## Lab Exercise 7

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The purpose of this lab is to practice MySQL, and implement simple registration and login forms using MySQL, Cookies and Session.

#### **SQL** Queries 1

In this exercise, you are supposed to practice SQL queries. Find imdb\_small.sql file uploaded with this lab exercise in sql folder and set it up on your MySQL instance using phpMyAdmin.

Figure 1 shows an example snapshot from IMDB database:

| id     | first_name | last_name | gender |
|--------|------------|-----------|--------|
| 433259 | William    | Shatner   | M      |
| 797926 | Britney    | Spears    | F      |
| 831289 | Sigourney  | Weaver    | F      |
|        |            |           |        |

| id     | name             | year | rank |
|--------|------------------|------|------|
| 112290 | Fight Club       | 1999 | 8.5  |
| 209658 | Meet the Parents | 2000 | 7    |
| 210511 | Memento          | 2000 | 8.7  |
|        |                  |      |      |

### actors

| actor_id | movie_id | role                |
|----------|----------|---------------------|
| 433259   | 313398   | Capt. James T. Kirk |
| 433259   | 407323   | Sgt. T.J. Hooker    |
| 797926   | 342189   | Herself             |
|          |          |                     |

### movies

| movie_id | genre  |
|----------|--------|
| 209658   | Comedy |
| 313398   | Action |
| 313398   | Sci-Fi |
|          |        |

| id    | first_name | last_name |
|-------|------------|-----------|
| 24758 | David      | Fincher   |
| 66965 | Jay        | Roach     |
| 72723 | William    | Shatner   |
|       |            |           |

#### roles

| director_id | movie_id |
|-------------|----------|
| 24758       | 112290   |
| 66965       | 209658   |
| 72723       | 313398   |
|             |          |

movies directors

movies genres directors

Figure 1: IMDB Database Tables

You can view database scheme given in Figure 2

Write SQL queries for IMDB database that answer following questions. Save your SQL queries in imdb\_queries.sql file.

- 1. What are the names of all movies released in 1995?
- 2. How many people played a part in the movie "Lost in Translation"?
- 3. What are the names of all the people who played a part in the movie "Lost in Translation"?

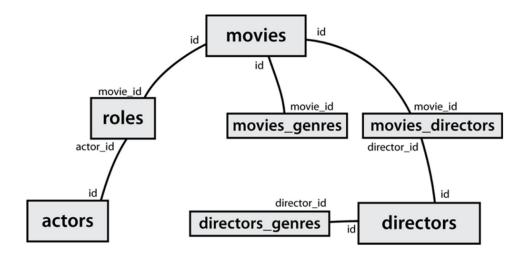


Figure 2: IMDB Database Schema

- 4. Who directed the movie "Fight Club"?
- 5. How many movies has Clint Eastwood directed?
- 6. What are the names of all movies Clint Eastwood has directed?
- 7. What are the names of all directors who have directed at least one horror film?
- 8. What are the names of every actor who has appeared in a movie directed by Christopher Nolan?

# 2 My Blog

In this section, you will create a personal blog which registers users and authenticates them. It will also allow them to make blog posts. Below are the tasks that should be accomplished:

1. Open phpMyAdmin and create a new database named blog. In this database, create 2 tables as specified below:

Table 1: Users

| Field Name | Data Type          |
|------------|--------------------|
| id         | int $(PK^a, AI^b)$ |
| username   | varchar(250)       |
| email      | varchar(250)       |
| password   | varchar(250)       |
| fullname   | varchar(250)       |
| dob        | date               |

<sup>&</sup>lt;sup>a</sup>Primary Key

Table 2: Posts

|   | Field Name  | Data Type                   |
|---|-------------|-----------------------------|
|   | id          | int (PK, AI)                |
|   | title       | varchar(250)                |
|   | body        | text                        |
| ĺ | publishDate | date                        |
|   | userId      | int (FK $^a$ from users.id) |

<sup>&</sup>lt;sup>a</sup>Forein Key

- 2. Review register.php file inside webpage folder. It provides a simple form for user registration. Modify this form to create a new user in users table in blog database when user presses Submit button. After creating the new user, it should redirect user to index.php page. You can use header('Location: index.php'); function to redirect user to index.php page.
- 3. Review index.php file inside webpage folder. It should display login form, add new post form and list of all posts. Modify this form to authenticate user (i.e. find corresponding user from database

<sup>&</sup>lt;sup>b</sup>Autoincrement

and check password) and store his/her details in \$\_SESSION variable. For example, you can assign retrieved user row object to \$\_SESSION like this \$\_SESSION["user"]=\$row. If user does not exist in database, show corresponding message about that. Once the user successfully logs in, hide login form and show add new post form which had to be hidden before. You can check whether user is logged in or not by isset(\$\_SESSION["user"]). Also after successful login, a link Log Out referring to index.php?logout=1 should appear next to add new post form. When this link is pressed, index.php should capture logout parameter passed by GET and then call session\_destroy() to clear all values stored in \$\_SESSION. This should automatically show login form again. Login form is shown in Figure 3.



Figure 3: Login form

- 4. In login form of index.php implement Remember Me function using cookies. If Remember Me checkbox is checked, then in index.php you should create a cookie that stores username of the user (i.e. call setcookie("username", "name", time()+60\*60\*24\*365)), so next time user opens this page, it should populate username field in login form from \$\_COOKIE["username"]. If Remember Me is unchecked, then username cookie should be removed (i.e. call setcookie("username", "name", time()-1)).
- 5. In index.php, you should retrieve all blog posts from database and modify static HTML to display every field dynamically for each post.
- 6. In index.php, you should implement functionality of adding new posts for logged in user. It means that you should create new post in posts table of blog database. Make sure that userId is equal to the id of the user that is logged in. Figure 4 shows how it should look.
- 7. In index.php add a link "My Profile" to register.php which shows only if the user is logged in. If user is already logged in and he/she opens register.php it should populate the registration form with user's details. All of these details can be taken from \$\_SESSION["user"] variable. After pressing Submit button, all changes to user's data should be updated in the database, and user should be redirected to index.php page again.

| New Post  | Profile   Log Out |
|---|-------------------|
| Title   |                   |
|   |                   |
| Body  |                   |
|   |                   |
|   |                   |
|   |                   |
|   |                   |
|   | h                 |
| Post  |                   |
|   |                   |
| TITLE HEADING   |                   |
| Author, Sep 2, 2017   |                   |
| Some text   |                   |
| Sunt in culpa qui officia deserunt mollit anim id est laborum consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et caliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco. | dolore magna      |

Figure 4: Add New Post form

| My Blog   |  |  |  |
|---|--|--|--|
| In this web site you can leave any post you want. |  |  |  |
| Registration Form                                 |  |  |  |
| Please, fill below fields correctly               |  |  |  |
| rname   |  |  |  |
|   |  |  |  |
| Name  |  |  |  |
|   |  |  |  |
| ul  |  |  |  |
|   |  |  |  |
| word  |  |  |  |
|   |  |  |  |
| firm Password                                     |  |  |  |
|   |  |  |  |
| Submit  |  |  |  |
| ready registered? <u>Login</u>                    |  |  |  |

Figure 5: Registration/My Profile Form