Relational Databases with MySQL Week 9 Coding Assignment

Points possible: 70

Category	Criteria	% of Grade
Functionality	Does the code work?	25
Organization	Is the code clean and organized? Proper use of white space, syntax, and consistency are utilized. Names and comments are concise and clear.	25
Creativity	Student solved the problems presented in the assignment using creativity and out of the box thinking.	25
Completeness	All requirements of the assignment are complete.	25

Instructions: Using a text editor of your choice, write the queries that accomplishes the objectives listed below. Take screenshots of the queries and results and paste them in this document where instructed below. Create a new repository on GitHub for this week's assignments and push this document to the repository. Additionally, push an .sql file with all your queries and your ERD to the same repository. Add the URL for this week's repository to this document where instructed and submit this document to your instructor when complete.

Coding Steps:

You have been asked to create a database for a new social media application that your company is developing.

The database must store user data such as username, email, password, etc...

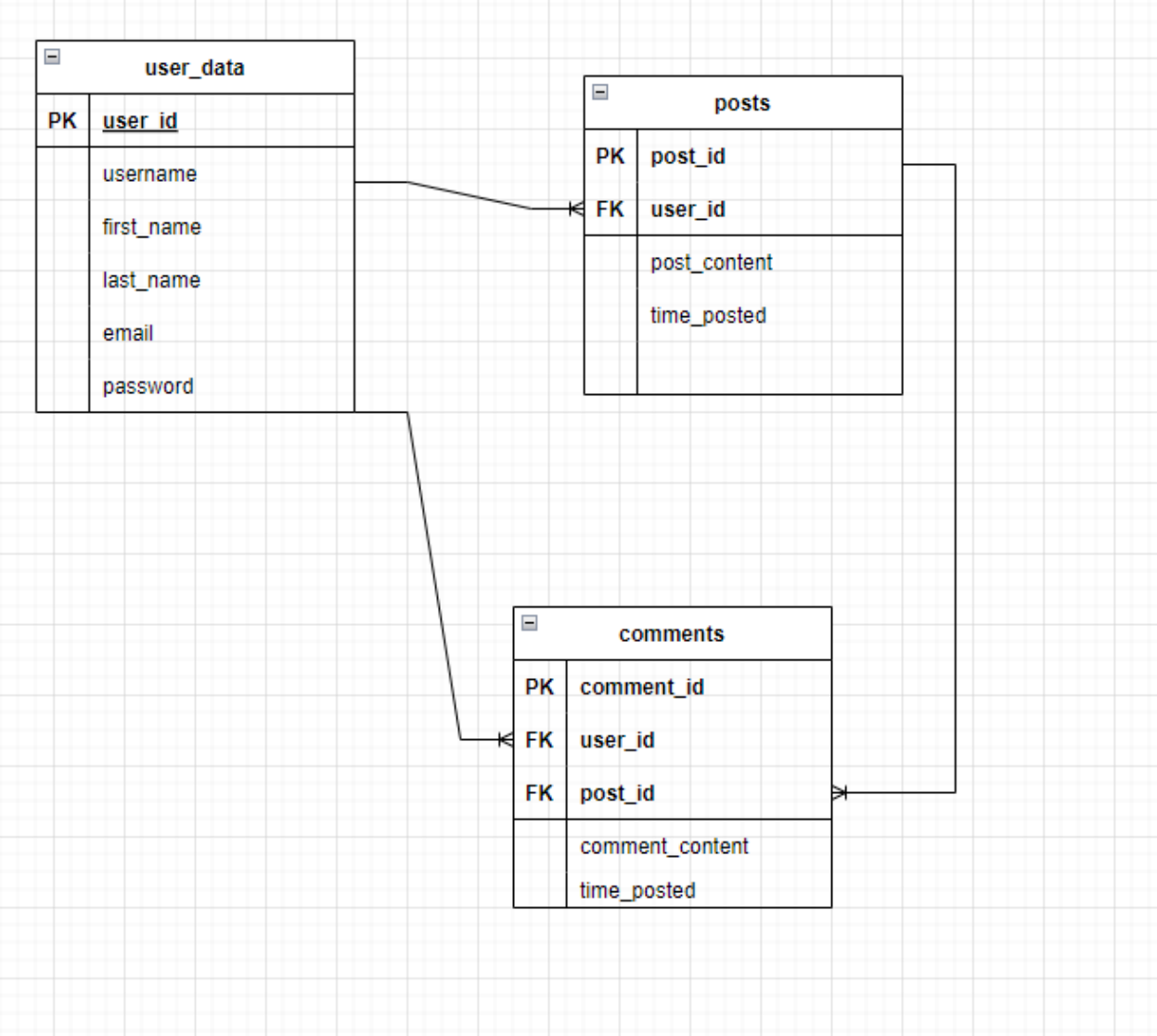
Users are able to post and comment. So, your database must also store post and comment data.

We need to know which user made which posts.

We also need to know which user made which comments, and which post a comment is on.

Posts and comments should both include the time they were created, and what the content of the post or comment is.

Create an Entity Relationship Diagram (ERD) using draw.io to model the database you will create. Insert a screenshot of the ERD in the screenshots section below.


user_data
PK
user_id
username
first_name
last_name
email
password
posts
PK
post_id
FK
user_id
post_content
time_posted
comments
PK
comment_id
FK
user_id
FK
post_id
comment_content
time_posted

Write a SQL script to create the database. Insert a screenshot of the SQL in your script.

Hints:

You will only need three tables.

Two tables will have foreign key references.

One table will have two foreign key references.

Screenshots:

```
create database if not exists socialmedia;

use socialmedia;

drop table if exists comments;
drop table if exists posts;
drop table if exists user_data;

CREATE TABLE user_data (
        user_id int(11) not null auto_increment,
        username varchar(20) not null,
        first_name varchar(20) not null,
        last_name varchar(20) not null,
        email varchar(40) not null,
        primary key (user_id)
);

CREATE TABLE posts (
        post_id int(11) not null auto_increment,
        user_id int(11) not null,
        post_content varchar(255),
        time_posted datetime default current_timestamp,
        primary key (post_id),
        foreign key (user_id) references user_data(user_id)
);

CREATE TABLE comments (
        comment_id int(11) not null auto_increment,
        user_id int(11) not null,
        post_id int(11) not null,
        comment_content varchar(255),
        time_posted datetime default current_timestamp,
        primary key (comment_id),
        foreign key (user_id) references user_data(user_id),
        foreign key (post_id) references posts(post_id)
);
```

```
mysql> use socialmedia;
Database changed
mysql> show tables;
+----------------------+
| Tables_in_socialmedia |
+----------------------+
| comments             |
| posts                |
| user_data            |
+----------------------+
3 rows in set (0.02 sec)

mysql> desc user_data;
+------------+-------------+------+-----+---------+----------------+
| Field      | Type        | Null | Key | Default | Extra          |
+------------+-------------+------+-----+---------+----------------+
| user_id    | int         | NO   | PRI | NULL    | auto_increment |
| username   | varchar(20) | NO   |     | NULL    |                |
| first_name | varchar(20) | NO   |     | NULL    |                |
| last_name  | varchar(20) | NO   |     | NULL    |                |
| email      | varchar(40) | NO   |     | NULL    |                |
+------------+-------------+------+-----+---------+----------------+
5 rows in set (0.01 sec)

mysql> desc posts;
+--------------+--------------+------+-----+-------------------+-------------------+
| Field        | Type         | Null | Key | Default           | Extra             |
+--------------+--------------+------+-----+-------------------+-------------------+
| post_id      | int          | NO   | PRI | NULL              | auto_increment    |
| user_id      | int          | NO   | MUL | NULL              |                   |
| post_content | varchar(255) | YES  |     | NULL              |                   |
| time_posted  | datetime     | YES  |     | CURRENT_TIMESTAMP | DEFAULT_GENERATED |
+--------------+--------------+------+-----+-------------------+-------------------+
4 rows in set (0.02 sec)

mysql> desc comments;
+-----------------+--------------+------+-----+-------------------+-------------------+
| Field           | Type         | Null | Key | Default           | Extra             |
+-----------------+--------------+------+-----+-------------------+-------------------+
| comment_id      | int          | NO   | PRI | NULL              | auto_increment    |
| user_id         | int          | NO   | MUL | NULL              |                   |
| post_id         | int          | NO   | MUL | NULL              |                   |
| comment_content | varchar(255) | YES  |     | NULL              |                   |
| time_posted     | datetime     | YES  |     | CURRENT_TIMESTAMP | DEFAULT_GENERATED |
+-----------------+--------------+------+-----+-------------------+-------------------+
5 rows in set (0.01 sec)
```

URL to GitHub Repository:

https://github.com/dfleeman/Week9_MySQL