

# PHP MySQL2, Remote Server

System and Web Development Workshop

# Heads Up on what will happen

- Assignment 3 will be released this weekend
  - Maybe Sun or Mon (Apr 20 or 21)
- Test 2 will be held on the Week 13, right after Labor Day during Lab.
  - Section 1 – Fri May 9
  - Section 2 – Tue May 6

## Last Lecture

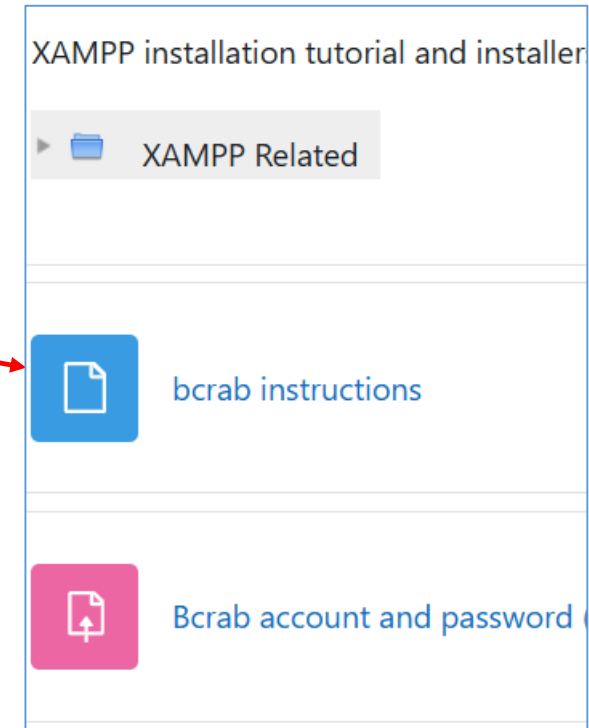
- Put PHP files in the **local server XAMPP**.
  - You can search for info in database (using MySQL) in your own computer.
  - This is similar to putting HTML, CSS, JS files into your local computer.
    - You can see your web page using your own computer.

## This Lecture

- Put PHP files in remote server (bcrab).
  - You can search for info stored in the database of a remote server.
  - Similar to putting HTML, CSS, JS files in remote server (stuweb).
    - So other people can see your web pages with their computers.

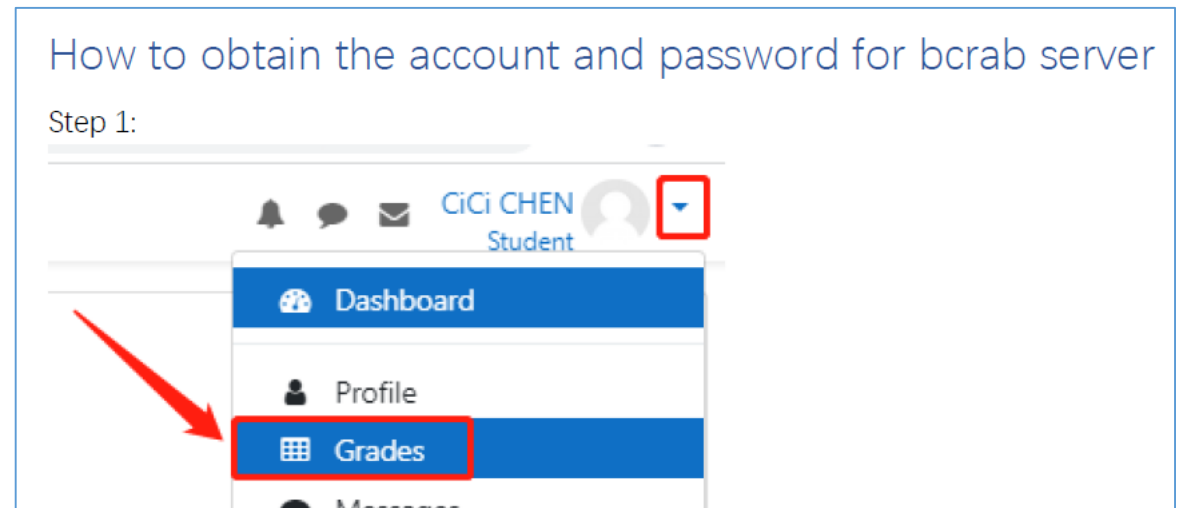
# Bcrab Instructions

- In iSpace's General section:
  - Pdf file **bcrab instructions**
  - In past years, a pair of students share an account.
  - This year each student has his or her own account?



## (I) Obtaining your account and password

- Follow **bcrab instructions**, pages 2-3.



# Bcrab Instructions Summary

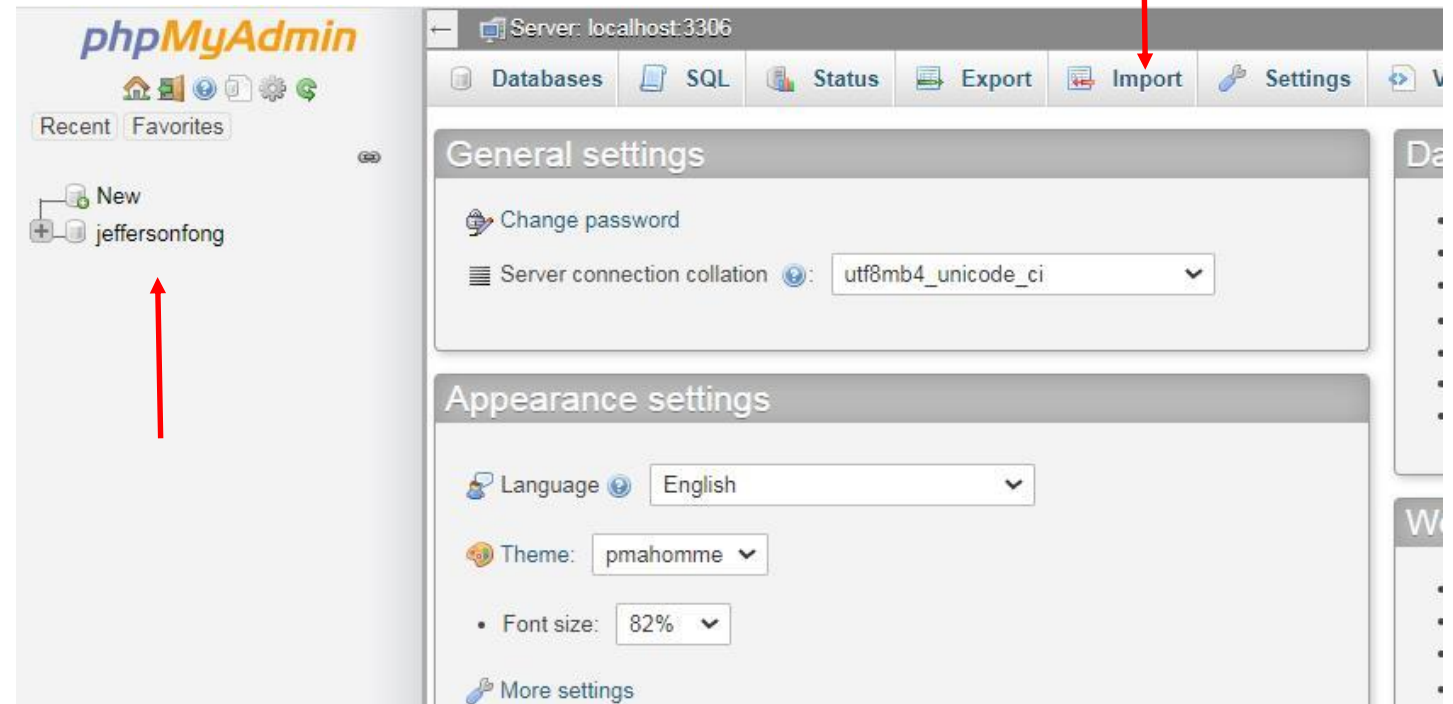
## (II) Uploading PHP files into bcrab server.

- For the local XAMPP server, we put the PHP files in c:\xampp\htdocs
- For the **bcrab** server, we use **FileZilla** to move files to bcrab.
  - You've learn FileZilla when using stuweb in 1\_HtmlCssForms.
- Follow **bcrab instructions**, page 1, STUWEB Server
  - E.g. in PhpIntro\_samples folder, copy 02\_php\_variable.php to hello.php.
  - Move hello.php to bcrab using FileZilla
  - Host: stuweb.bcrab.cn; enter your username (instead of dpair36) and password
  - To see the results with a browser inside UIC, enter **http://stuweb.bcrab.cn/dpair36/hello.php**
  - Use **http** and **not https**; change **dpair36** to your own account name.
  - For outside UIC (including your dorms), use the UIC VPN.
    - See the bottom of last page of bcrab instructions.

# Bcrab Instructions Summary

(III) Create a **database** and upload a **database table** to bcrab.

- Follow bcrab instructions, pages 1-2 on WSDB
- With a browser in UIC, enter <http://wsdb.bcrab.cn>
- Similar steps to importing customers to local XAMPP.
  - See PHP\_MySQL1.pptx, part (II) around slides 17-20.
  - Use your own database name (dpairiXX) instead of jeffersonfong.
  - You must choose the DB with your own account name; using someone else's DB won't work.



# Bcrab Instructions, from Samples A - Customers

- Samples A codes for Customers DB are in folder PhpMySql2\_samples\samplesA\_customers\_bcrab\
- In last lecture part (IIA), you've ran 3 files in your local XAMPP.
- Now let's run these 3 files in bcrab.
- Use FileZilla, create a folder call **PhpMySql2** and upload these 3 sample files there:
  - 01\_connection\_bcrab.php
  - 02\_select\_bcrab.php
  - 03\_select\_where\_bcrab.php

# PHP Connect to a server

- Open a Connection to MySQL

01\_connection\_bcrab.php

Local server info  
commented out

Connecting to  
server bcrab.

```
<?php
// Comment and uncomment the following for using DB in XAMPP
or stuweb.bcrab.cn.

// (1) Using DB in local XAMPP server
// $servername = "localhost";
// $username = "root";      // for local host
// $password = "";         // for local host
// $db = "jeffersonfong"; // change to your own db name

// (2) Using DB in bcrab
$servername = "stuweb.bcrab.cn";
$username = "XXXXX"; // change XXXXX to your bcrab username
$password = "XXXXX"; // change XXXXX to your bcrab password
$db = "jeffersonfong"; // change to your own db name
```



# Note from last year

- Use  
    `$servername = "stuweb.bcrab.cn";`
- If that doesn't work, try  
    `$servername = "wsdb.bcrab.cn";`

# PHP Connect to MySQL

- The rest of the code is **same** as the localhost version.

```
// Create connection
$conn = new mysqli($servername, $username, $password);

// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}
echo "Connected successfully";
?>
```

01\_connection\_bcrab.php

- See the result with a browser
- [http://stuweb.bcrab.cn/dpair36/PhpMySQL2/01\\_connection\\_bcrab.php](http://stuweb.bcrab.cn/dpair36/PhpMySQL2/01_connection_bcrab.php)
  - Change **dpair36** to your bcrab account name.
  - Or try [http://wsdb.bcrab.cn/...](http://wsdb.bcrab.cn/)

# Run a Query on remote database

In 02\_select\_bcrab.php,

- Make the connection settings for bcrab, similar to 01\_connect\_bcrab.php
- The rest of the code is same as the localhost version.
  - Run a SQL commend, and display the result.

02\_select\_bcrab.php

```
$sql = "SELECT CustomerID, CustomerName, City FROM customers";  
$result = mysqli_query($conn, $sql);  
  
// The display the result
```

# PHP Select Data From MySQL

id: 1 - Name: Alfreds Futterkiste -- City: Berlin  
id: 2 - Name: Ana Trujillo Emparedados y helados -- City: Mxico D.F.  
id: 3 - Name: Antonio Moreno Taquera -- City: Mxico D.F.  
id: 4 - Name: Around the Horn -- City: London  
id: 5 - Name: Berglunds snabbkp -- City: Lule  
id: 6 - Name: Blauer See Delikatessen -- City: Mannheim  
id: 7 - Name: Blondesddsl pre et fils -- City: Strasbourg  
id: 8 - Name: Blido Comidas preparadas -- City: Madrid  
id: 9 - Name: Bon app' -- City: Marseille  
id: 10 - Name: Bottom-Dollar Markets -- City: Tsawassen  
id: 11 - Name: B's Beverages -- City: London  
id: 12 - Name: Cactus Comidas para llevar -- City: Buenos Aires  
id: 13 - Name: Centro comercial Moctezuma -- City: Mxico D.F.  
id: 14 - Name: Chop-suey Chinese -- City: Bern  
id: 15 - Name: Comrcio Mineiro -- City: Sao Paulo  
id: 16 - Name: Consolidated Holdings -- City: London  
id: 17 - Name: Drachenblut Delikatessen -- City: Aachen  
id: 18 - Name: Du monde entier -- City: Nantes  
id: 19 - Name: Eastern Connection -- City: London  
id: 20 - Name: Ernst Handel -- City: Graz  
id: 21 - Name: Familia Arquibaldo -- City: Sao Paulo  
id: 22 - Name: FISSA Fabrica Inter. Salchichas S.A. -- City: Madrid  
id: 23 - Name: Folies gourmandes -- City: Lille  
id: 24 - Name: Folk och f HB -- City: Brcke

Output from **02\_select\_bcrab.php**  
Same as localhost version.

# Exercise A

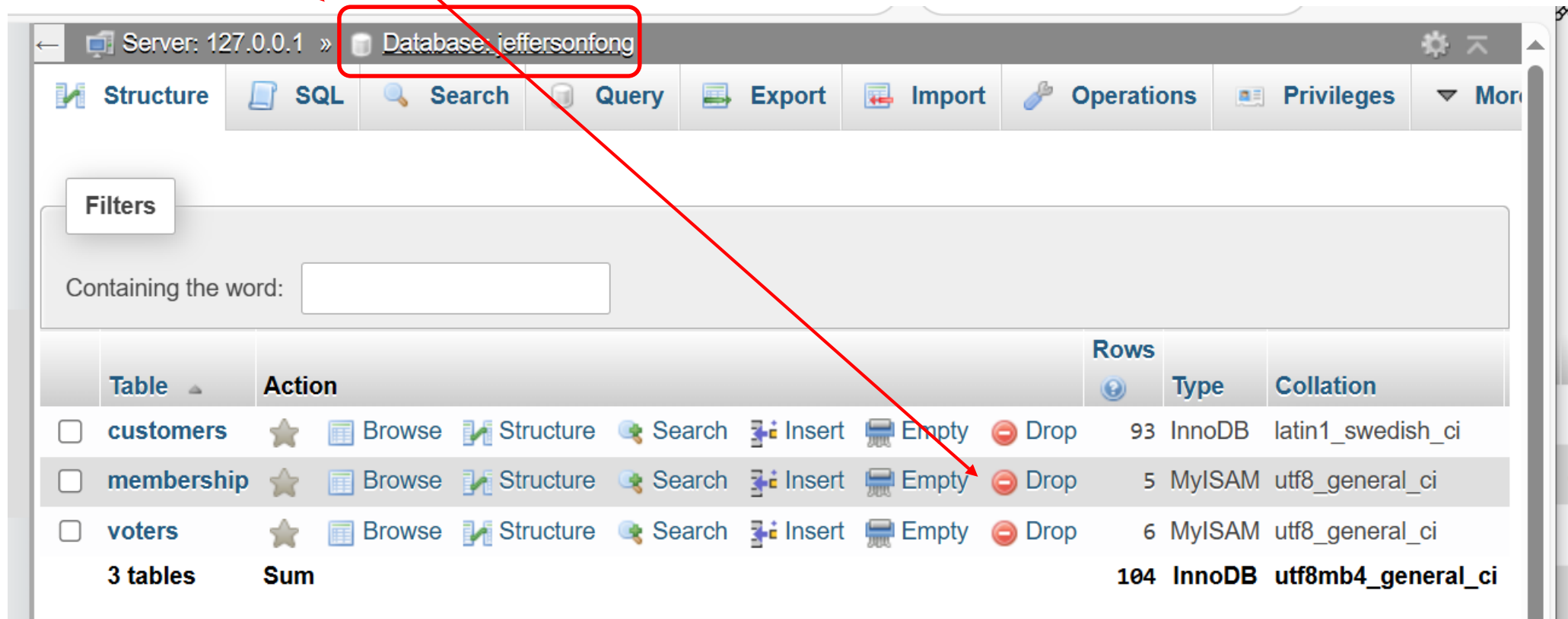
- Run `02_select_bcrab.php` and `03_select_where_bcrab.php`, in the bcrab server.
- In `03_select_where_bcrab.php`, change the SQL to
  - List all Contact names and cities in London

# Samples B – Local and Remote Server

- Download PhpMySql2\_samples\samplesB\_membership.
  - Note the database file membership.sql in that folder.
- Copy the files 01\_login.php, 02\_checkPasswordHardwired.php , 03\_connectDB.php files into the **local** XAMPP php folder.
  - E.g. copy to C:\XAMPP\htdocs\php\PhpMySQL2
- The file membership.sql has been updated on Apr 19.
  - If you imported the old membership.sql into your XAMPP, you need to drop (remove) the old membership table and re-import the new one.
  - See next slide on dropping a table.

# Drop (remove) the old membership table.

- (1) Click on the database name (jeffersonfong in my XAMPP).
- (2) Click Drop on the membership table.
- (3) Import the new membership table.



# Samples B: 01\_Login, 02\_hardwired password

- Code 01\_Login.php contains an input form.

## 01\_login.php

```
<h2>Logon Form</h2>
<form action="02_checkPasswordHardwired.php" method="POST">
  <label for="usr">username:</label><br>
  <input type="text" id="usr" name="usr" value="John"><br>
  <label for="pwd">password:</label><br>
  <input type="password" id="pwd" name="pwd" value="Doe"><br><br>
  <input type="submit" value="Submit">
</form>
```

**Logon Form**

username:  
John

password:  
●●●

Submit

When Submit is clicked, usr and pwd values are sent to 02\_checkPasswordHardwired.php



# Samples B: 01\_Login, 02\_checkPasswordHardwired

## 02\_checkPasswordHardwired.php

```
<?php
$db_pwd = "666666";           // Hardwired value for password
$user   = $_POST["usr"];      // username from login form
$pwd    = $_POST["pwd"];      // password from login form

if ($db_pwd == $pwd){
    echo "Your Username is: $user, and your Password matches the one in the database.";
} else {
    echo "Your Username is: $user <br> The Password you typed <b>$pwd</b> is incorrect";
}
?>
```

- Code 02 compares the \$pwd with the hardwired value (“666666”).
- In a browser, run 01\_login.php.
  - <http://localhost/php> , then browser to 01\_login.php.
  - Enter a password different than the hardwired value. What happens?
  - Enter the hardwired value as the password. What happens?

# Include or Require

- **Include or require statements**

(1) Insert the content of one PHP file into another PHP file, before the server executes it.

- Similar to C's `#include <stdio.h>`

(2) Are identical, except upon failure.

- `require 'filename';`
  - produces a fatal error (E\_COMPILE\_ERROR) and **stop the script**.
- `include 'filename';`
  - produces a warning (E\_WARNING) and **continue with the script**.

# Include or Require

## MainFile.php

```
<?php
include 'ConnectionInfo.php';

$username = $_POST["usr"];
$name     = $_POST["realName"];
$password = $_POST["pwd"];

...

?>
```

## ConnectionInfo.php

```
<?php
$servername="localhost";
$username="username";
$password="password";
$db="dbName";

...

?>
```

- The **connection info** can be stored in **separate file**.
  - Easier to maintain and **protect** the **password**.
  - Have **one connection info** file for **local server**, and **another** for **remote server** (with password).
  - To change from local to remote server, just **change** the **include statement** in the main file.
- Other than that, the **main file** is the **same** in the local and remote server.
  - So can **write** and **debug** the **main file** in the **local server** for convenience.
  - When main file works correctly, move it to remote server for other people to use.

# Samples B – Membership, Exercise B1

- `03_connectDB.php` contains the connection information for local server.
  - Similar to last week's `01_connection_localhost.php`.

## Class Exercise B1

- Create `03_connectDB_bcrab.php` to have the connection information for your account in bcrab. Also make the connection to bcrab server.
- First develop our code in the **local server** with  
`include '03_connectDB.php';`
- After our code works properly in local server, move it to bcrab with  
`include '03_connectDB_bcrab.php';`

## 04 Check Password by Database

- Rather than comparing the password with a hardwired value (as in [02\\_checkPasswordHardwired.php](#)), let's **compare** the **username** and **password** with the values in the **database**.
- If you haven't done so, downloaded [membership.sql](#) from iSpace and import it into your local XAMPP.
  - Use the same database in XAMPP you've used last week.
  - Your database can have two tables: customers and membership.
  - Recall this lecture's slide 6 and last lecture's slide 17-20 on importing tables.












# 04 Check Password by Database, demo

- See the video [ExerciseB2\\_php\\_login.mp4](#).
  - The video is next to the lecture slides in iSpace.
- Compare the username and password (left) with values in the database (right).

## Logon Form

username:

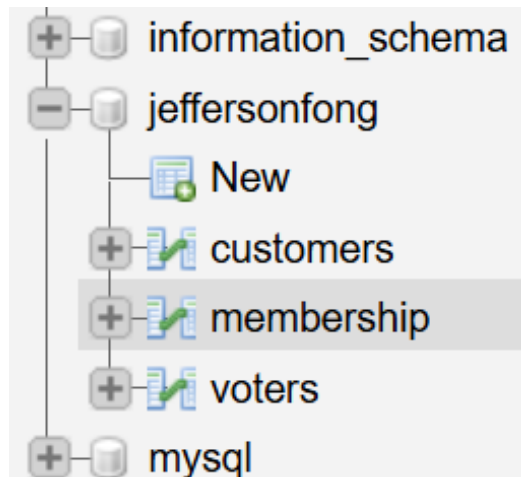
password:













				mid	username	password	real_name
<input type="checkbox"/>		Edit		Copy		Delete	1 xiao 1111 DONG Xiao
<input type="checkbox"/>		Edit		Copy		Delete	2 jefferson 2222 Jefferson FONG
<input type="checkbox"/>		Edit		Copy		Delete	3 Cici 3333 Cici CHEN
<input type="checkbox"/>		Edit		Copy		Delete	4 Yunting 4444 LAI Yunting
<input type="checkbox"/>		Edit		Copy		Delete	6 hejing 1010 HE Jing

- First enter a username or password **not** in the database, and Submit.
- Then enter a username and password in the database, and Submit.
  - E.g. username hejing, password 1010.

## 04 Check Password by Database, Exercise B2

- See the content of the database table membership.sql.



					mid	username	password	real_name		
<input type="checkbox"/>		Edit		Copy		Delete	1	xiao	1111	DONG Xiao
<input type="checkbox"/>		Edit		Copy		Delete	2	jefferson	2222	Jefferson FONG
<input type="checkbox"/>		Edit		Copy		Delete	3	Cici	3333	Cici CHEN
<input type="checkbox"/>		Edit		Copy		Delete	4	Yunting	4444	LAI Yunting
<input type="checkbox"/>		Edit		Copy		Delete	6	hejing	1010	HE Jing

- Click the table **membership**, and the content should appear.

# Login a User, check database, **Exercise B2**

- Move [04\\_checkPasswordByDB.php](#) from PhpMySql2\_ClassEx to the local server htdocs; fill in the missing codes labelled FIXME.
  - See last week's sample codes [02\\_select\\_localhost.php](#) and [03\\_select\\_where\\_localhost.php](#) to figure out the missing code.
- In [01\\_login.php](#), comment and uncomment the statements to call [04\\_checkPasswordByDB.php](#).
- Use a browser to run [01\\_login.php](#)
- **Submit** your completed [04\\_checkPasswordByDB.php](#)



# Login a User, check database, **Exercise B2**

- Copy the intermediate solution 04\_checkPasswordByDB\_start.php to [04\\_checkPasswordByDB.php](#).
- Move it to your local server's htdocs
- Fill in the missing codes labelled FIXME.
  - See PhpMySQL1's sample codes 02\_select\_localhost.php and 03\_select\_where\_localhost.php to figure out the missing code.
- In [01\\_login.php](#), comment and uncomment the statements to call [04\\_checkPasswordByDB.php](#).
- Use a browser to run [01\\_login.php](#).
- **Submit** your completed [04\\_checkPasswordByDB.php](#)

# New Membership, demo

Run **05\_new\_member\_form.php** in localhost.

**Add a new member:**

- First, enter **different** password and confirm password, then Submit.
  - You should get an error.

## New Member Form

username:

















password:

confirm password:

- Next, enter the **same** password and confirm password, then Submit.
  - Notice new username and password are added to database table.
- Watch the video **ExerciseB3\_php\_new\_member.mp4**.
  - The videos section is next to the lecture section in iSpace.
  - The demo inserts Bruce with password 1234 into the database.
  - The DB table's values in the video are different than those here.

# New Membership, Exercise B3

- Write **05\_new\_member.php**
  - So you can add a new member into the database using 05\_new\_member\_form.php, as shown in the demo.
  - Start from the intermediate solution 05\_new\_member\_start.php.

<div><div><div>←</div><div>T</div><div>→</div></div></div>					mid	username	password	real_name	status
<input type="checkbox"/>	 Edit	 Copy	 Delete	1	xiao	1111	DONG Xiao	Disabled	
<input type="checkbox"/>	 Edit	 Copy	 Delete	2	jefferson	2222	Jefferson FONG	Enabled	
<input type="checkbox"/>	 Edit	 Copy	 Delete	3	Cici	3333	Cici CHEN	Enabled	
<input type="checkbox"/>	 Edit	 Copy	 Delete	4	Yunting	4444	LAI Yunting	Disabled	
<input type="checkbox"/>	 Edit	 Copy	 Delete	6	hejing	1010	HE Jing	Enabled	
<input type="checkbox"/>	 Edit	 Copy	 Delete	9	John	2020	John	Enabled	

- Note you can delete a row directly in XAMPP, in case you made a mistake or want a fresh start.

# New Membership, **Exercise B3 and B4**

- In **05\_newMember.php**
  - Correct the code labelled FIXME.
  - Check that the password and the confirm password match
    - If they match, insert the new member
    - If they don't match, output a warning message
  - Echo messages for success or failure after submitted the query.
- **Submit** your **05\_newMember.php**

## **Exercise B4**

- Make all the previous B exercise run in bcrab.

# Class Exercises Summary

## Last Week: Exercise A

- Make 03\_select\_where\_bcrab.php to run in the bcrab server.
  - In iSpace, submit the link to your code in bcrab.

## This Week:

- Exercise B1 – create 03\_connectDB\_bcrab.php.
- Exercise B2 – fix 04\_checkPasswordByDB.php.
- Exercise B3 – fix 05\_newMember.php.
- Exercise B4 – make B1 to B3 to run in bcrab.
  - In iSpace's Online Text, submit the link to your code in bcrab

# Class Exercises Summary

- Zip your files in one folder and submit it in **iSpace**.
- Use FileZilla to move your files to **bcrab**.
- In the **Online Text** of the iSpace submission, enter the proper URL address for 01\_login.php and 05\_new\_member\_form.php, e.g.  
[http://stuweb.bcrab.cn/dpair36/PhpMySQL2/01\\_login.php](http://stuweb.bcrab.cn/dpair36/PhpMySQL2/01_login.php)  
[http://stuweb.bcrab.cn/dpair36/PhpMySQL2/05\\_new\\_member\\_form.php](http://stuweb.bcrab.cn/dpair36/PhpMySQL2/05_new_member_form.php)
  - Change the account name and folder to the correct values.
  - The TA should be able to copy your links and run them on her browser.