

# Lecture 23

## Database Connectivity in PHP

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# Summary of the previous lecture

- **Writing regular expression in PHP**
- **Validating user's input**
- **String functions**

# Outline

- **Creating database in MySQL using WAMP**
- **Connecting PHP with MySQL**
- **Inserting data in database**
- **CONNECTIONS: user registration**

# 1. Creating database in MySQL using WAMP

- Go to **home page** of WAMP server
- Select **PHP myadmin**
- Login to **MySql**
- Enter **database name** and click **create database** button

# 1. Creating database in MySQL using WAMP...

- **Creating a table in a database:**
- Select **database** from the list of databases
- Enter **table name** and **number** of columns
- Enter **name**, **data-type** and **other required properties** for columns
- Click **create** table button

## 2. Connecting PHP with MySQL

- `mysql_connect("hostname", "username", "password")`
  - `mysql_connect("localhost", "root", "")`
- `mysql_select_db("database name")`
  - `mysql_select_db("testdatabase")`

## 2. Connecting PHP with MySQL...

Connect with  
server

Host name

username

Empty password

Error  
message

```
1 <?php
2 mysql_connect("localhost", "root", "") or die("could
  not connect to the server");
3 mysql_select_db("testdatabase") or die("could not
  select the database");
4 ?>
```

Select database

Database name

# 3. Inserting data in database

- Create **form** to receive **input** from user
- On action page
  - **Retrieve** user's input
  - **Validate** user's input (**optional**)
  - Establish **connection** with database
  - Write **insert** command
  - **Execute** command



# 3. Inserting data in database...

- **Insert SQL command:**

**INSERT INTO `table\_name`**

**(list of columns)**

**VALUES (list of values)**

**INSERT INTO users**

**('user\_Name','user\_Email','user\_Password')**

**VALUES ('\$name','\$email','\$password')**

- **mysql\_query(query to execute)**

# 3. Inserting data in database...

localhost/lecture%2028/form.php

User <u>Registration</u> Form	
<input type="text"/>	
Name	<input type="text"/>
Email	<input type="text"/>
Password	<input type="text"/>
Your Picture	<input type="text"/>
<input type="button" value="Register"/>	

**post**  
**reg\_action.php**  
**for later use**  
**name**  
**email**  
**password**

# 3. Inserting data in database...

```
1 <?php
2 $name      = $_POST['name'];
3 $email     = $_POST['email'];
4 $password  = $_POST['password'];
5 include("connection.php");
6 $sql="INSERT INTO `testdatabase`.`users`
  (`user_Name`, `user_Email`, `user_Password`)
  VALUES ('$name', '$email', '$password')";
7 mysql_query($sql);
8 ?>
```

User's input is retrieved

Database connection

Insert command

Command is executed

# 3. Inserting data in database...

Header function

location

message

```
8 header("location:form.php?msg=Recod is added");  
9 ?>
```

```
15  
16  
17  
18  
19  
20
```

```
<td colspan="2">  
<?php  
error_reporting(0);  
echo $_GET['msg'];  
?>  
</td>
```

Close warnings

Message is displayed

# 3. Inserting data in database...

localhost/lecture%2028/form.php

User <u>Registration</u> Form	
Name	Saad
Email	saad@gmail.com
Password	123
Your Picture	
<input type="button" value="Register"/>	

message

localhost/lecture%2028/form.php?msg=Recod%20is%20added

User <u>Registration</u> Form	
Recod is added	
Name	
Email	
Password	
Your Picture	
<input type="button" value="Register"/>	

## 4. CONNECTIONS: user registration

- **Create database**
  - Database name: **connections**
  - Table name: **users**
- **Table columns:**
  - **user\_Id int 4**
  - **User\_Name text 25**
  - **User\_Email varchar 35**
  - **User\_Password varchar 20**
  - **User\_Picture varchar 50**

# 4. CONNECTIONS: user registration...

The screenshot shows a web browser window with the address bar displaying 'localhost/CONNECTIONS/'. The page features a dark red header with the text 'CONNECTIONS Get Connected'. Below the header, there are two main sections: 'User Login' and 'User Registration'. The 'User Registration' form includes fields for 'Your Full Name', 'Your Email Address', 'Your Password', and 'Your Picture'. Red arrows point from the text 'post name', 'email', and 'password' to the respective input fields. A 'Register' button is located at the bottom of the form. A footer at the bottom of the page reads '© all rights reserved'.

**post name**

**email**

**password**

© all rights reserved

## 4. CONNECTIONS: user registration...

Connection to  
the server

```
1 <?php
2 mysql_connect("localhost","root","") or die("Could
  not connect to the server");
3 mysql_select_db("connections") or die("Could not
  select the db");
4 ?>
```

Database name

Database selection



## 4. CONNECTIONS: user registration...

```
1 <?php
2 $name      = $_POST['name'];
3 $email     = $_POST['email'];
4 $password  = $_POST['password'];
```

User's input is retrieved

```
5 include("connection.php"); ← Database connection
```

```
6 if(!preg_match("|^[a-zA-Z ]{3,25}$|", $name))
7 {
8 header("location:index.php?regmsg=Invalid Name");
9 exit();
10 }
```

Name validation

## 4. CONNECTIONS: user registration...

```
11 if(!preg_match(  
    "|^[a-zA-Z0-9_]+@[a-z]{3,5}\.[a-z]{3}$|", $email))  
12 {  
13 header("location:index.php?regmsg=Invalid Email");  
14 exit();  
15 }
```

**Email  
validation**

```
16 $sql="INSERT INTO `connections`.`users`  
    (`user_Name`, `user_Email`, `user_Password`)  
    VALUES ('$name', '$email', '$password')";
```

**Insert  
command**

```
17 mysql_query($sql);  
18 header("location:index.php?regmsg=Recod is added")  
    ;  
19 ?>
```

**Command  
executed**

# Summary

- **Creating database in MySQL using WAMP**
- **Connecting PHP with MySQL**
- **Inserting data in database**
- **CONNECTIONS: user registration**

# References

- **Chapter 30, “Beginning PHP and MySQL”** by W. Jason Gilmore, Apress publisher, 4th edition; 2010, ISBN-13 (electronic): 978-1-4302-3115-8.