CSE370 : Database Systems

Assignment 01 | Fall 2024

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No 1 Query (as Plain Text)	CREATE DATABASE Google_22201998;
	
	 USE Google_22201998;
	
	 ```CREATE TABLE Developers (```
	 ``` member_id INT,```
	 ``` name VARCHAR(20),```
	 ``` email VARCHAR(40),```
	 ``` influence_count INT,```
	 ``` Joining_date DATE,```
	 ``` multiplier INT```
	 ```);```
	
	 ```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),```
	 ``` (4, "Evan You", "you@vuejs.org", 982630, "2020-06-11", 7),```
	 ``` (5, "Rasmus Lerdorf", "lerdorf@php.net", 937927, "2020-06-3", 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);```

No 1 SS (of Query & Output in Shell)	

```
XAMPP for Windows - mysql     ×    +    ∨                                                          —   □   ×

MariaDB [(none)]> CREATE DATABASE Google_22201998;
Query OK, 1 row affected (0.002 sec)

MariaDB [(none)]> USE Google_22201998;
Database changed
MariaDB [Google_22201998]> 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 (0.012 sec)

MariaDB [Google_22201998]> 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),
    -> (4, "Evan You", "you@vuejs.org", 982630, "2020-06-11", 7),
    -> (5, "Rasmus Lerdorf", "lerdorf@php.net", 937927, "2020-6-3", 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);
Query OK, 11 rows affected (0.053 sec)
Records: 11  Duplicates: 0  Warnings: 0

MariaDB [Google_22201998]> 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 |
+-----------+------------------+--------------------------+-----------------+--------------+------------+
```
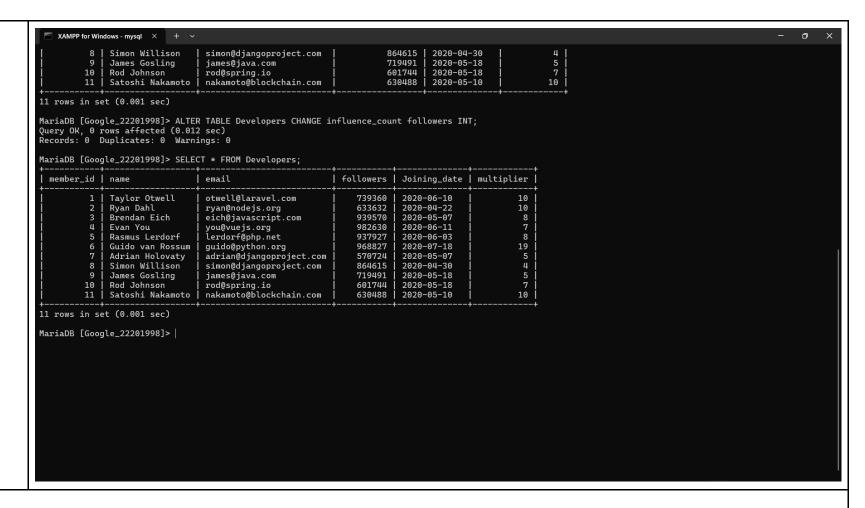
No 2 Query (as Plain Text)	ALTER TABLE Developers CHANGE influence_count followers INT;

| No 2 SS (of Query & Output in Shell) | |

```
|          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)

MariaDB [Google_22201998]> ALTER TABLE Developers CHANGE influence_count followers INT;
Query OK, 0 rows affected (0.012 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [Google_22201998]> 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 (0.001 sec)

MariaDB [Google_22201998]>
```

| No 3 Query (as Plain Text) | UPDATE Developers SET followers = followers+10 WHERE member_id >= 1; |

| No 3 SS<br>(of Query & Output<br>in Shell) | ![XAMPP for Windows - mysql terminal screenshot]<br><br>```
|         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 [Google_22201998]> UPDATE Developers SET followers = followers+10 WHERE member_id >= 1;
Query OK, 11 rows affected (0.003 sec)
Rows matched: 11  Changed: 11  Warnings: 0

MariaDB [Google_22201998]> 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 (0.001 sec)

MariaDB [Google_22201998]>
``` |
| | |
| No 4 Query
(as Plain Text) | SELECT name, ((followers*100/1000000) * (multiplier*100/20))/100 as Efficiency FROM Developers; |

| **No 4 SS**<br>**(of Query & Output in Shell)** | ```
MariaDB [Google_22201998]> 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)

MariaDB [Google_22201998]>
``` |
| | |
| **No 5 Query**
(as Plain Text) | SELECT UPPER(name) FROM Developers ORDER BY Joining_date DESC; |
| **No 5 SS**<br>**(of Query & Output in Shell)** | ```
MariaDB [Google_22201998]> SELECT UPPER(name) FROM Developers ORDER BY Joining_date DESC;
+-------------------+
| UPPER(name)       |
+-------------------+
| GUIDO VAN ROSSUM  |
| EVAN YOU          |
| TAYLOR OTWELL     |
| RASMUS LERDORF    |
| JAMES GOSLING     |
| ROD JOHNSON       |
| SATOSHI NAKAMOTO  |
| BRENDAN EICH      |
| ADRIAN HOLOVATY   |
| SIMON WILLISON    |
| RYAN DAHL         |
+-------------------+
11 rows in set (0.001 sec)

MariaDB [Google_22201998]>
``` |
| | |
| **No 6 Query** | SELECT member_id, name, email, followers FROM Developers WHERE email LIKE "%.com" OR email LIKE "%.net"; |

(as Plain Text)	
| **No 6 SS**<br>**(of Query & Output**<br>**in Shell)** | ```
MariaDB [Google_22201998]> 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)

MariaDB [Google_22201998]> 
``` |
No 7 Query **(as Plain Text)**	
No 7 SS **(of Query & Output** **in Shell)**	