

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

FALL 2022

COURSE CODE:CSE370

LAB HOMEWORK:01

SECTION:05

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Lab Homework 2

Soon after joining Google's elite dev team, Area 120, you were assigned to a project using MySQL since it was your specialty. The project was a social media platform specialized in allowing developers from all over the globe to connect to each other, and it would have features similar to Facebook. For your first task, you have been assigned to work on the tables of one of the project databases. The table name is "Developers" which is shown below.

member_id	name	email	followers	Joining_date	multiplier
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

Write the queries of the tasks given below :

1. Show all the unique dates of the users joining in ascending order. [1]
2. Show the name and email of the developers who have the 5 highest numbers of followers. [2]
3. Count the number of developers in each multiplier [2]

4. Show the name of the user with the maximum multiplier among the developers whose number of followers is less than 700000. [2]
5. Find the average of the number of followers but only consider the members who joined before 11 June 2020. [2]
6. Retrieve the id, name, email, and followers of the developers who have either ".com" or ".net" in their email address. [1]

CREATE TABLE Developers(

```
-> member_id int,
-> name varchar(40),
-> email varchar(50),
-> 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), ('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);

```
MariaDB [cse370_homework02]> SELECT * FROM Developers GROUP BY joining_date;
```

member_id	name	email	Influence_count	joining_date	multiplier
2	Ryan Dahl	ryan@nodejs.org	633632	2020-04-22	10
9	Simon Willison	simon@django project.com	864615	2020-04-30	4
3	Brendan Eich	eich@javascript.com	939570	2020-05-07	8
12	Satoshi Nakamoto	nakamoto@blockchain.com	630488	2020-05-10	10
10	James Gosling	james@java.com	719491	2020-05-18	5
6	Rasmus Lerdorf	lerdorf@php.net	937927	2020-06-03	8
1	Taylor Otwell	otwell@laravel.com	739360	2020-06-10	10
5	Evan You	you@vuejs.org	982630	2020-06-11	7
7	Guido van Rossum	guido@python.org	968827	2020-07-18	19

```
9 rows in set (0.001 sec)
```

TASK:01

SELECT * FROM Developers GROUP BY joining_date;

```
MariaDB [cse370_homework02]> SELECT * FROM Developers GROUP BY joining_date;
```

member_id	name	email	Influence_count	joining_date	multiplier
2	Ryan Dahl	ryan@nodejs.org	633632	2020-04-22	10
9	Simon Willison	simon@django-project.com	864615	2020-04-30	4
3	Brendan Eich	eich@javascript.com	939570	2020-05-07	8
12	Satoshi Nakamoto	nakamoto@blockchain.com	630488	2020-05-10	10
10	James Gosling	james@java.com	719491	2020-05-18	5
6	Rasmus Lerdorf	lerdorf@php.net	937927	2020-06-03	8
1	Taylor Otwell	otwell@laravel.com	739360	2020-06-10	10
5	Evan You	you@vuejs.org	982630	2020-06-11	7
7	Guido van Rossum	guido@python.org	968827	2020-07-18	19

9 rows in set (0.001 sec)

TASK:02

SELECT name, email FROM Developers ORDER BY Influence_count DESC LIMIT 5;

```
MariaDB [cse370_homework02]> SELECT name, email FROM Developers ORDER BY Influence_count 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)

TASK:03

SELECT multiplier, COUNT(*) AS number_of_developers FROM Developers GROUP BY multiplier;

```
MariaDB [cse370_homework02]> SELECT multiplier, COUNT(*) AS number_of_developers FROM Developers GROUP BY multiplier;
```

multiplier	number_of_developers
4	1
5	2
7	2
8	2
10	3
19	1

6 rows in set (0.002 sec)

TASK:04

```
SELECT name FROM Developers WHERE (member_id, multiplier) IN (SELECT member_id,
    multiplier FROM Developers WHERE Influence_count < 700000 AND multiplier = (SELECT
    MAX(multiplier) FROM Developers WHERE Influence_count< 700000));
```

```
MariaDB [cse370_homework02]> SELECT name FROM Developers WHERE (member_id, multiplier) IN
    -> (SELECT member_id, multiplier FROM Developers WHERE
    -> Influence_count < 700000 AND multiplier = (SELECT MAX(multiplier) FROM Developers WHERE Influence_count< 700000));
+-----+
| name |
+-----+
| Ryan Dahl |
| Satoshi Nakamoto |
+-----+
2 rows in set (0.005 sec)
```

TASK:05

```
SELECT AVG(Influence_count) FROM Developers WHERE joining_date < "2020-06-11";
```

```
MariaDB [cse370_homework02]> SELECT AVG(Influence_count) FROM Developers WHERE joining_date < "2020-06-11";
+-----+
| AVG(Influence_count) |
+-----+
| 737505.6667 |
+-----+
1 row in set (0.000 sec)
```

TASK:06

```
SELECT member_id, name, email, Influence_count FROM Developers WHERE email LIKE
    "%.com" OR email LIKE "%.net";
```

```
MariaDB [cse370_homework02]> SELECT member_id, name, email, Influence_count FROM Developers WHERE email LIKE "%.com" OR email LIKE "%.net";
+-----+-----+-----+-----+
| member_id | name | email | Influence_count |
+-----+-----+-----+-----+
| 1 | Taylor Otwell | otwell@laravel.com | 739360 |
| 3 | Brendan Eich | eich@javascript.com | 939570 |
| 6 | Rasmus Lerdorf | lerdorf@php.net | 937927 |
| 8 | Adrian Holovaty | adrian@django project.com | 570724 |
| 9 | Simon Willison | simon@django project.com | 864615 |
| 10 | James Gosling | james@java.com | 719491 |
| 12 | Satoshi Nakamoto | nakamoto@blockchain.com | 630488 |
+-----+-----+-----+-----+
7 rows in set (0.000 sec)

MariaDB [cse370_homework02]> _
```