

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.

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

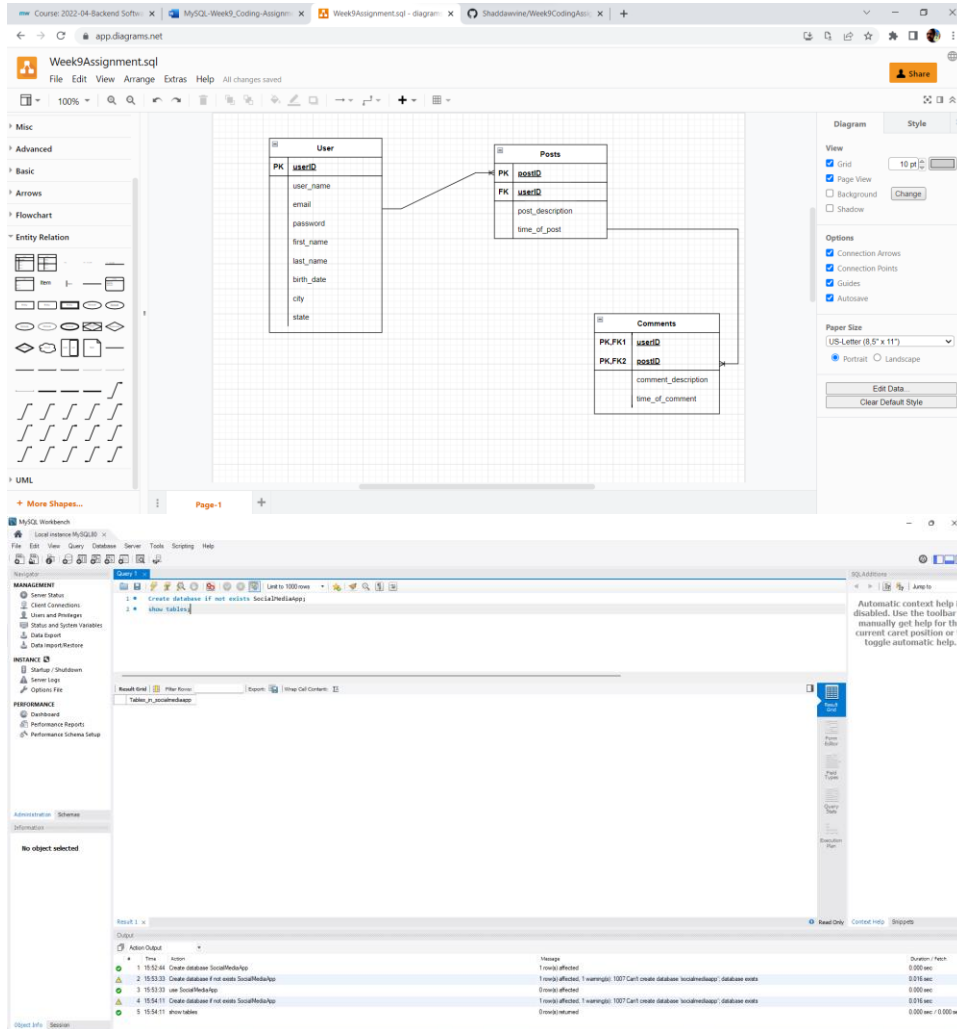
Hints:

You will only need three tables.

Two tables will have foreign key references.

One table will have two foreign key references.

Screenshots:



MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

MANAGEMENT

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- Status and System Variables
- Data Export
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PERFORMANCE

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Administration Schemas

Information

No object selected

Query 1

```
1 create table user (
2   userID int not null auto_increment,
3   user_name varchar(20) not null,
4   email varchar(40) not null,
5   password varchar(20) not null,
6   first_name varchar(20),
7   last_name varchar(20),
8   birth_date date not null,
9   city varchar(20) not null,
10  state char(2) not null,
11  primary key (userID)
12 )
```

SQL Assistant

Automatic content help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Output

Action Output

| # | Time | Action | Message | Duration / Path |
|---|----------|--|---|-----------------------|
| 1 | 15:53:33 | use SocialMediaApp | Successfully affected. | 0.000 sec |
| 2 | 15:54:11 | Create database if not exists SocialMediaApp | Successfully affected. 1 warning(s): 1007 Can't create database 'socialmediaapp'; database exists | 0.016 sec |
| 3 | 15:54:11 | show tables | Successfully returned | 0.000 sec / 0.000 sec |
| 4 | 15:54:46 | Create table user(userID int not null auto_increment, user_name varchar(20) not null, email varchar(40) not null, password varchar(20) not null, first_name varchar(20), last_name varchar(20), birth_date date not null, city varchar(20) not null, state char(2) not null, primary key (userID)) | Error Code: 1075. Incorrect table definition; there can be only one auto column and it must be defined as a key | 0.015 sec |
| 5 | 15:56:36 | Create table user(userID int not null auto_increment, user_name varchar(20) not null, email varchar(40) not null, password varchar(20) not null, first_name varchar(20), last_name varchar(20), birth_date date not null, city varchar(20) not null, state char(2) not null, primary key (userID)) | Successfully affected. 1 warning(s): 1081 Integer display width is deprecated and will be removed in a future release | 0.002 sec |
| 6 | 15:57:41 | Create table user(userID int not null auto_increment, user_name varchar(20) not null, email varchar(40) not null, password varchar(20) not null, first_name varchar(20), last_name varchar(20), birth_date date not null, city varchar(20) not null, state char(2) not null, primary key (userID)) | Error Code: 1050. Table 'user' already exists | 0.002 sec |

Object Info Session

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Information

No object selected

Query 1

```
1 desc user
```

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Output

Action Output

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|---|----------|--|---|-----------------------|
| 1 | 15:54:11 | use SocialMediaApp | Successfully affected. | 0.000 sec |
| 2 | 15:54:11 | show tables | Successfully returned | 0.000 sec / 0.000 sec |
| 3 | 15:54:46 | Create table user(userID int not null auto_increment, user_name varchar(20) not null, email varchar(40) not null, password varchar(20) not null, first_name varchar(20), last_name varchar(20), birth_date date not null, city varchar(20) not null, state char(2) not null, primary key (userID)) | Error Code: 1075. Incorrect table definition; there can be only one auto column and it must be defined as a key | 0.015 sec |
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| 6 | 15:58:42 | desc user | Successfully returned | 0.015 sec / 0.000 sec |

Object Info Session

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Information

No object selected

Query 1

```
1 create table posts (
2   postID int not null auto_increment,
3   userID int not null,
4   post_description varchar(100) not null,
5   time_of_post datetime default current_timestamp,
6   primary key (postID),
7   foreign key (userID) references user(userID)
8 )
```

SQL Assistant

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Output

Action Output

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|---|----------|--|---|-----------------------|
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| 3 | 15:56:36 | Create table user(userID int not null auto_increment, user_name varchar(20) not null, email varchar(40) not null, password varchar(20) not null, first_name varchar(20), last_name varchar(20), birth_date date not null, city varchar(20) not null, state char(2) not null, primary key (userID)) | Successfully affected. 1 warning(s): 1081 Integer display width is deprecated and will be removed in a future release | 0.002 sec |
| 4 | 15:57:41 | Create table user(userID int not null auto_increment, user_name varchar(20) not null, email varchar(40) not null, password varchar(20) not null, first_name varchar(20), last_name varchar(20), birth_date date not null, city varchar(20) not null, state char(2) not null, primary key (userID)) | Error Code: 1050. Table 'user' already exists | 0.002 sec |
| 5 | 15:58:42 | desc user | Successfully returned | 0.015 sec / 0.000 sec |
| 6 | 15:58:21 | Create table posts(postID int not null auto_increment, userID int not null, post_description varchar(100) not null, time_of_post datetime default current_timestamp, primary key (postID), foreign key (userID) references user(userID)) | Successfully affected | 0.046 sec |

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Information

No object selected

SQL Editor

1 desc posts

Result Grid

| Field | Type | Null | Key | Default | Extra |
|---------------------|--------------|------|-----|-------------------|-------------------|
| postId | int | NO | PK | BIG | auto_increment |
| userId | int | NO | FK | BIG | |
| comment_description | varchar(500) | NO | | | |
| time_of_post | datetime | YES | | CURRENT_TIMESTAMP | DEFAULT_GENERATED |

Result 1

Output

Table Output

| Time | Action | Message | Duration / Pct% |
|-------------|--|---|-----------------------|
| 7 16:26:36 | Create table user(userId int not null auto_increment, user_name varchar(20) not null, email varchar(50) not null, password varchar(15) not null, first_name varchar(15) not null, last_name varchar(15) not null, bio varchar(100) not null, profile_picture varchar(100) not null, time_of_creation datetime default current_timestamp, primary key (userId), foreign key (userId) references user(userId)) | 0 rows affected, 1 warning(s): 101 Integer display width is deprecated and will be removed in a future release. | 0.002 sec |
| 8 16:27:41 | Create table posts(postId int not null auto_increment, userId int not null, comment_description varchar(500) not null, time_of_post datetime default current_timestamp, foreign key (postId) references posts(postId)) | Error Code: 1000 Table 'user' already exists | 0.002 sec |
| 9 16:28:42 | desc user | 0 rows returned | 0.015 sec < 0.000 sec |
| 10 16:28:51 | Create table posts(postId int not null auto_increment, userId int not null, comment_description varchar(500) not null, time_of_post datetime default current_timestamp, foreign key (postId) references posts(postId)) | 0 rows affected | 0.046 sec |
| 11 16:28:51 | desc posts | 0 rows returned | 0.000 sec < 0.000 sec |
| 12 16:29:22 | Create table comments(userId int not null, postId int not null, comment_description varchar(500) not null, time_of_comment datetime default current_timestamp, foreign key (userId) references user(userId), foreign key (postId) references posts(postId)) | 0 rows affected | 0.003 sec |

Object Info Session

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Information

No object selected

SQL Editor

1 create table comments(userId int not null, postId int not null, comment_description varchar(500) not null, time_of_comment datetime default current_timestamp, foreign key (userId) references user(userId), foreign key (postId) references posts(postId))

Result Grid

Output

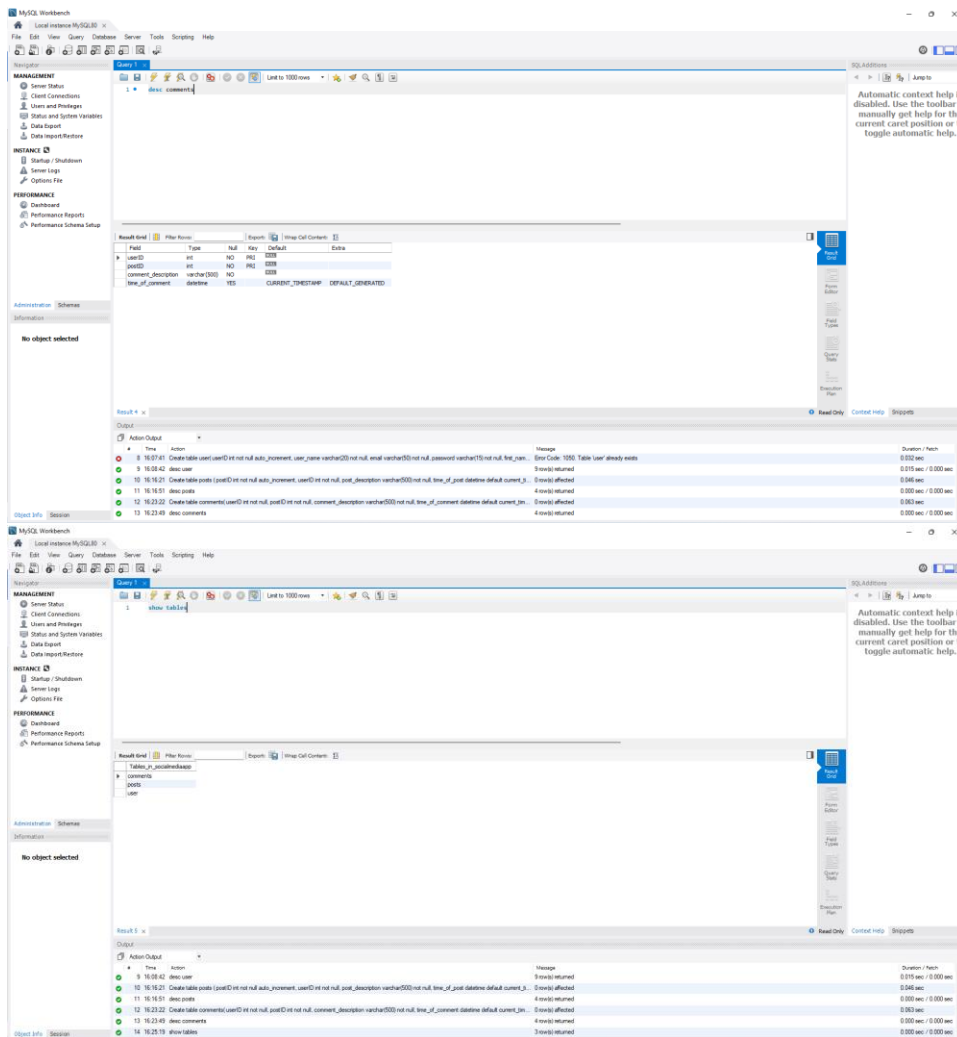
Table Output

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SQL Assistant

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URL to GitHub Repository: <https://github.com/Shaddawvine/Week9CodingAssignment>