Lab 2 – Login and session

Aim

The aim of this lab is to learn how to code login and use session for the rest page. We will use the admin user as an example. At the end of the lab, you should be able to use PHP code login/logout functions.

BTW, today's code will be used for the rest labs.

Resources

1. You should continuously use the all settings of last lab.

Tips:

1. If you are not sure why you are doing something, ask a TA. This is what they are here for.

2. Our labs have different focus than the M-Dev-Store online videos. While if you want to be an expert, you are recommended take both labs and on-line videos.

3. The forums are available for questions and discussions.

4. These labs are expected take more than the 2 allocated hours. You should complete them in your own time before the next lab. Practice makes perfect!
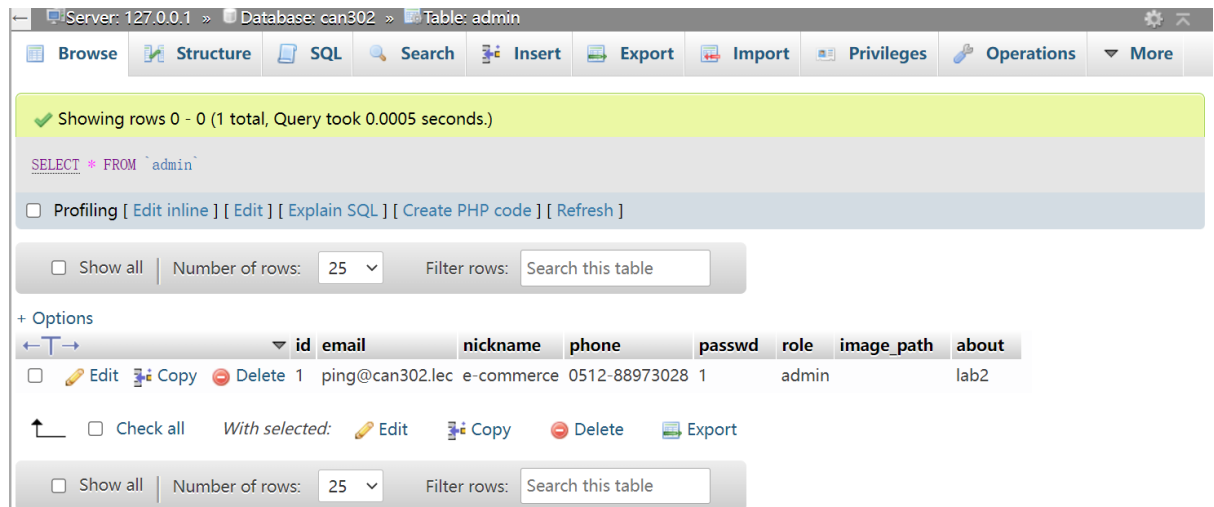
Login and index.php:

1. Before we code the webpage. we need to create a table in the database to store the info (including password) of admin.
    Open http://localhost/phpmyadmin/ and create a new database named "can302" and a table named "admin" as:

Pls manually insert one data like:

2. It is a good manner to set split different functions to different php files.
Create file named "db.php" under folder "includes" and put database connection related code in this file, as:

```php
<?php

$con = mysqli_connect("localhost", "root", "", "can302");
if (mysqli_connect_errno($con)) {
    die("Connect to MySQL failed: " . mysqli_connect_error());
}

?>
```
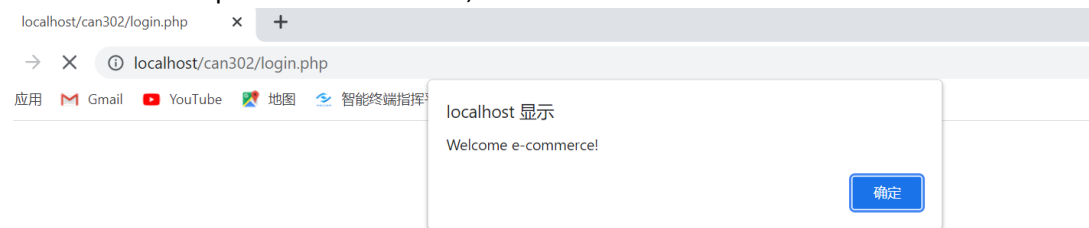
3. Then create "login.php" file under folder "can302". You are expected to have a webpage as:
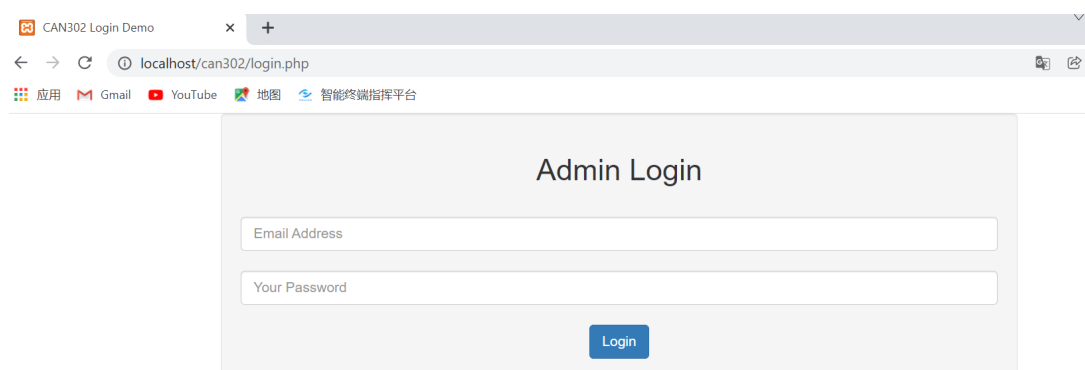
When the email or password is wrong, there is an alert info as:
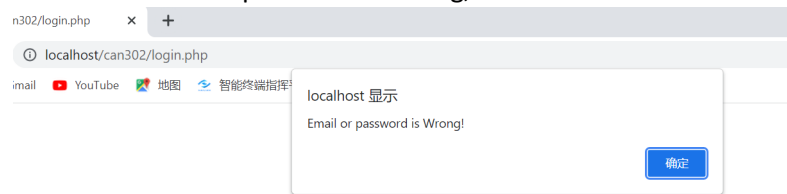
When email and password are correct, there is an alert info as:

Confirm the alert will jump to "index.php".

Modify the "index.php", and it looks like:

Key php code for login is as:

```php
1  <?php
2
3  session_start(); // magic word to start a session.
4  include("includes/db.php");
5  if (isset($_POST['login'])) {
6      $email = mysqli_real_escape_string($con,$_POST['email']);
7      $pass = mysqli_real_escape_string($con,$_POST['pass']);
8      $get_admin = "SELECT * FROM admin WHERE email='$email' AND passwd='$pass'";
9      $run_admin = mysqli_query($con, $get_admin);
0      $count = mysqli_num_rows($run_admin);
1      if ($count==1) {
2          $_SESSION['can302'] = $email;
3          $row_admin = mysqli_fetch_array($run_admin);
4          echo "<script>alert('Welcome ".$row_admin['nickname']."!')</script>";
5          echo "<script>window.open('index.php','_self')</script>";
6      }
7      else{
8          echo "<script>alert('Email or Password is Wrong!')</script>";
9      }
0  }
1
2  ?>
```

"session_start()" is the key method to start a session.
Please notice "mysqli_real_escape_string" method. Please try to figure out why we need this method here.

Please try to understand the whole logic and you may ask TAs to help.

The login form is as:

```html
<body>
    <div class="col-lg-2" style="text-align:center"><!-- container begin -->
    </div>
    <div class="col-lg-8" style="text-align:center"><!-- container begin -->
        <form action="" class="well" method="post"><!-- form begin -->
            <h2 class="form-login-heading text-center"> Admin Login </h2>
            <br>
            <input type="text" class="form-control" placeholder="Email Address"
            name="email" required>
            <br>
            <input type="password" class="form-control" placeholder="Your
            Password" name="pass" required>
            <br>
            <button class="btn btn-primary" type="submit"
            name="login">Login</button>
        </form><!-- form finish -->
    </div><!-- container finish -->
</body>
```

The key php code for "index.php" is as:

```php
1   <?php
2
3   session_start(); //key statement to check session.
4   include("includes/db.php");
5   //check the login status. Redirect the un-login users to login page.
6   if (!isset($_SESSION['can302'])) {
7       echo "<script>window.open('login.php','_self')</script>";
8   }
9   else{
10
11  ?>
12  <!DOCTYPE html>
13  <html lang="en">

33      </div><!-- container finish -->
34  </body>
35  </html>
36  <?php } ?>
```

Based on the value of session, we check the login status. If no session info, we redirect the user to login page.

An interesting thing you may notice, the html code is in the "{}" of else clause. We can end the php code by "?>" and then continue it with "<?php". It also means everything in between in between are output as "echo".

We simplify use a hyperlink button jump to the logout page for a demo. The code is as:

```html
<body>
    <div class="col-lg-2" style="text-align:center"><!-- container begin -->
    </div>
    <div class="col-lg-8" style="text-align:center"><!-- container begin -->
        <h2 class="text-center"> Session can302 has value: <?php echo
        $_SESSION['can302']?> </h2>
        <br>
        <a href="logout.php">
            <button class="btn btn-primary" type="submit"
            name="logout">Logout</button>
        </a>
    </div><!-- container finish -->
</body>
</html>
```

You may notice, within the html code, we still can embed php code.
The form will be submitted to "logout.php".

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"logout.php" is very simple as:

```php
1   <?php
2
3       session_start();
4       session_destroy();
5       echo "<script>window.open('login.php','_self')</script>";
6
7   ?>
```

Nothing else but destroy the session.

Extend questions:

1. Try to create another webpage and it also need login as "index.php". How to check the session status?

2. We may want set session expire when there is no interaction for a certain period. How to set the expire time for a session in php code?

3. How session and cookie work?

    You are recommended to look the request heads before and after logout. An example is as:
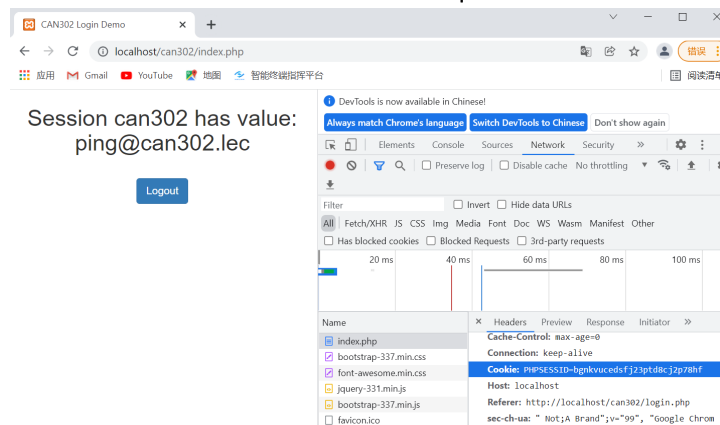
You may need "session_regenerate_id()" to make cookie dynamic.