

بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِيْمِ
اللّٰهُمَّ اكْفُنْهُ عَنِ الدِّينِ
عَنِ الدِّينِ وَعَنِ الدِّينِ
عَنِ الدِّينِ وَعَنِ الدِّينِ

Web Technologies and Programming

Lecture 27

Retrieving Data, Delete, Update from Database

Summary of the previous lecture

- Creating database in MySQL using WAMP
- Connecting PHP with MySQL
- Inserting data in database
- CONNECTIONS: user registration
- FILES super global variable
- File uploading in PHP
- Storing reference of uploaded file in database
- User registration in CONNECTIONS web application with file upload

Outline

- Retrieving data from MySQL using PHP
- **CONNECTIONS:** login functionality
- Deleting records in MySQL using PHP
- Updating records in MySQL using PHP

1. Retrieving data from MySQL using PHP

- **Connection with database**
- Execute **Select SQL command**
- Make **display structure**
- **Write data**

1.1 Connection with database

```
<?php  
mysql_connect("localhost","root","");
die("Error in connection");  
  
mysql_select_db("testdatabase") or die("Error
in Selection");  
?>
```

1.2 Selecting data

- The **SELECT** statement is used to select data from one or more tables:
- **SELECT command in SQL:**
SELECT column-name
FROM table-name

SELECT user_Name

FROM users

SELECT *

FROM users

1.2 Selecting data...

- **Condition selection:**

SELECT column-name

FROM table-name

WHERE condition

SELECT *

FROM users

WHERE user_Id>4

1.2 Selecting data...

```
<?php  
include('connection.php');  
$sql = 'select * from users';  
$result = mysql_query($sql);  
?>
```

1.2 Selecting data...

- Counting rows:

- mysql_num_rows(variable);

```
<?php  
include('connection.php');  
$sql = 'select * from users';  
$result = mysql_query($sql);  
$users = mysql_num_rows($result);  
echo "There are total ". $users ."users found";  
?>
```

1.3 Display structure

```
<table border='1'>
<tr>
<th> User Name</th>
<th> User Email</th>
<th> User Password</th>
<th> User Picture</th>
</tr>
<tr>
<td> &nbsp;</td>
<td> &nbsp;</td>
<td> &nbsp;</td>
<td> &nbsp;</td>
</tr>
</table>
```

1.4 Writing data

- **mysql_fetch_array(result-resource);**
 - **mysql_fetch_array(\$result);**

1.4 Writing data...

\$result=

1	Ali	ali@yahoo.com	123	upload/123ali.jpg
2	Umar	umar@yahoo.com	123	upload/123umar.jpg

\$row = mysql_fetch_array(\$result);

\$row=

0	1	2	3	4
user_Id	user_Name	user_Email	user_Password	user_Picture
1	Ali	ali@yahoo.com	123	upload/123ali.jpg

echo \$row [1]; echo \$row['user_Name'];

1.4 Writing data...

```
<table border='1'>
<tr>
<th> User Name</th>
<th> User Email</th>
<th> User Password</th>
<th> User Picture</th>
</tr>
<tr>
<td> <?php echo $row[1]; ?> </td>
<td> <?php echo $row[2]; ?> </td>
<td> <?php echo $row[3]; ?> </td>
<td> <img src=“<?php echo $row[4]; ?>”> </td>
</tr>
</table>
```

User Name	User Email	User Password	User Picture
Ali	ali@yahoo.com	123	

1.4 Writing data...

```
<table border='1'>
  Heading Row
  <?php
  while($rows = mysql_fe
  {
    ?>
    <tr>
      <td> <?php echo $row[1]; ?> </td>
      <td> <?php echo $row[2]; ?> </td>
      <td> <?php echo $row[3]; ?> </td>
      <td> <img src=“<?php echo $row[3]; ?>”> </td>
    </tr>
  <?php } ?>
</table>
```

User Name	User Email	User Password	User Picture
Ali	ali@yahoo.com	123	
Umar	umar@yahoo.c om	123	

1.5 Example

```
1 <html>
2 <head>
3 <title> Retrieving data</title>
4 </head>
5 <body>
6 <?php
7 include ('connection.php') ;Connection to database
8 $sql = "select * from users";Select command
9 $result = mysql_query($sql);Query executed
10 $users= mysql_num_rows($result);
11 ?>Counting number of rows
```

Starts a
HTML page

Connection to database

Select command

Query executed

1.5 Example...

```
12 <table border="1" align="center">
13 <tr bgcolor="#CCCC00">
14 <th>User Name</th>
15 <th>User Email</th>
16 <th>User Password</th>
17 <th>User Picture</th>
18 </tr>

19 <?php Loop starts
20 while($rows=mysql_fetch_array($result)) Keeps row
21 {
22 ?>
```



A red curly brace on the right side of the code highlights the first | element from line 12 to line 18, labeled "Heading row".
| |

Annotations:

- Line 19: "Loop starts" with an arrow pointing to the opening PHP tag.
- Line 20: "Keeps row" with an arrow pointing to the closing PHP tag.

1.5 Example...

```
23 <tr bgcolor="#CCCCCC">
24 <td><?php echo $rows[1]; ?> </td> Displays name
25 <td><?php echo $rows[2]; ?> </td> Displays email
26 <td><?php echo $rows[3]; ?> </td> Displays password
27 <td> </td>
28 </tr> Displays image Sets source
29 <?php
30 } ← Ends loop
31 ?>
32 </table> ← Ends table
33 </body>
34 </html>
```

1.5 Example...

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Records in user's table

+ Options

 16 umar umar@yahoo.com 123 uploads/18652umar.jpg

 With selected:

localhost/Lecture%2030/view.php

User Name	User Email	User Password	User Picture
umar	umar@yahoo.com	123	

Output from the table

2. CONNECTIONS: User login

- Form for user's input
- Login action page:
 - Connection with database
 - Retrieve user's input
 - Select a record from user's table with same email and password
 - Count the number of row in result
 - If one row is selected then fetch its values and store in session variable, otherwise send an error message on main page

2.1 CONNECTIONS: User login form

The screenshot shows a web browser window with the title "Connection Home Page - Google Chrome". The URL bar displays "localhost/CONNECTIONS/". The main content area features a dark red header with the word "CONNECTIONS" and the tagline "Get Connected". Below this, there are two forms: "User Login" and "User Registration".

User Login: This form contains fields for "Your ID" and "Your Password", each with a red double-headed arrow pointing to the text "Post method email" and "Password" respectively. A "Login" button is located below the password field.

User Registration: This form contains fields for "Your Full Name", "Your Email Address", "Your Password", and "Your Picture". The "Your Picture" field includes a "Choose File" button and a placeholder "No file chosen". A "Register" button is located at the bottom right of the registration form.

At the bottom of the page, a dark red footer bar contains the copyright notice "© all rights reserved".

Annotations:

- Post method email**: Points to the "Your ID" input field.
- Password**: Points to the "Your Password" input field.

2.2 CONNECTIONS: database connection

```
<?php  
mysql_connect("localhost","root","");
die("Error in connection");  
  
mysql_select_db("testdatabase") or die("Error
in Selection");  
?>
```

```
1 <?php
2 session_start();
3 include('connection.php');
```

2.3 CONNECTIONS: Retrieve user's input

```
4 $email      =  $_POST['email'];  
5 $password   =  $_POST['password'];
```

2.4 CONNECTIONS: Select record

```
6 $sql="select * from users  
7      where user_Email='$_email' AND  
8      user_Password='$_password'";  
9 $result      =  mysql_query($sql);
```

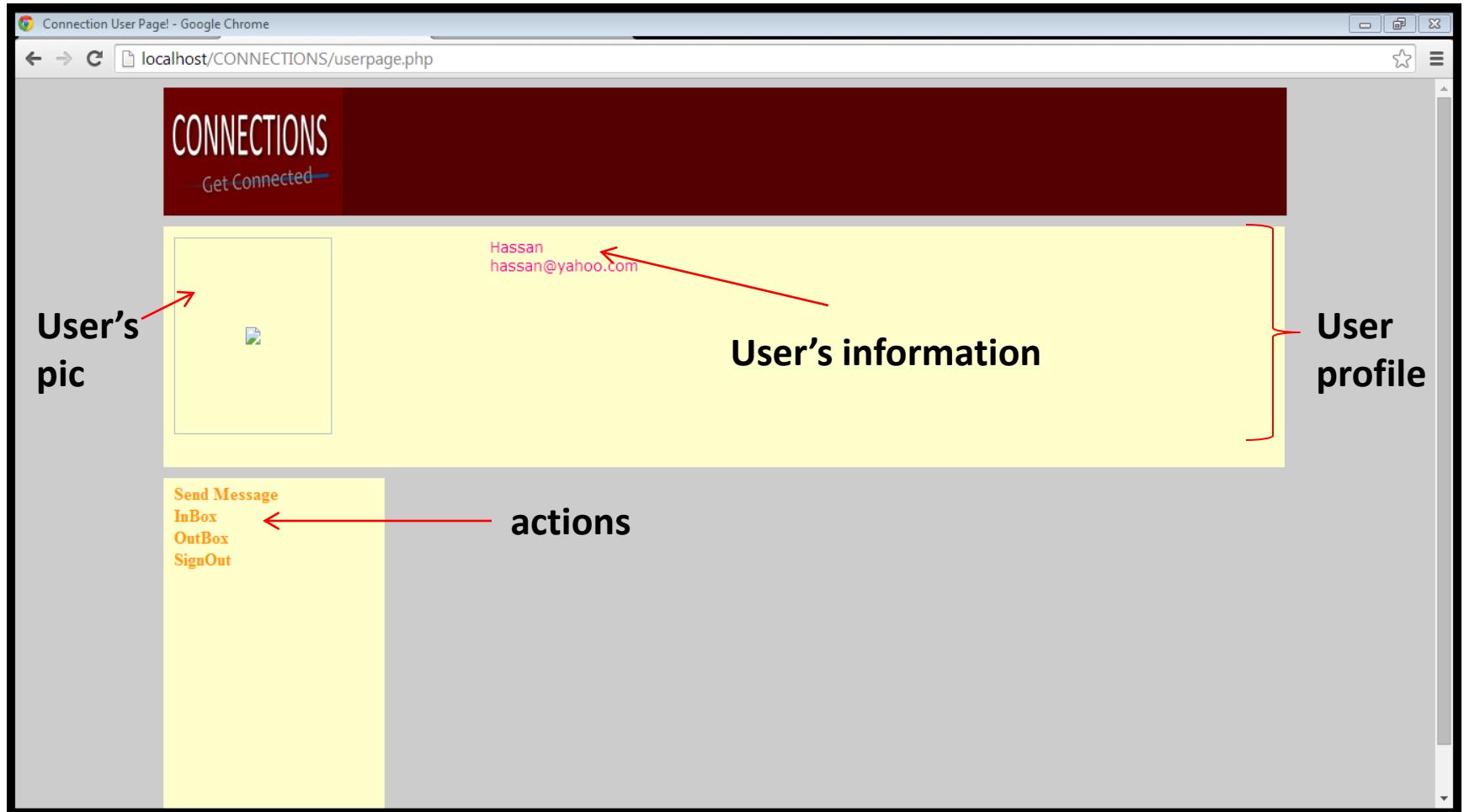
2.5 CONNECTIONS: Redirect

```
10 if (mysql_num_rows ($result) == 1) ← No. of rows selected
11 {
12     $row = mysql_fetch_array ($result); ← Fetch user information
13     $_SESSION['name'] = $row[1];
14     $_SESSION['email'] = $row[2]; } ← Register session
15     $_SESSION['password'] = $row[3]; variables
16     $_SESSION['picture'] = $row[4]; ← redirect
17     header ("location: userpage.php");
18 }
```



```
19 else
20     header ("location: index.php?loginmsg=Invalid
21     Username or Password"); } ← If user's
22     input is invalid
23 ?>
```

2.6 CONNECTIONS: user page



2.6 CONNECTIONS: user page...

```
1 <?php  
2 session_start();  
3 ?>
```

```
17 <div id="profilebox">  
18 <div class="imgage">  
19   
22 </div>  
23 <div class="profileinfo">  
24 <div> <?php echo $_SESSION['name']; ?></div>  
25 <div> <?php echo $_SESSION['email']; ?></div>  
26 </div>
```

Profile
div

Image div

User's
info

3. Deleting record in MySQL using PHP

- **Connection with database**
- **Delete the record**

3.1 Connection with database

```
<?php  
mysql_connect('localhost','root','','') or die("error  
in connection");  
  
mysql_select_db('testdatabase') or die("error  
in selection");  
  
?>
```

3.2 Delete the record

- **Delete SQL instruction:**

DELETE FROM table-name

WHERE condition

DELETE FROM users

WHERE user_Id =5

DELETE FROM users

WHERE user_Id >5

3.2 Delete the record...

```
<?php  
include('connection.php');  
$sql="DELETE FROM users  
      WHERE user_Id=5";  
mysql_query($sql);  
?>
```

3.3 Example

- **Display data from database in a table**
- **Add actions column**
- **In each record, add a delete button**
- **When delete button is clicked, delete that record**

1.3 Example...

localhost/lecture%2031/view.php

User Name	User Email	User Password	User Picture	Action
umar	umar@yahoo.com	123		<u>Delete</u>

3.3 Example...

```
<?php  
Connection with database  
Select data  




  <tr>  
    <th> User Name</th>  
    <th> User Email</th>  
    <th> User Password</th>  
    <th> User Picture</th>  
    <th> Actions </th>  
  </tr>
```

3.3 Example...

```
<?php  
while($rows = mysql_fetch_array($result))  
{  
?>  
<tr>  
<td> <?php echo $row[1]; ?> </td>  
<td> <?php echo $row[2]; ?> </td>  
<td> <?php echo $row[3]; ?> </td>  
<td> <img src=“<?php echo $row[4]; ?>”> </td>  
<td><a href=“delet.php?id=<?php echo $rows[0];?>”>Delete</a>  
</tr>  
<?php } ?>  
</table>
```

3.3 Example...

The diagram shows a line of code for generating a delete link:

```
<a href="delete.php?id=<?php echo $rows[0];?>">  
Delete</a>
```

Annotations explain various parts of the code:

- Link starts**: Points to the opening tag `<a`.
- Page name**: Points to the file name `delete.php`.
- Id name**: Points to the variable `$rows[0]` which is being assigned to the `id` attribute.
- Assigning the id of current record**: Points to the `echo` statement within the PHP block.
- End of link**: Points to the closing tag ``.
- Link text**: Points to the word `Delete` which is the text content of the link.

3.3 Example...

```
1 <html>
2 <head>
3 <title> Retrieving data</title>
4 </head>
5 <body>
6 <?php
7 include ('connection.php') ;
8 $sql      = "select * from users";
9 $result   = mysql_query($sql);
10 ?>
```

Starts HTML page

Connection to database

Selecting data

3.3 Example...

```
11 <table border="1">
12 <tr bgcolor="#CCCC00">
13 <th>User Name</th>
14 <th>User Email</th>
15 <th>User Password</th>
16 <th>User Picture</th>
17 <th>Action</th>
18 </tr>

19 <?php
20 while ($rows=mysql_fetch_array($result))
21 {
22 ?>
```

The code demonstrates the creation of an HTML table with a single heading row and five data rows. The heading row is styled with a yellow background color. The PHP loop begins at line 19, starting with the opening tag and the condition for fetching array results.

Heading row

Loop starts

3.3 Example...

```
23 <tr bgcolor="#CCCCCC">
24 <td><?php echo $rows[1]; ?> </td>
25 <td><?php echo $rows[2]; ?> </td>
26 <td><?php echo $rows[3]; ?> </td>
27 <td> </td>
```

Writing user's record

```
28 <td>
29 <a href="delete.php?id=<?php echo $rows[0]; ?>">
Delete</a>
30 </td>
```

Link to the delete.php

```
31 </tr>          Ends loop
32 <?php
33 }
34 ?>
35 </table>
```

3.3 Example...

```
1 <?php  
2 $id = $ GET['id'];  
3 include('connection.php');  
4 $sql="delete from users  
5 where user Id=$id";  
6 mysql_query($sql);  
7 ?>
```

Getting record id

DB connection

Delete instruction

Executing instruction

3.3 Example...

- Confirmation before delete:

```
28 <td>
29 <a href="delete.php?id=<?php echo $rows[0];?>"  
onClick="return confirm('Delete This account?')">
Delete</a></td>
```

On-click event

Link to page

Confirm box

4. Updating records in MySQL using PHP

- **Connection with database**
- **Update the record**

4. Updating records in MySQL using PHP...

- Update SQL instruction:

UPDATE table-name

SET column-names = values

WHERE condition

UPDATE users

SET user_Name = 'Ali',

 user_Email = 'ali@yahoo.com',

 user_Password='123'

WHERE user_Id=1

4. Updating records in MySQL using PHP...

```
<?php  
Include('connection.php');  
$sql =“UPDATE users  
    SET user_Name = ‘Ali’,  
        user_Email = ‘ali@yahoo.com’,  
        user_Password=‘123  
    Where user_Id=1”;  
mysql_query($sql);  
?>
```

4.1 Example

localhost/lecture%2031/viewwithedit.php

User Name	User Email	User Password	User Picture	Action
Umar	umar@gmail.com	1234		Delete Update
Saad	saad@gmail.com	123		Delete Update

Selects update

User Name	<input type="text" value="Umar"/>
User Email	<input type="text" value="umar@gmail.com"/>
User Password	<input type="text" value="1234"/>
<input type="button" value="Update"/>	

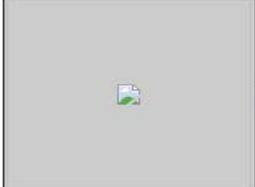
Form with previous values

4.1 Example...

User Name	Asad Mahmood
User Email	asad@gmail.com
User Password	1234
Update	

Values are updated

Updated record

User Name	User Email	User Password	User Picture	Action
Asad Mahmood	asad@gmail.com	1234		Delete Update
Saad	saad@gmail.com	123		Delete Update

4.1 Example...

View page:

```
28 <td>
29 <a href="delete.php?id=<?php echo $rows[0];?>" 
onClick="return confirm('Delete This account?')">
Delete</a> |
30 <a href="update.php?id=<?php echo $rows[0];?>" >
Update</a>
31 </td>
```



Link to update.php, record id is passed with link

4.1 Example...

- Get **id** of the record
- Connect to database
- Retrieve record from database against the **id**
- Start form
- Set retrieved values as **value** of the input fields

4.1 Example...

```
1 <html>
2 <head>
3 <title>Update data</title>
4 </head>
5 <body>

6 <?php
7 $id=$ GET['id'];
8 include ('connection.php') ;← DB connection

9 $sql="select *
       from users
      where user_Id=$id";
10
11
12
13
14 ?>
```

HTML page start

Gets record's id

DB connection

Data selection

Query execution

Record is retrieved

4.1 Example...

15
16

```
<form method="post" action="up_action.php"> Form starts
<table border="1" align="center" width="300"> Table starts
```

```
<input type="hidden" name="id" value="<?php
echo $id; ?>"> Id is sent as
hidden_value
```

17
18
19
20
21
22
23

```
label
<tr>
<td>User Name</td>
<td><input type="text" name="name"
value="<?php echo $row[1]; ?>">
</td>
</tr>
<tr> Value is set to user's
current name
```

4.1 Example...

```
23 <tr>
24 <td>User Email</td>
25 Email <td><input type="text" name="email"
26 value="<?php echo $row[2]; ?>" >
27 </td>
28 </tr>

29 <tr>
30 <td>User Password</td>
password <td><input type="text" name="password"
31 value="<?php echo $row[3]; ?>" >
32 </td>
33 </tr>
34
```

4.1 Example...

```
35      <tr>
36          <td colspan="2"><input type="submit" value=
37              "Update"></td>                                
38      </tr>
39      </table>
40      </form>
41  </body>
42  </html>
```

Submit button

4.1 Example...

- **Up_action.php** page:
- **Retrieve** users input
- **Connect** with database
- Execute **update** instruction
- **Redirect** to view page

4.1 Example...

```
1 <?php
2 $id          =  $_POST['id'];
3 $name        =  $_POST['name'];
4 $email       =  $_POST['email'];
5 $password    =  $_POST['password'];
6 include ('connection.php'); ← Connection to database
7 $sql="update users
8           set user_Name='$name',
9           user_Email='$email',
10          user_Password='$password'
11          Where user_Id='$id'";
12 mysql_query($sql);
13 header("location:viewwithedit.php");
14 ?>
```

Annotations:

- A red curly brace on the right side of lines 2-5 is labeled "User's input".
- A red curly brace on the right side of lines 8-11 is labeled "Update instruction".
- A red curly brace on the right side of line 13 is labeled "redirection".

5. Limit Data Selections From a MySQL Database

- MySQL provides a **LIMIT clause** that is used to specify the number of records to return.
- The **LIMIT clause** makes it easy to code multi page results or pagination with SQL, and is very useful on large tables. Returning a large number of records can impact on performance.

5. Limit Data Selections From a MySQL Database

- Assume we wish to select all records from 1 - 30 (inclusive) from a table called “users”. The SQL query would then look like this:
- \$sql = "SELECT * FROM Users **LIMIT 30**";
- When the SQL query above is run, it will return the first 30 records.

Summary of MYSQL DATABASE

- **Intro to MySQL**
- **Creating database in MySQL using WAMP**
- **Connecting PHP with MySQL**
- **Inserting data in database**
- **CONNECTIONS: user registration**
- **FILES super global variable**
- **File uploading in PHP**
- **Storing reference of uploaded file in database**
- **User registration in CONNECTIONS web application with file upload**

Summary

- Retrieving data from MySQL using PHP
- Connection with database
- Execute Select SQL command
 - Make display structure
 - Selecting Command
 - Counting rows
- Write data
- CONNECTIONS: login page
- Deleting record in MySQL using PHP
- Connection with database
 - Delete the record
 - Delete Command

Summary

- **Updating records in MySQL using PHP**
- **Connection with database**
 - Update the record
 - Update Command
- **Limit Data Selections**

THANK YOU