**Department of Computer Science and Engineering**

| **Course Code: CSE 370** | **Credits: 3.0** |
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| **Course Name: Database Systems** | **Semester: Fall 23** |

**Lab Assignment 1**

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 one the tables of one of the project databases. the table name is **"Developers"** which is shown below.

| **member\_id** | **name** | **email** | **influence\_count** | **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@djangoproject.com | 570724 | 2020-05-07 | 5 |
| 9 | Simon Willison | simon@djangoproject.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 [8 \* 2 = 16].

1. Create the above table with appropriate data type for each column.
2. Change the column name “influence\_count”. The new name should be “followers” and the data type should be integer.
3. Update the number of followers of each developer by +10.
4. There is a formula to find the efficiency of the developers. Efficiency = ((followers\*100/1000000) \* (multipliers\*100/20))/100. Show the efficiency of each developer in a column named “Efficiency” along with their name.
5. Show the name and email of the developers who have the 5 highest numbers of followers.
6. Show the name of all users with the maximum multiplier among the developers whose number of followers is less than 700000.
7. Find the average of the number of followers but only consider the members who joined before 11 June 2020.
8. Retrieve the member\_ id, name, email and followers of the developers who have either “.com” or “.net” in their email address.