 sec)

MariaDB [(none)]> use Area120;
Database changed
MariaDB [Area120]> create table Developers (
    -> member_id int,
    -> name varchar(300),
    -> email varchar(320),
    -> influence_count char(6),
    -> Joining_date date,
    -> multiplier int
    -> );
Query OK, 0 rows affected (0.013 sec)

MariaDB [Area120]> show tables;
+-------------------+
| Tables_in_area120 |
+-------------------+
| developers        |
+-------------------+
1 row in set (0.001 sec)

MariaDB [Area120]> describe Developers;
+-----------------+--------------+------+-----+---------+-------+
| Field           | Type         | Null | Key | Default | Extra |
+-----------------+--------------+------+-----+---------+-------+
| member_id       | int(11)      | YES  |     | NULL    |       |
| name            | varchar(300) | YES  |     | NULL    |       |
| email           | varchar(320) | YES  |     | NULL    |       |
| influence_count | char(6)      | YES  |     | NULL    |       |
| Joining_date    | date         | YES  |     | NULL    |       |
| multiplier      | int(11)      | YES  |     | NULL    |       |
+-----------------+--------------+------+-----+---------+-------+
```

```
MariaDB [Area120]> 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@djangoproject.com','570724','2020-05-07',5),
    -> (9,'Simon Willison','simon@djangproject.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 (0.003 sec)
Records: 11  Duplicates: 0  Warnings: 0

MariaDB [Area120]> 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@djangoproject.com|          570724 | 2020-05-07   |          5 |
|         9 | Simon Willison   | simon@djangproject.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)
```

Answer 2 :

alter table Developers change column influence_count followers int;

describe Developers;

```
MariaDB [Area120]> alter table Developers change column influence_count followers int;
Query OK, 11 rows affected (0.052 sec)
Records: 11  Duplicates: 0  Warnings: 0

MariaDB [Area120]> describe Developers;
+--------------+--------------+------+-----+---------+-------+
| Field        | Type         | Null | Key | Default | Extra |
+--------------+--------------+------+-----+---------+-------+
| member_id    | int(11)      | YES  |     | NULL    |       |
| name         | varchar(300) | YES  |     | NULL    |       |
| email        | varchar(320) | YES  |     | NULL    |       |
| followers    | int(11)      | YES  |     | NULL    |       |
| Joining_date | date         | YES  |     | NULL    |       |
| multiplier   | int(11)      | YES  |     | NULL    |       |
+--------------+--------------+------+-----+---------+-------+
6 rows in set (0.012 sec)
```

Answer 3 :

update Developers set followers = followers + 10;

select * from Developers;

```
MariaDB [Area120]> update Developers set followers = followers + 10;
Query OK, 11 rows affected (0.006 sec)
Rows matched: 11  Changed: 11  Warnings: 0

MariaDB [Area120]> 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@djangoproject.com   |    570734 | 2020-05-07   |          5 |
|         9 | Simon Willison   | simon@djangproject.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)
```

Answer 4 :

select name,email,followers from Developers;

```
MariaDB [Area120]> 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@djangoproject.com |    570734 |
| Simon Willison   | simon@djangproject.com   |    864625 |
| James Gosling    | james@java.com           |    719501 |
| Rod Johnson      | rod@spring.io            |    601754 |
| Satoshi Nakamoto | nakamoto@blockchain.com  |    630498 |
```

Answer 5 :

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

```
MariaDB [Area120]> 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 (0.003 sec)
```