

CSE370 : Database Systems

Assignment 01 | Fall 2024

ID : 22201421 | Name : Masrura Nahian Nodi

Make a PDF after completing the assignment

| | |
|---------------------------------------|---|
| No 1 Query (as Plain Text) | <pre>create database Google_22201421; create table Developers (member_id int, name varchar(30), 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), (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@django project.com',570724,'2020-05-07',5), (8,'Simon Willison','simon@django project.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) ; show tables; describe Developers; select * from Developers;</pre> |
|---------------------------------------|---|

No 1 SS
(of Query & Output
in Shell)

```
MariaDB [(none)]> create database Google_22201421;
Query OK, 1 row affected (0.002 sec)

MariaDB [(none)]> use Google_22201421;
Database changed
MariaDB [Google_22201421]> create table Developers
-> (
-> member_id int,
-> name varchar(30),
-> email varchar(50),
-> influence_count int,
-> Joining_date date,
-> multiplier int
-> );
Query OK, 0 rows affected (1.859 sec)

MariaDB [Google_22201421]> 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@django project.com',570724,'2020-05-07',5),
-> (8,'Simon Willison','simon@django project.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 (2.256 sec)
Records: 11  Duplicates: 0  Warnings: 0
```

```
MariaDB [Google_22201421]> show tables;
```

```
+-----+  
| Tables_in_google_22201421 |  
+-----+  
| developers |  
+-----+
```

```
1 row in set (0.435 sec)
```

```
MariaDB [Google_22201421]> describe Developers;
```

```
+-----+-----+-----+-----+-----+-----+  
| Field          | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| member_id      | int(11)       | YES  |     | NULL    |       |  
| name           | varchar(30)   | YES  |     | NULL    |       |  
| email          | varchar(50)   | YES  |     | NULL    |       |  
| influence_count | int(11)       | YES  |     | NULL    |       |  
| Joining_date   | date          | YES  |     | NULL    |       |  
| multiplier     | int(11)       | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+
```

```
6 rows in set (0.519 sec)
```

```
MariaDB [Google_22201421]> 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 (1.679 sec)
```

| | |
|---|--|
| No 2 Query (as Plain Text) | alter table Developers change column influence_count followers int; select * from Developers; |
| No 2 SS (of Query & Output in Shell) | <pre> MariaDB [Google_22201421]> alter table Developers -> change column influence_count followers int; Query OK, 0 rows affected (0.507 sec) Records: 0 Duplicates: 0 Warnings: 0 MariaDB [Google_22201421]> 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 (1.693 sec) </pre> |
| No 3 Query (as Plain Text) | update Developers set followers = followers + 10; select * from Developers; |

No 3 SS
(of Query & Output
in Shell)

```
MariaDB [Google_22201421]> update Developers
    -> set followers = followers + 10;
Query OK, 11 rows affected (1.865 sec)
Rows matched: 11  Changed: 11  Warnings: 0
```

```
MariaDB [Google_22201421]> 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@django project.com | 570734 | 2020-05-07 | 5 |
| 8 | Simon Willison | simon@django project.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 (0.002 sec)
```

No 4 Query
(as Plain Text)

```
select name,((followers * 100.0 / 1000000) * (multiplier * 100.0 / 20)) / 100 as Efficiency from Developers;
```

No 4 SS
(of Query & Output
in Shell)

```
MariaDB [Google_22201421]> select name,((followers * 100.0 / 1000000) * (multiplier * 100.0 / 20)) / 100 as Efficiency from Developers;
+-----+-----+
| name      | Efficiency |
+-----+-----+
| Taylor Otwell | 36.96850000000000 |
| Ryan Dahl    | 31.68210000000000 |
| Brendan Eich | 37.58320000000000 |
| Evan You     | 34.39240000000000 |
| Rasmus Lerdorf | 37.51748000000000 |
| Guido van Rossum | 92.03951500000000 |
| Adrian Holovaty | 14.26835000000000 |
| Simon Willison | 17.29250000000000 |
| James Gosling | 17.98752500000000 |
| Rod Johnson   | 21.06139000000000 |
| Satoshi Nakamoto | 31.52490000000000 |
+-----+-----+
11 rows in set (1.751 sec)
```

No 5 Query
(as Plain Text)

```
select upper(name) as UpperCase, joining_date from Developers order by joining_date desc;
```

No 5 SS
(of Query & Output
in Shell)

```
MariaDB [Google_22201421]> select upper(name) as UpperCase, joining_date from Developers order by joining_date desc;
+-----+-----+
| UpperCase | 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 (0.001 sec)
```

| | |
|---|---|
| No 6 Query (as Plain Text) | select member_id,name,email,followers from Developers where email like '%.com%' or email like '%.net%'; |
| No 6 SS (of Query & Output in Shell) | <pre> MariaDB [Google_22201421]> 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 (1.659 sec) </pre> |
| | |
| No 7 Query (as Plain Text) | |
| No 7 SS (of Query & Output in Shell) | |
| | |