

# 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:

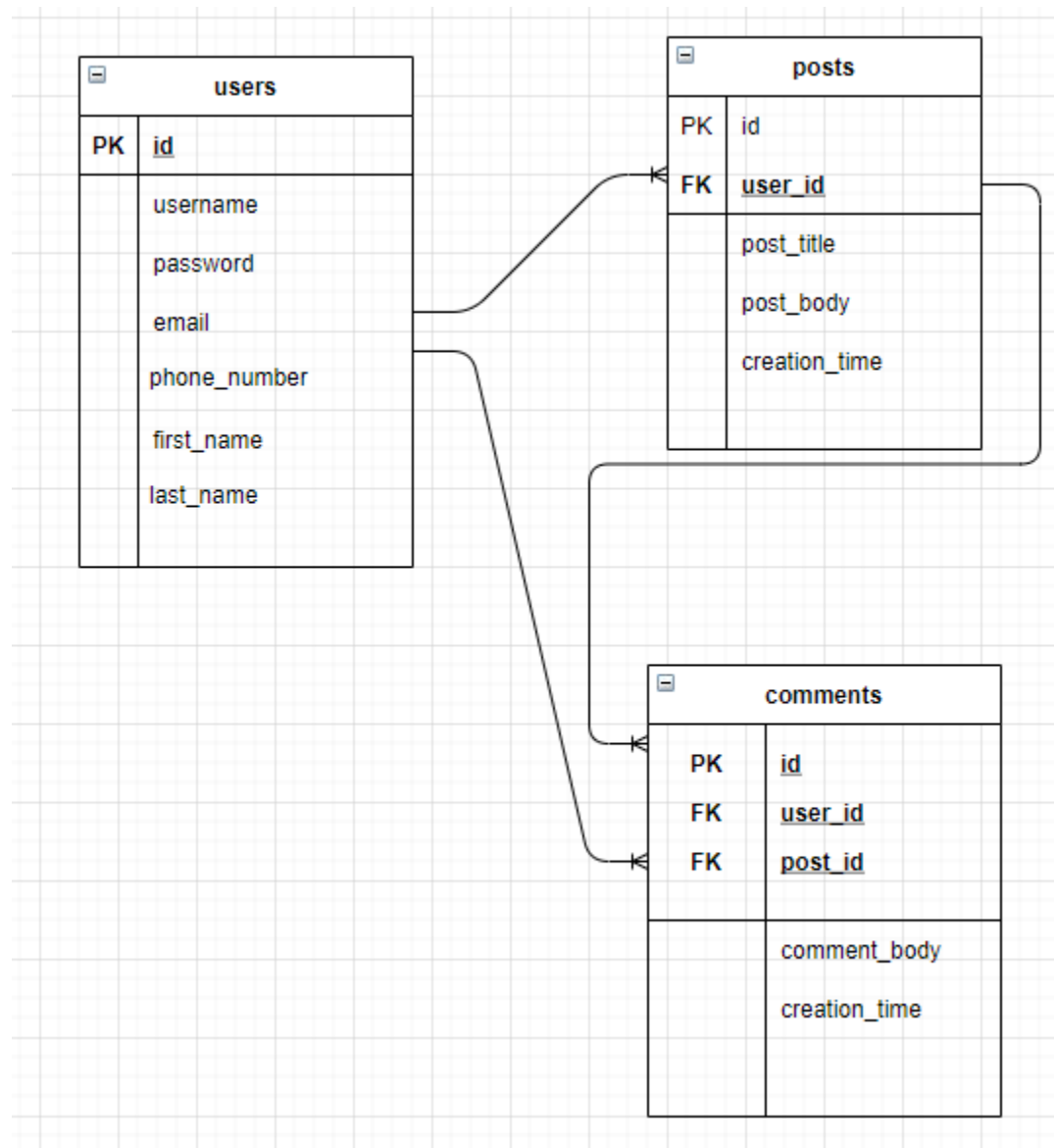
You will only need three tables.

Two tables will have foreign key references.

One table will have two foreign key references.

**Screenshots:**

**ERD -**



**Create the socialmedia database –**

```
create database if not exists socialmedia;  
use socialmedia;
```

### Drop the three tables: users, posts, comments, if they already exist –

```
drop table if exists comments;  
drop table if exists posts;  
drop table if exists users;
```

### Create the users Table –

```
CREATE TABLE users(  
    id int(11) not null auto_increment,  
    username varchar(30) not null,  
    password varchar(15) not null,  
    email varchar(50) not null,  
    phone_number varchar(16) not null,  
    first_name varchar(20),  
    last_name varchar(20),  
    primary key(id)  
);
```

### Create the posts Table –

```
CREATE TABLE posts(  
    id int(11) not null auto_increment,  
    user_id int(11) not null,  
    post_title varchar(100) not null,  
    post_body Text not null,  
    creation_time DATETIME default now(),  
    primary key(id),  
    foreign key (user_id) references users(id)  
);
```

### Create the comments Table –

```

CREATE TABLE comments(
  id int(11) not null auto_increment,
  user_id int(11) not null,
  post_id int(11) not null,
  comment_body Text not null,
  creation_time DATETIME default now(),
  primary key(id),
  foreign key (user_id) references users(id),
  foreign key (post_id) references posts(id)
);

```

Show the three tables: users, posts, comments in the socialmedia database -

```

mysql> use socialmedia;
Database changed
mysql> show tables;
+-----+
| Tables_in_socialmedia |
+-----+
| comments               |
| posts                  |
| users                  |
+-----+
3 rows in set (0.00 sec)

```

Describe (show) the users Table -

```

mysql> desc users;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra          |
+-----+-----+-----+-----+-----+-----+
| id         | int           | NO   | PRI | NULL    | auto_increment |
| username   | varchar(30)   | NO   |     | NULL    |                 |
| password   | varchar(15)   | NO   |     | NULL    |                 |
| email      | varchar(50)   | NO   |     | NULL    |                 |
| phone_number | varchar(16)   | NO   |     | NULL    |                 |
| first_name | varchar(20)   | YES  |     | NULL    |                 |
| last_name  | varchar(20)   | YES  |     | NULL    |                 |
+-----+-----+-----+-----+-----+-----+
7 rows in set (0.00 sec)

```

Describe (show) the posts Table -

```

mysql> desc posts;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default          | Extra          |
+-----+-----+-----+-----+-----+-----+
| id         | int           | NO   | PRI | NULL             | auto_increment |
| user_id    | int           | NO   | MUL | NULL             |                 |
| post_title | varchar(100)  | NO   |     | NULL             |                 |
| post_body  | text          | NO   |     | NULL             |                 |
| creation_time | datetime      | YES  |     | CURRENT_TIMESTAMP | DEFAULT_GENERATED |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

```

### Describe (show) the comments Table -

```
mysql> desc comments;
```

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	auto_increment
user_id	int	NO	MUL	NULL	
post_id	int	NO	MUL	NULL	
comment_body	text	NO		NULL	
creation_time	datetime	YES		CURRENT_TIMESTAMP	DEFAULT_GENERATED

5 rows in set (0.00 sec)

### URL to GitHub Repository:

[GitHub - MamtaGit-personal/MySQL-week3](https://github.com/MamtaGit-personal/MySQL-week3)