# CSE 370: DATABASE SYSTEMS

# ASSIGNMENT-1

Name: Ahmed Rafiun Nur

Student_ID: 24241076

Section: 07

## TASK-1

create database Google_24241076;

```
MariaDB [(none)]> create database Google_24241076;
Query OK, 1 row affected (0.001 sec)
```

show databases;

```
MariaDB [(none)]> show databases;
+--------------------+
| Database           |
+--------------------+
| cse370_lab01_sec07 |
| google_24241076    |
| information_schema |
| mysql              |
| performance_schema |
| phpmyadmin         |
| test               |
+--------------------+
7 rows in set (0.019 sec)
```

use Google_24241076;

```
MariaDB [(none)]> use Google_24241076;
Database changed
```

create table developers(

 member_id INT,

 name VARCHAR(30),

 email VARCHAR(320),

 influence_count INT,

 Joining_date DATE,

 multiplier INT

 );

```
MariaDB [Google_24241076]> create table developers(
    ->    member_id INT,
    ->    name VARCHAR(30),
    ->    email VARCHAR(320),
    ->    influence_count INT,
    ->    Joining_date DATE,
    ->    multiplier INT
    ->    );
Query OK, 0 rows affected (0.007 sec)

MariaDB [Google_24241076]> describe developers;
+-----------------+--------------+------+-----+---------+-------+
| Field           | Type         | Null | Key | Default | Extra |
+-----------------+--------------+------+-----+---------+-------+
| member_id       | int(11)      | YES  |     | NULL    |       |
| name            | varchar(30)  | YES  |     | NULL    |       |
| email           | varchar(320) | YES  |     | NULL    |       |
| influence_count | int(11)      | YES  |     | NULL    |       |
| Joining_date    | date         | YES  |     | NULL    |       |
| multiplier      | int(11)      | YES  |     | NULL    |       |
+-----------------+--------------+------+-----+---------+-------+
6 rows in set (0.012 sec)
```

describe developers;

```
MariaDB [Google_24241076]> describe developers;
+----------------+--------------+------+-----+---------+-------+
| Field          | Type         | Null | Key | Default | Extra |
+----------------+--------------+------+-----+---------+-------+
| member_id      | int(11)      | YES  |     | NULL    |       |
| name           | varchar(30)  | YES  |     | NULL    |       |
| email          | varchar(320) | YES  |     | NULL    |       |
| influence_count| int(11)      | YES  |     | NULL    |       |
| Joining_date   | date         | YES  |     | NULL    |       |
| multiplier     | int(11)      | YES  |     | NULL    |       |
+----------------+--------------+------+-----+---------+-------+
6 rows in set (0.012 sec)
```

insert into developers values

(1,"Taylor Otwell","otwell@laravel.com",739360,"2020-6-10",10);

```
MariaDB [Google_24241076]> insert into developers values
    ->   (1,"Taylor Otwell","otwell@laravel.com",739360,"2020-6-10",10);
Query OK, 1 row affected (0.022 sec)

MariaDB [Google_24241076]> select * from developers;
+-----------+--------------+--------------------+-----------------+--------------+------------+
| member_id | name         | email              | influence_count | Joining_date | multiplier |
+-----------+--------------+--------------------+-----------------+--------------+------------+
|         1 | Taylor Otwell| otwell@laravel.com |          739360 | 2020-06-10   |         10 |
+-----------+--------------+--------------------+-----------------+--------------+------------+
1 row in set (0.000 sec)
```

INSERT INTO Developers (member_id, name, email, influence_count, Joining_date, multiplier)

VALUES

(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);

```
            (4, "Ev..." at line 4
MariaDB [Google_24241076]> INSERT INTO Developers (member_id, name, email, influence_count, Joining_date, multiplier)
    ->    VALUES
    ->    (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);
Query OK, 10 rows affected (0.003 sec)
Records: 10  Duplicates: 0  Warnings: 0
```

select * from developers;

```
MariaDB [Google_24241076]> 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 (0.000 sec)
```

## #TASK-2

ALTER TABLE developers

 CHANGE COLUMN influence_count followers INT;

```
MariaDB [Google_24241076]> ALTER TABLE developers
    ->    CHANGE COLUMN influence_count followers INT;
Query OK, 0 rows affected (0.006 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

select * from developers;

```
MariaDB [Google_24241076]> 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)
```

## #TASK-3

UPDATE developers

  SET followers = followers +10;

```
MariaDB [Google_24241076]> UPDATE developers
    ->    SET followers = followers +10;
Query OK, 11 rows affected (0.002 sec)
Rows matched: 11  Changed: 11  Warnings: 0
```

select * from developers;

```
MariaDB [Google_24241076]> 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)
```

## #TASK-4

SELECT

name,

ROUND(((followers*100/1000000) * (multiplier*100/20))/100) AS Efficiency

FROM

developers;

```
MariaDB [Google_24241076]> SELECT
    ->    name,
    ->    ROUND(((followers*100/1000000) * (multiplier*100/20))/100) AS Efficiency
    ->    FROM
    ->    developers;
+-------------------+------------+
| name              | Efficiency |
+-------------------+------------+
| Taylor Otwell     |         37 |
| Ryan Dahl         |         32 |
| Brendan Eich      |         38 |
| Evan You          |         34 |
| Rasmus Lerdorf    |         38 |
| Guido van Rossum  |         92 |
| Adrian Holovaty   |         14 |
| Simon Willison    |         17 |
| James Gosling     |         18 |
| Rod Johnson       |         21 |
| Satoshi Nakamoto  |         32 |
+-------------------+------------+
11 rows in set (0.000 sec)
```

# #TASK-5

SELECT

UPPER(name) AS Name,

Joining_date

FROM

Developers

ORDER BY

Joining_date DESC;

```
MariaDB [Google_24241076]> SELECT
    ->     UPPER(name) AS 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 (0.000 sec)
```

## #TASK-6

SELECT

   member_id,

   name,

   email,

   followers

FROM

   Developers

WHERE

   email LIKE '%.com' OR email LIKE '%.net';

```
MariaDB [Google_24241076]> 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 (0.000 sec)
```