Relational Databases with MySQL Week 3 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, with your Java project code, to the 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.

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

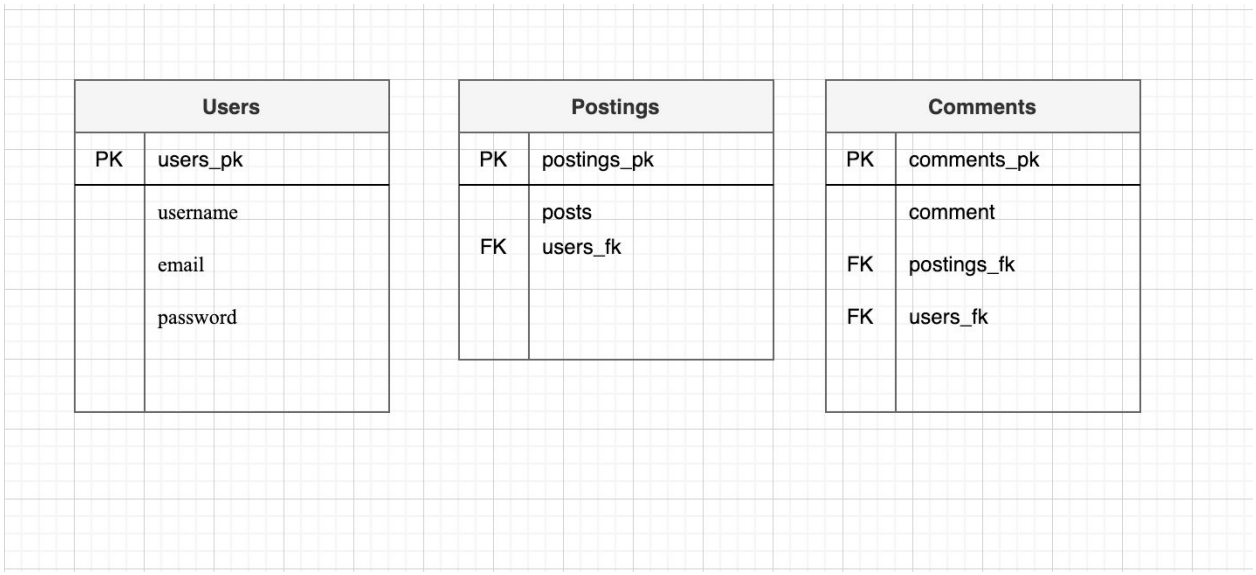
Hints:

You will only need three tables.

Two tables will have foreign key references.

One table will have two foreign key references.

Screenshots:




```sql
CREATE DATABASE IF NOT EXISTS social_media;
USE social_media;

CREATE TABLE IF NOT EXISTS users (
    users_id_pk INT AUTO_INCREMENT PRIMARY KEY,
    username VARCHAR(25) NOT NULL,
    email VARCHAR(100) NOT NULL,
    password VARCHAR(100) NOT NULL
);

CREATE TABLE IF NOT EXISTS postings (
    postings_id_pk INT AUTO_INCREMENT PRIMARY KEY,
    post TEXT NOT NULL,
    users_id_fk INT,
    FOREIGN KEY (users_id_fk) REFERENCES users (users_id_pk) ON UPDATE RESTRICT ON DELETE CASCADE
);

CREATE TABLE IF NOT EXISTS comments (
    comments_id_pk INT AUTO_INCREMENT PRIMARY KEY,
    comment VARCHAR(255) NOT NULL,
    postings_id_fk INT,
    users_id_fk INT,
    FOREIGN KEY (postings_id_fk) REFERENCES postings (postings_id_pk) ON UPDATE RESTRICT ON DELETE CASCADE,
    FOREIGN KEY (users_id_fk) REFERENCES users (users_id_pk) ON UPDATE RESTRICT ON DELETE CASCADE
);

INSERT INTO users (username, email, password) VALUES ('bob', 'bob@gmail.com', 'bobsmith123');
INSERT INTO postings (post, users_id_fk) VALUES ('Tweeting from code!', 2);
INSERT INTO comments (comment, postings_id_fk, users_id_fk) VALUES ('Commenting on daisys post!', 2, 2);
```


```
mysql> CREATE DATABASE IF NOT EXISTS social_media;
Query OK, 1 row affected (0.01 sec)

mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| employees          |
| information_schema |
| mysql              |
| performance_schema |
| social_media       |
| sys                |
+--------------------+
6 rows in set (0.00 sec)

mysql> USE social_media;
Database changed
mysql> show tables;
Empty set (0.01 sec)

mysql> CREATE TABLE IF NOT EXISTS users (
    ->     users_id_pk INT AUTO_INCREMENT PRIMARY KEY,
    ->     username VARCHAR(25) NOT NULL,
    ->     email VARCHAR(100) NOT NULL,
    ->     password VARCHAR(100) NOT NULL
    -> );
Query OK, 0 rows affected (0.02 sec)

mysql>
mysql>
mysql>
mysql> CREATE TABLE IF NOT EXISTS postings (
    ->     postings_id_pk INT AUTO_INCREMENT PRIMARY KEY,
    ->     post TEXT NOT NULL,
    ->     users_id_fk INT,
    ->     FOREIGN KEY (users_id_fk) REFERENCES users (users_id_pk) ON UPDATE RESTRICT ON DELETE CASCADE
    -> );
Query OK, 0 rows affected (0.01 sec)

mysql>
mysql>
mysql> CREATE TABLE IF NOT EXISTS comments (
    ->     comments_id_pk INT AUTO_INCREMENT PRIMARY KEY,
    ->     comment VARCHAR(255) NOT NULL,
    ->     postings_id_fk INT,
    ->     users_id_fk INT,
    ->     FOREIGN KEY (postings_id_fk) REFERENCES postings (postings_id_pk) ON UPDATE RESTRICT ON DELETE CASCADE,
    ->     FOREIGN KEY (users_id_fk) REFERENCES users (users_id_pk) ON UPDATE RESTRICT ON DELETE CASCADE
    -> );
Query OK, 0 rows affected (0.02 sec)

mysql>
```

URL to GitHub Repository:

https://github.com/daisymdev/week_9_assignment