CS 262 : Database Management System Laboratory

Midsem Lab Report
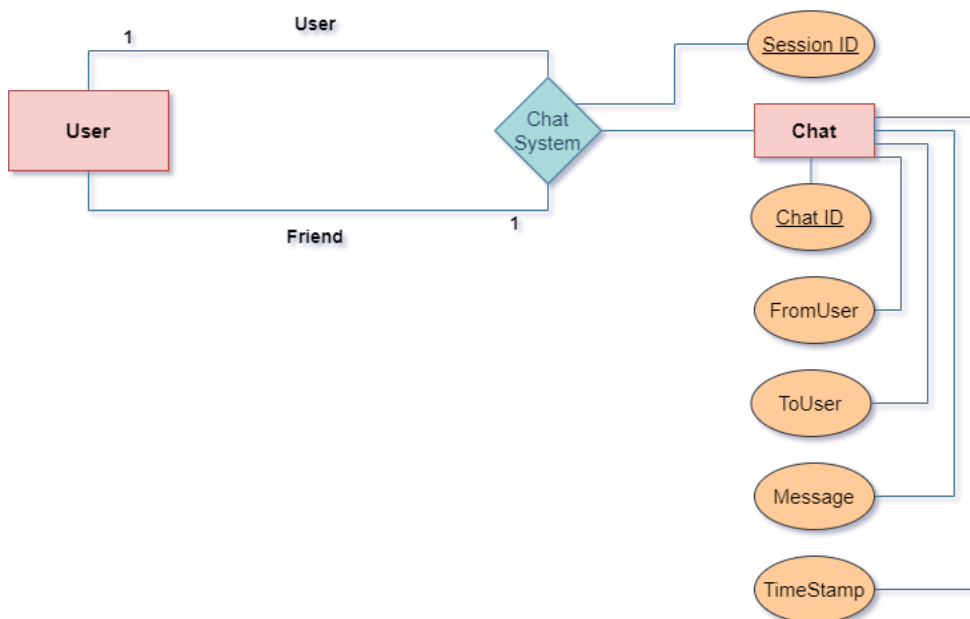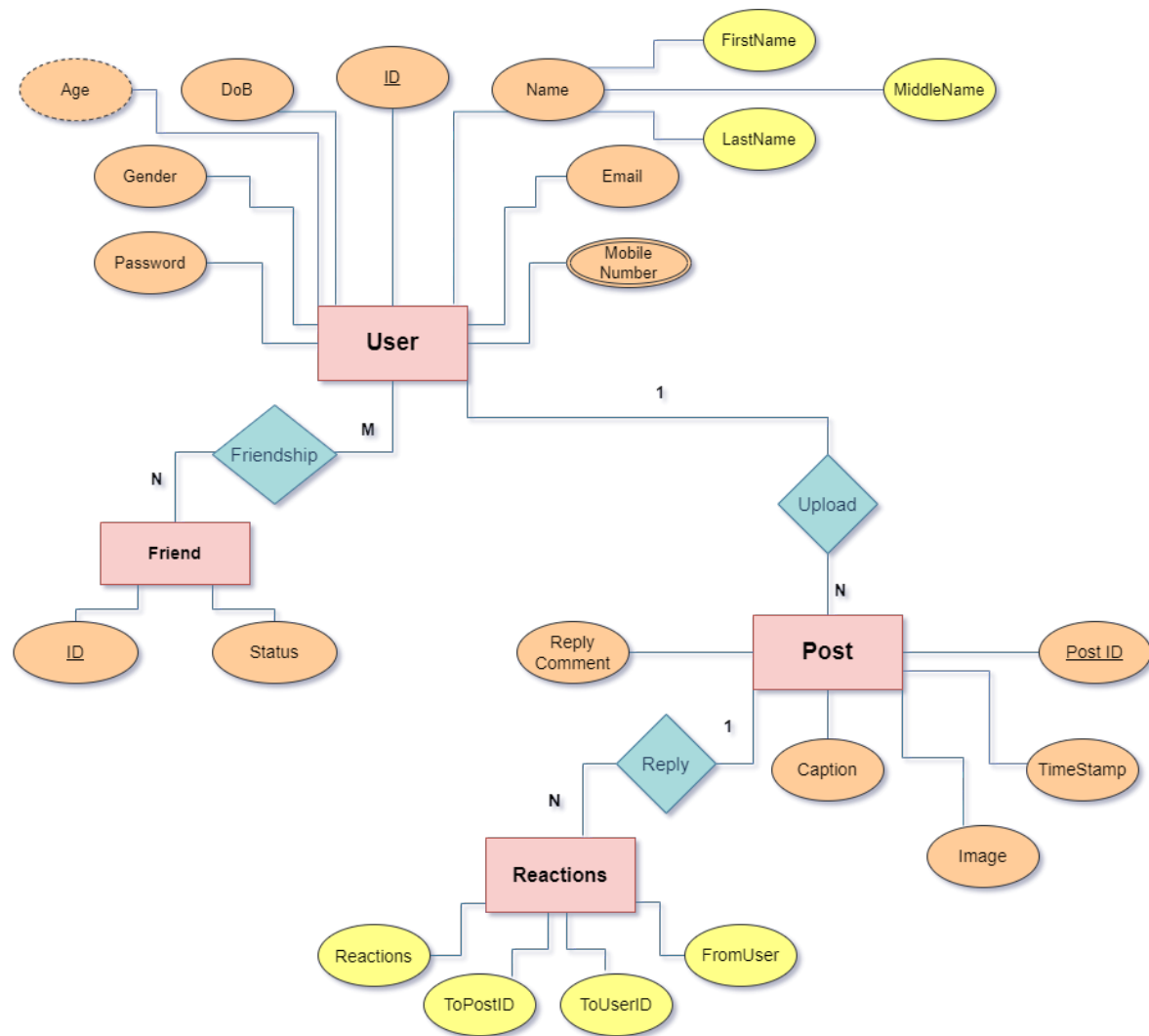
Project Name   : Social Media Website

Group Number   : Group 14

Group TA   : Atul Sharma Sir (202171002)

Group Members :

Roll No	Name
202051116	MAYANK MANGAL MOURYA
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ER Diagram:

EER Diagram:
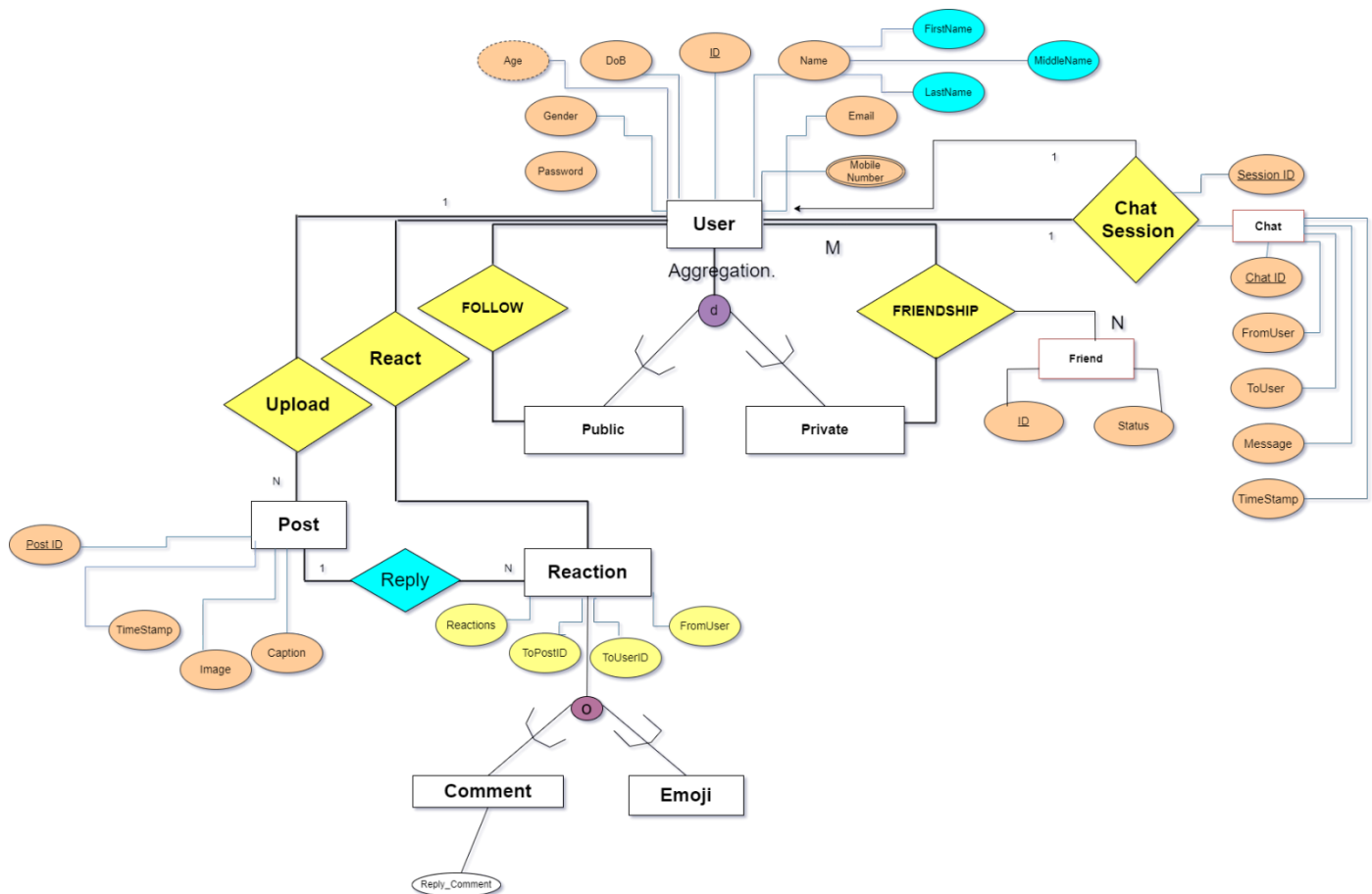
Relation Model:

Steps to convert ER and EER Model to relational model :-

firstly In our ER and EER mode we have entities , sub entities, attributes and their type. thus,

- Create tables for each entity.
- Entity's attributes should become fields of tables with their respective data types.
- We will make every table one column as the primary key for identifying the entity set.
- Then we map two tables with the help of another table in which we will use foreign key.
- With the help of this method we were able to achieve a Relational model.
- Here we have created separate table only for many to many relationship.
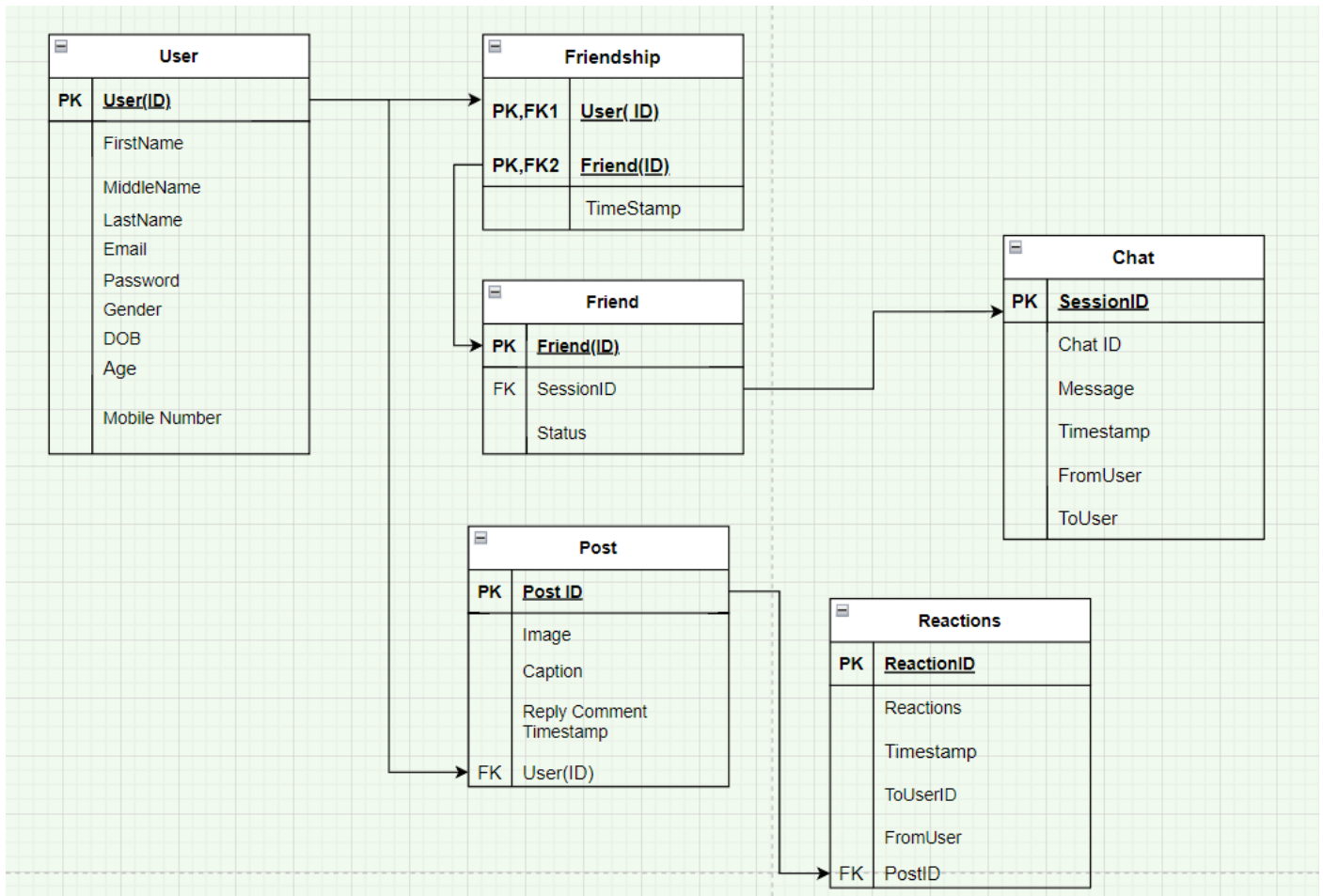
SQL :

1. Create database social networking site.

2. Use social networking site.

3. create table table_name(

      attribute attribute_datatype key_ifany,

      ………………….,

      ……………..

   );

4. describe table table_name;

5. insert into table_name value(……………………);

6. show table using command-

 select * from table_name;

7. show particular column using command -

 select column_name1 column_name2… from table_name.

8. we can also insert value for particular column using command-

 insert into table_name(column_name, column_name2…..) values (value1, value2…..);

9. we can also delete data from table using command-

alter table table_name

drop column column_name;

10. we can also add column using command-

alter table table_name

add column column_name data_type key;

11. we can delete database table using command-

drop table table_name.

12. we can also show particular record using command-

select * from tablename

where "condition";

Lastly we had successfully implemented all queries in our software. screenshot are given below.

```
MySQL 8.0 Command Line Client
Enter password: ********
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 14
Server version: 8.0.27 MySQL Community Server - GPL

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| institute_management |
| mysql              |
| performance_schema |
| sakila             |
| social_networking_site |
| sys                |
| time               |
| world              |
+--------------------+
9 rows in set (0.07 sec)

ERROR:
No query specified

mysql> use social_netwroking_site;
ERROR 1049 (42000): Unknown database 'social_netwroking_site'
mysql> use social_networking_site;
Database changed
mysql> show tables;
+--------------------------------+
| Tables_in_social_networking_site |
+--------------------------------+
| chat                           |
| friend                         |
| friendship                     |
| post                           |
| reactions                      |
| user                           |
+--------------------------------+
6 rows in set (0.07 sec)
```

MySQL 8.0 Command Line Client

```
mysql> describe chat;
+-----------+--------------+------+-----+-------------------+-------------------+
| Field     | Type         | Null | Key | Default           | Extra             |
+-----------+--------------+------+-----+-------------------+-------------------+
| sessionid | int          | NO   | PRI | NULL              |                   |
| chatid    | int          | YES  |     | NULL              |                   |
| message   | varchar(200) | YES  |     | NULL              |                   |
| fromuser  | int          | YES  |     | NULL              |                   |
| touser    | int          | YES  |     | NULL              |                   |
| timestamp | datetime     | YES  |     | CURRENT_TIMESTAMP | DEFAULT_GENERATED |
+-----------+--------------+------+-----+-------------------+-------------------+
6 rows in set (0.08 sec)

mysql> describe friend;
+------------+-------------+------+-----+---------+-------+
| Field      | Type        | Null | Key | Default | Extra |
+------------+-------------+------+-----+---------+-------+
| friend_id  | int         | NO   | PRI | NULL    |       |
| status     | varchar(10) | YES  |     | NULL    |       |
| session_id | varchar(10) | YES  |     | NULL    |       |
+------------+-------------+------+-----+---------+-------+
3 rows in set (0.00 sec)

mysql> describe friendship;
+-----------+----------+------+-----+-------------------+-------------------+
| Field     | Type     | Null | Key | Default           | Extra             |
+-----------+----------+------+-----+-------------------+-------------------+
| UserId    | int      | YES  |     | NULL              |                   |
| friend_id | int      | YES  |     | NULL              |                   |
| timestamp | datetime | YES  |     | CURRENT_TIMESTAMP | DEFAULT_GENERATED |
+-----------+----------+------+-----+-------------------+-------------------+
3 rows in set (0.00 sec)

mysql> describe post;
+---------------+--------------+------+-----+-------------------+-------------------+
| Field         | Type         | Null | Key | Default           | Extra             |
+---------------+--------------+------+-----+-------------------+-------------------+
| postid        | int          | NO   | PRI | NULL              |                   |
| Image         | varchar(20)  | YES  |     | NULL              |                   |
| caption       | varchar(100) | YES  |     | NULL              |                   |
| reply_comment | varchar(100) | YES  |     | NULL              |                   |
| UserId        | int          | YES  |     | NULL              |                   |
| timestamp     | datetime     | YES  |     | CURRENT_TIMESTAMP | DEFAULT_GENERATED |
+---------------+--------------+------+-----+-------------------+-------------------+
6 rows in set (0.00 sec)

mysql> describe reactions;
```

MySQL 8.0 Command Line Client

```
mysql> describe reactions;
+------------+--------------+------+-----+-------------------+-------------------+
| Field      | Type         | Null | Key | Default           | Extra             |
+------------+--------------+------+-----+-------------------+-------------------+
| reactionid | int          | NO   | PRI | NULL              |                   |
| reaction   | varchar(100) | YES  |     | NULL              |                   |
| touser     | int          | YES  |     | NULL              |                   |
| fromuser   | int          | YES  |     | NULL              |                   |
| postid     | int          | YES  |     | NULL              |                   |
| timestamp  | datetime     | YES  |     | CURRENT_TIMESTAMP | DEFAULT_GENERATED |
+------------+--------------+------+-----+-------------------+-------------------+
6 rows in set (0.00 sec)

mysql> describe user;
+---------------+-------------+------+-----+---------+-------+
| Field         | Type        | Null | Key | Default | Extra |
+---------------+-------------+------+-----+---------+-------+
| UserId        | int         | NO   | PRI | NULL    |       |
| Fname         | varchar(10) | YES  |     | NULL    |       |
| Mname         | varchar(10) | YES  |     | NULL    |       |
| Lname         | varchar(10) | YES  |     | NULL    |       |
| Gender        | char(1)     | YES  |     | NULL    |       |
| Email         | varchar(20) | YES  |     | NULL    |       |
| Password      | varchar(20) | YES  |     | NULL    |       |
| Date_of_Birth | date        | YES  |     | NULL    |       |
| Age           | int         | YES  |     | NULL    |       |
| Mobile_Number | varchar(10) | YES  |     | NULL    |       |
+---------------+-------------+------+-----+---------+-------+
10 rows in set (0.00 sec)

mysql> select * from user;
+--------+---------+--------+--------+--------+--------------------+----------+------------+------+---------------+
| UserId | Fname   | Mname  | Lname  | Gender | Email              | Password | Date_of_Birth | Age | Mobile_Number |
+--------+---------+--------+--------+--------+--------------------+----------+------------+------+---------------+
|      1 | Mayank  | Mangal | Mourya | M      | 202051116@gmail.com | 1234maya | 2002-10-14 |   20 | 9893635036    |
|      2 | shivam  | kumar  | mishra | M      | 202051113@gmail.com | 2323dfdf | 0000-00-00 |   20 | 9981234562    |
|      3 | Raj     | kumar  | mishra | M      | 20205189@gmail.com  | 2323efef | 2012-02-16 |   20 | 9179666315    |
|      4 | Shivani |        | Sen    | F      | 20204122@gmail.com  | sdfg123e | 2003-08-12 |   20 | 9988765421    |
+--------+---------+--------+--------+--------+--------------------+----------+------------+------+---------------+
4 rows in set (0.04 sec)

mysql> select * from reactions;
+------------+----------------+--------+----------+--------+---------------------+
| reactionid | reaction       | touser | fromuser | postid | timestamp           |
+------------+----------------+--------+----------+--------+---------------------+
|          1 | hello iam this |      1 |        2 |      3 | 2022-03-13 19:13:36 |
+------------+----------------+--------+----------+--------+---------------------+
```

```
MySQL 8.0 Command Line Client

mysql> select * from post;
+--------+----------+---------+---------------+--------+---------------------+
| postid | Image    | caption | reply_comment | UserId | timestamp           |
+--------+----------+---------+---------------+--------+---------------------+
|      1 | img.jpg  | hello   | beautiful     |      2 | 2022-03-13 18:55:38 |
|      2 | img2.jpg | hello   | gorgious      |      1 | 2022-03-13 18:58:35 |
+--------+----------+---------+---------------+--------+---------------------+
2 rows in set (0.04 sec)

mysql> select * from friendship;
+--------+-----------+---------------------+
| UserId | friend_id | timestamp           |
+--------+-----------+---------------------+
|      1 |         2 | 2022-03-13 19:06:46 |
|      2 |         3 | 2022-03-13 19:06:58 |
|      2 |         1 | 2022-03-13 19:07:05 |
+--------+-----------+---------------------+
3 rows in set (0.02 sec)

mysql> select * from friend;
+-----------+--------+------------+
| friend_id | status | session_id |
+-----------+--------+------------+
|         1 | active | session1   |
|         2 | active | session2   |
|         3 | active | session1   |
+-----------+--------+------------+
3 rows in set (0.04 sec)

mysql> select * from chat;
+-----------+--------+------------------------+----------+--------+---------------------+
| sessionid | chatid | message                | fromuser | touser | timestamp           |
+-----------+--------+------------------------+----------+--------+---------------------+
|         1 |    111 | hello                  |        1 |      3 | 2022-03-13 19:24:17 |
|         2 |    121 | hello how can i help you |      1 |      2 | 2022-03-13 19:25:01 |
+-----------+--------+------------------------+----------+--------+---------------------+
2 rows in set (0.00 sec)

mysql> select  message from chat;
+--------------------------+
| message                  |
+--------------------------+
| hello                    |
| hello how can i help you |
+--------------------------+
2 rows in set (0.00 sec)
```

```
MySQL 8.0 Command Line Client

mysql> select sessionid, message from chat;
+-----------+--------------------------+
| sessionid | message                  |
+-----------+--------------------------+
|         1 | hello                    |
|         2 | hello how can i help you |
+-----------+--------------------------+
2 rows in set (0.00 sec)

mysql> select * from friend
    -> where status = 'Active';
+-----------+--------+------------+
| friend_id | status | session_id |
+-----------+--------+------------+
|         1 | active | session1   |
|         2 | active | session2   |
|         3 | active | session1   |
+-----------+--------+------------+
3 rows in set (0.04 sec)

mysql> select * from user;
+--------+---------+--------+--------+--------+--------------------+----------+---------------+-----+---------------+
| UserId | Fname   | Mname  | Lname  | Gender | Email              | Password | Date_of_Birth | Age | Mobile_Number |
+--------+---------+--------+--------+--------+--------------------+----------+---------------+-----+---------------+
|      1 | Mayank  | Mangal | Mourya | M      | 202051116@gmail.com | 1234maya | 2002-10-14   |  20 | 9893635036    |
|      2 | shivam  | kumar  | mishra | M      | 202051113@gmail.com | 2323dfdf | 0000-00-00   |  20 | 9981234562    |
|      3 | Raj     | kumar  | mishra | M      | 20205189@gmail.com  | 2323efef | 2012-02-16   |  20 | 9179666315    |
|      4 | Shivani |        | Sen    | F      | 20204122@gmail.com  | sdfg123e | 2003-08-12   |  20 | 9988765421    |
+--------+---------+--------+--------+--------+--------------------+----------+---------------+-----+---------------+
4 rows in set (0.00 sec)

mysql> select fname, mname from user;
+---------+--------+
| fname   | mname  |
+---------+--------+
| Mayank  | Mangal |
| shivam  | kumar  |
| Raj     | kumar  |
| Shivani |        |
+---------+--------+
4 rows in set (0.00 sec)

mysql> select fname, mname from user;
+---------+--------+
| fname   | mname  |
+---------+--------+
| Mayank  | Mangal |
```

```
MySQL 8.0 Command Line Client                                                          −  □  X

mysql> select * from user;
+--------+---------+---------+--------+--------+----------------------+----------+---------------+------+---------------+
| UserId | Fname   | Mname   | Lname  | Gender | Email                | Password | Date_of_Birth | Age  | Mobile_Number |
+--------+---------+---------+--------+--------+----------------------+----------+---------------+------+---------------+
|      1 | Mayank  | Mangal  | Mourya | M      | 202051116@gmail.com  | 1234maya | 2002-10-14    |   20 | 9893635036    |
|      2 | shivam  | kumar   | mishra | M      | 202051113@gmail.com  | 2323dfdf | 0000-00-00    |   20 | 9981234562    |
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|      4 | Shivani |         | Sen    | F      | 20204122@gmail.com   | sdfg123e | 2003-08-12    |   20 | 9988765421    |
+--------+---------+---------+--------+--------+----------------------+----------+---------------+------+---------------+
4 rows in set (0.00 sec)

mysql> select fname, mname from user;
+---------+--------+
| fname   | mname  |
+---------+--------+
| Mayank  | Mangal |
| shivam  | kumar  |
| Raj     | kumar  |
| Shivani |        |
+---------+--------+
4 rows in set (0.00 sec)

mysql> select fname, mname from user;
+---------+--------+
| fname   | mname  |
+---------+--------+
| Mayank  | Mangal |
| shivam  | kumar  |
| Raj     | kumar  |
| Shivani |        |
+---------+--------+
4 rows in set (0.00 sec)

mysql> select fname, mname from user
    -> where userid = 2;
+--------+-------+
| fname  | mname |
+--------+-------+
| shivam | kumar |
+--------+-------+
1 row in set (0.00 sec)

mysql>
```