

Introduction

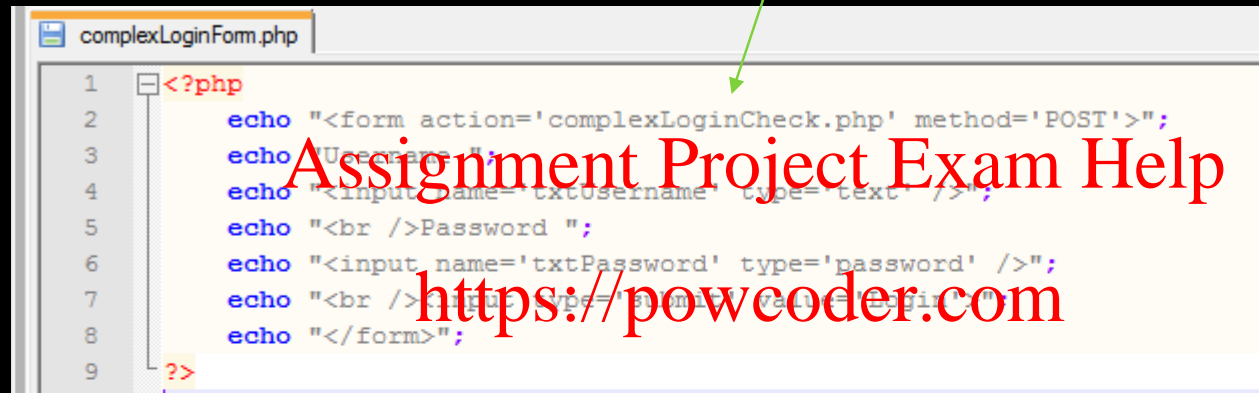
- For this topic we will be focussing on the following:
 - Using PHP to Create a Complex Login Form
 - Creating a Database using MySQL
 - Creating a Table using MySQL
 - Populating a Table using MySQL
 - Using PHP to Create a Script that will allow us to View the content of our Table
 - Using PHP to Create a Complex Script to check the user's Login details based on the data within the Database
- We will now begin to focus on all of the above

Creating a Complex Login Form

- For this part you may use a copy of your previous login form (simpleLoginForm.php) – make sure that you go through the following process:
 - Make a copy of simpleLoginForm.php
 - Rename your copy to complexLoginForm.php
 - Change line 2 of complexLoginForm.php so that it contains complexLoginCheck.php instead of simpleLoginCheck.php
- Once you have completed the above process you should end up with the code and the form on the next slide

Creating a Complex Login Form

- The code:



```
1 <?php
2     echo "<form action='complexLoginCheck.php' method='POST'>";
3     echo "Username: ";
4     echo "<input name='txtUsername' type='text' />";
5     echo "<br />Password ";
6     echo "<input name='txtPassword' type='password' />";
7     echo "<br /><input type='button' value='Login' />";
8     echo "</form>";
9 ?>
```

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- The Form:



Username

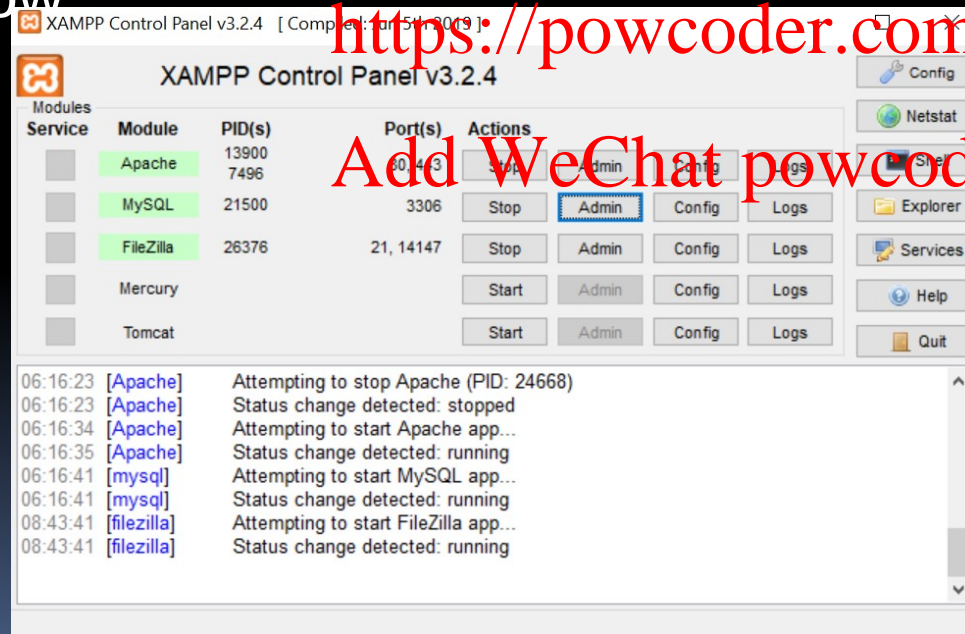
Password

Creating a Database using MySQL

- The way that this version of the login will work will be that it checks a database to see if the User's Login details are correct or not
- The following process will happen when the User clicks on the Login button:
 - The Script will connect to the Database
 - The Script will check the SystemUser Table in the Database to see if the Username exists
 - If the Script finds the User then it will check the SystemUser Table to see if the Password matches the Username
 - If the Password matches then the User will have access to the System
 - If the Password does not match then a 'Wrong Password' message will appear
 - If the Script does not find the User then a 'User not found' message will appear

Creating a Database using MySQL

- Before we can write the Script that accesses the Table within the Database we will need to create the Database on our Server
- Click on the Admin for MySQL as shown in the image below



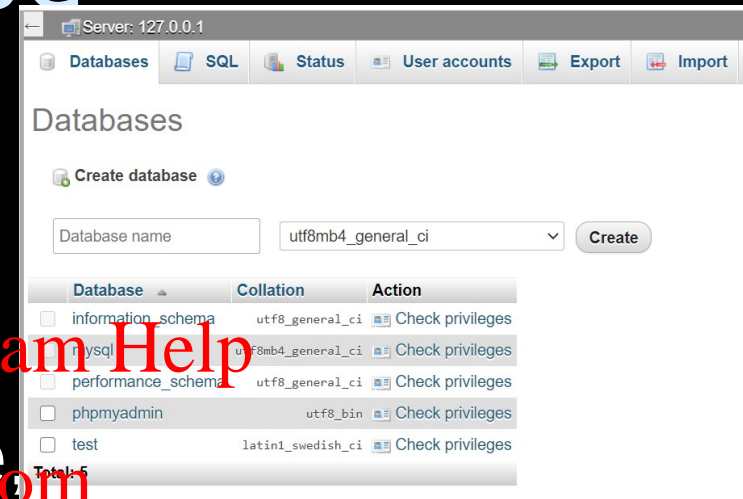
Create a Database

- Click on create Database
- Enter useful name for DB,

I call it **sooneret**

- It will prompt to create table.

check next slide for table creation.



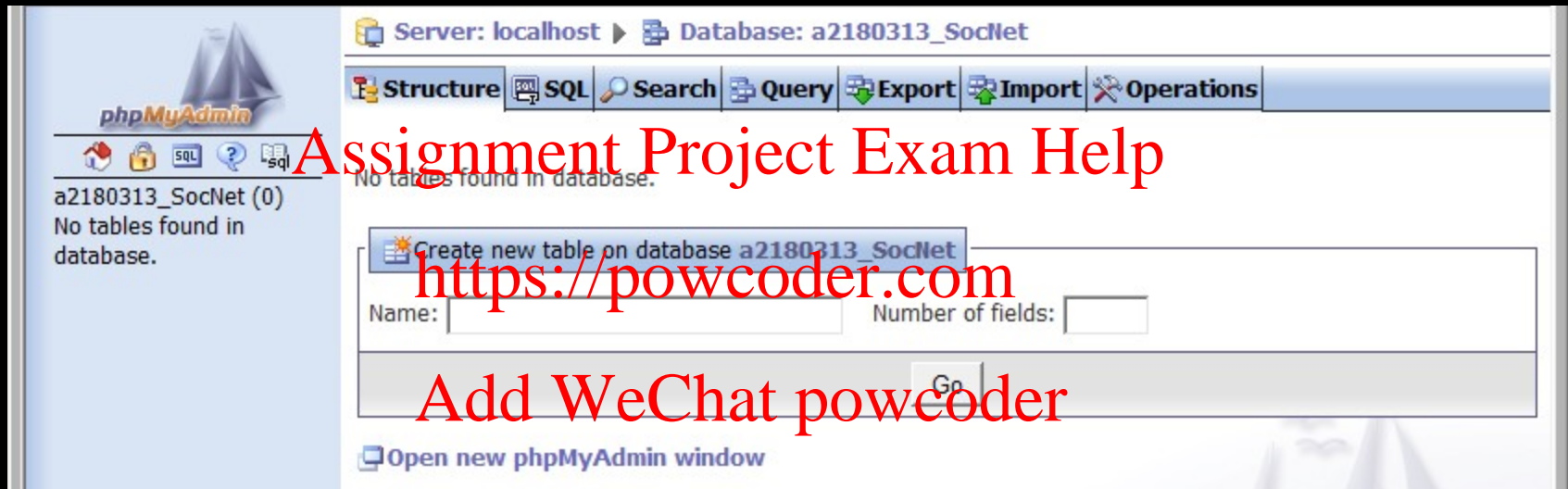
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Creating a Table using MySQL –

- You should now have the following screen



- This is where you will have to name your Table and you will also need to say how many fields you are going to include in your Table

Creating a Table using MySQL

- I have used the following values:

Server: localhost Database: a2180313_SocNet

Structure SQL Search Query Ex

No tables found in database.

Create new table on database a2180313_SocNet

Name: SystemUser Number of fields: 6

Go

Open new phpMyAdmin window

The Table will be called SystemUser

There will be 6 Fields

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- Once you have entered your values then click on Go to continue

Creating a Table using MySQL

- You should now have the following screen:

Server: localhost ▶ Database: a2180313_SocNet ▶ Table: SystemUser

Field	Type?	Length/Values ¹	Collation	Attributes	Null	Default ²	Extra				
	VARCHAR				not null						
	VARCHAR				not null						
	VARCHAR				not null						
	VARCHAR				not null						
	VARCHAR				not null						
	VARCHAR				not null						

Table comments:

Storage Engine: MyISAM Collation:

Save Or Add 1 field(s) Go

¹ If field type is "enum" or "set", please enter the values using this format: 'a','b','c'...
If you ever need to put a backslash ("\") or a single quote (") amongst those values, precede it with a backslash (for example '\\xyz' or 'a\\b').

² For default values, please enter just a single value, without backslash escaping or quotes, using this format: a

- This screen will allow you to name all of your Fields as well as determine their Data Types and other settings

Creating a Table using MySQL

- I have used the following values for my Table:

Server: localhost Database: a2180313_SocNet Table: SystemUser

Field	Type ¹	Length/Values ¹	Collation	Attributes	Null	Default ²	Extra
ID	INT				not null		auto_increment
Username	VARCHAR	30			not null		
Password	VARCHAR	30			not null		
Forename	VARCHAR	30			not null		
Surname	VARCHAR	30			not null		
Email	VARCHAR	255			not null		

Table comments:

Storage Engine: MyISAM Collation:

Save Or Add 1 field(s) Go

¹ If field type is "enum" or "set", please enter the values using this format: 'a','b','c'...
If you ever need to put a backslash ("\") or a single quote ("'") amongst those values, precede it with a backslash (for example '\\xyz' or 'a\\b').

² For default values, please enter just a single value, without backslash escaping or quotes, using this format: a

- Make sure that you use similar values for your Table and click on Save once you have finished. For ID tick the **A_I** which is autoincrement. In some versions, it is a checkbox, next to null.

Populating a Table using MySQL

- Now that we have our SystemUser Table within our Database we will need to add some Data
- Add some data manually by clicking on Insert
- We will create a registration page in coming weeks that will automatically put user records in this table.

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The screenshot shows the phpMyAdmin interface for a MySQL database named 'socnet'. The 'systemuser' table is selected, and the 'Insert' tab is active. The table structure is displayed with columns: ID (int(11)), Username (varchar(30)), Password (varchar(30)), Forename (varchar(30)), Surname (varchar(30)), and Email (varchar(255)). The 'Insert' form is shown with input fields for each column. The 'Email' field is a large text area. The 'Ignore' checkbox is checked.

Column	Type	Function	Null	Value
ID	int(11)			
Username	varchar(30)			
Password	varchar(30)			
Forename	varchar(30)			
Surname	varchar(30)			
Email	varchar(255)			

Populate few entries in your table

phpMyAdmin

Recent Favorites

Columns

Column Type Function Null Value

ID int(11)

Username varchar(30) imran

Password varchar(30)

Forename varchar(30)

Surname varchar(30) imran

Email varchar(255) imran.khan@sussex.ac.uk

☐ Ignore

Column Type Function Null Value

ID int(11)

Username varchar(30) khan

Password varchar(30) khan

Forename varchar(30) khan

Surname varchar(30) khan

Email varchar(255) imran.khan@sussex.ac.uk

Insert as new row and then Go back to previous page

Preview SQL Reset Go

Continue insertion with 2 rows

If you want more user records, specify here how many more records

Viewing a Table using a PHP Script

- In order to get used to connecting to a Database, searching through Records in a Table and Displaying the Data within each one – I am going to show you how to complete the following things using PHP: <https://powcoder.com>
 - Connecting to your Server
 - Selecting your Database
 - Finding Records (Users) within your SystemUser Table
 - Displaying all of your Records (Users) in a HTML Table within a Browser window

Viewing a Table using a PHP Script

- Once your PHP Script is working and running you should get something similar to the following screen within your Browser:

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Registered Users details, stored in text form

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RockYou incident in 2009 tells us that is extremely dangerous

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Hanging car keys outside of your house door

ID	Username	Password	Forename	Surname	Email
1	imran	imran	imran	imran	imran.khan@sussex.ac.uk
2	khan	khan	khan	khan	imran.khan@sussex.ac.uk
3	imran1	imran1	imran1	imran1	

Viewing a Table using a PHP Script

- Here is the first part of the PHP Script that I have saved as viewUsers.php.

```
1 <?php
2
3 $servername = "localhost";
4 $username="root";
5 $db="socnet";
6 $password ="";
7
8
9 // Create connection
10 $conn = new mysqli($servername, $username, $password, $db);
11
12 // Check connection
13 if ($conn->connect_error)
14 {
15     die("Connection failed: " . $conn->connect_error);
16 }
17
18 $userQuery = "SELECT * FROM SystemUser";
19 $userResult = $conn->query($userQuery);
20
21 echo "<h1> Registered Users details, stored in text form </h1>";
22 echo "<h2> RockYou incident in 2009 tells us that is extremely dangerous </h2>";
23 echo "<h3> Hanging car keys outside of your house door </h3>";
24
25 echo "<table border='1'>";
```

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Viewing a Table using a PHP Script

- Remaining part of viewUsers.php:

```
26 if ($userResult->num_rows > 0)
27 {
28     echo "<tr>";
29     echo "<td> ID</td>";
30     echo "<td> Username </td>";
31     echo "<td> Password </td>";
32     echo "<td> Forename </td>";
33     echo "<td> Surname </td>";
34     echo "<td> Email </td>";
35     echo "</tr>";
36     while($userRow = $userResult->fetch_assoc())
37     {
38         echo "<tr>";
39         echo "<td>" . $userRow['ID'] . "</td>";
40         echo "<td>" . $userRow['Username'] . "</td>";
41         echo "<td>" . $userRow['Password'] . "</td>";
42         echo "<td>" . $userRow['Forename'] . "</td>";
43         echo "<td>" . $userRow['Surname'] . "</td>";
44         echo "<td>" . $userRow['Email'] . "</td>";
45
46         echo "</tr>";
47     }
48 }
49 echo "</table>";
50
51
52 ?>
```

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- View your viewUsers.php in browser, you will get the output all users details which is stored in text

Creating a Complex Login Script

- At this point we have the following things:
 - A Database on our Server
 - A Table called SystemUser within our Database
 - User Records within our SystemUser Table
 - A working PHP Script that shows all of the Users within our System
- The next step is to create a PHP Script that will check the details, that could be entered into the Form, that was created using a PHP Script (complexLoginForm.php) right at the start of this Presentation

Creating a Complex Login Script

- Here is the first part of the complexLoginCheck.php Script, that will check the User's Login details to see if the User exists within the SystemUser Table and if they do then it will check to see if the Password is co

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```
1 <?php
2 // server and db connection values
3 $servername = "localhost";
4 $rootUser="root";
5 $rootPassword="";
6 $rootPassword = "";
7
8 // Create connection
9 $conn = new mysqli($servername, $rootUser, $rootPassword, $db);
10
11 // values come from user entry in webform
12 $username = $_POST['txtUsername'];
13 $password = $_POST['txtPassword'];
14
15 // Check connection
16 if ($conn->connect_error)
17 {
18     die("Connection failed: " . $conn->connect_error);
19 }
20
21 // query
22 $userQuery = "SELECT * FROM SystemUser";
23 $userResult = $conn->query($userQuery);
24
25 // flag type variable
26 $userFound = 0;
27
28 echo "<table border='1'>";
```

Creating a Complex Login Script

Remaining part of complexLoginCheck.php

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```
29  if ($userResult->num_rows > 0)
30  {
31      while($userRow = $userResult->fetch_assoc())
32      {
33          if ($userRow['Username'] == $username)
34          {
35              $userFound = 1;
36              if ($userRow['password'] == $password)
37              {
38                  echo "Hi" . $username. "!";
39                  echo "Welcome to our website";
40              }
41              else
42              {
43                  echo "Wrong password";
44              }
45          }
46      }
47  }
48  }
49
50  if ($userFound == 0)
51  {
52      echo "This user was not found in our Database";
53  }
54
55  >>
```

Creating a Complex Login Script

- Testing the Script – Make sure that you test the Script for all of your Users:
 - Check to see if it finds all Users – Test one User at a time
 - Check to see if the Passwords work for all Users – Test one User at a time
 - Check to see if it displays the Wrong Password message for all Users by using an incorrect Password for each User – Test one User at a time

Summary

- Today we looked at all of the following:
 - Using PHP to Create a Complex Login Form
 - Creating a Database using MySQL
 - Creating a Table using MySQL
 - Populating a Table using MySQL
 - Using PHP to Create a Script that will allow us to View the content of our Table
 - Using PHP to Create a Complex Script to check the user's Login details based on the data within the Database