

## Department of Computer Science and Engineering

<b>Course Code: CSE 370</b>	<b>Credits: 3.0</b>
<b>Course Name: Database Systems</b>	

### Lab Homework 2

Create database:

```
create database home_work_2;
```

```
use home_work_2;
```

```
MariaDB [(none)]> create database home_work_2;  
Query OK, 1 row affected (0.003 sec)  
  
MariaDB [(none)]> use home_work_2;  
Database changed
```

Create Table:

```
create table Developers(member_id INT primary key, name varchar(50), email  
varchar(100), followers INT, joining_date Date, multiplier INT);
```

```
MariaDB [home_work_2]> create table Developers(  
-> member_id INT primary key, name varchar(50), email varchar(100), followers INT, joining_date Date, multiplier INT);  
Query OK, 0 rows affected (0.032 sec)
```

Insert info:

```
INSERT INTO Developers (member_id, name, email, followers, 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),
```

```
(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);

```
MariaDB [home_work_2]> INSERT INTO Developers (member_id, name, email, followers, 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),
-> (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);
Query OK, 11 rows affected (0.010 sec)
Records: 11 Duplicates: 0 Warnings: 0
```

```
MariaDB [home_work_2]> 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 (0.003 sec)
```

## Task

1. select distinct joining\_date from Developers order by joining\_date asc;

```
MariaDB [home_work_2]> select distinct joining_date from Developers order by joining_date asc;
+-----+
| joining_date |
+-----+
| 2020-04-22   |
| 2020-04-30   |
| 2020-05-07   |
| 2020-05-10   |
| 2020-05-18   |
| 2020-06-03   |
| 2020-06-10   |
| 2020-06-11   |
| 2020-07-18   |
+-----+
9 rows in set (0.001 sec)
```

2. SELECT name, email FROM Developers ORDER BY followers DESC LIMIT 5;

```
MariaDB [home_work_2]> select name, email from Developers where followers<=5;
Empty set (0.003 sec)

MariaDB [home_work_2]> SELECT name, email
  -> FROM Developers
  -> ORDER BY followers 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@djangoproject.com           |
+-----+-----+
5 rows in set (0.001 sec)
```

3. SELECT multiplier, COUNT(\*) as count FROM Developers GROUP BY multiplier;

```
MariaDB [home_work_2]> SELECT multiplier, COUNT(*) as count FROM Developers GROUP BY multiplier;
```

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

```
6 rows in set (0.004 sec)
```

4. SELECT name FROM Developers WHERE followers < 700000 GROUP BY multiplier HAVING multiplier = MAX(multiplier);

```
MariaDB [home_work_2]> SELECT name FROM Developers WHERE followers < 700000 GROUP BY multiplier HAVING multiplier = MAX(multiplier);
```

name
Adrian Holovaty
Rod Johnson
Ryan Dahl

5. SELECT AVG(followers) AS average\_followers FROM Developers WHERE joining\_date < '2020-06-11';

6. SELECT member\_id, name, email, followers FROM Developers WHERE email LIKE '%.com' OR email LIKE '%.net';

```
MariaDB [home_work_2]> SELECT AVG(followers) AS average_followers FROM Developers WHERE joining_date < '2020-06-11';
```

average_followers
737505.6667

```
1 row in set (0.002 sec)
```

```
MariaDB [home_work_2]> 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	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 (0.003 sec)
```