Chp 7:Working with forms and databases

I. Intro to web forms:

II. Form tag and form elements :

- Form Tag attributes : Name, action ,method,enctype(how encrypt data)
- Web forms have elements like button ,textbox ,radiobutton ,checkbox ,dropdown,etc

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III. Processing web forms includes activities like:

1. Submitting form data
2. Retrieving form data
3. Validating form data

1.Submitting Form:

2 types Form method :Get / post

Post:send large amount data to server

Form data Not visible in URL

Get:data send is visible in URL in the form of querystring

Used when a Small amount data send to server

1.Submitting Form data

```
<html>
<body>
<form action="welcome.php" method="post">
Name: <input type="text" name="name"><br>
E-mail: <input type="text" name="email"><br>
<input type="submit">
</form>
</body>
</html>
```

2.Retrieving form data

Common php functions to retrieve data are:

- $_POST["name"] —used with post method only
- $_GET["name"] —used with get method only
- $_REQUEST["email"] —used with both the methods

2.Retrieving form data: welcome.php example

-
  ```
  <html>
  <body>

  Welcome <?php echo $_POST["name"]; ?><br>
  Your email address is: <?php echo $_POST["email"]; ?>

  </body>
  </html>
  ```

Or

-
  ```
  Welcome <?php echo $_GET["name"]; ?><br>
  Your email address is: <?php echo $_GET["email"]; ?>
  ```

WHICH FORM METHOD USED?

```
IF($_SERVER[‘REQUEST_METHOD’] ==‘get’)
Echo “get method used”;
Else
Echo “post method used”;
```

3.Validating form data

- Display error message when field empty
- Enforce data rules

PHP and MySql

- Mysql is RDBMS by sun microsystems
- Php used create dynamic web pages
- Mysql is commonly used with php

Using PHP and MySql

1. Checking configuration- phpinfo()
2. Connecting to database: hostname,username,password
3. Selecting database
4. Adding table in database
5. Alter table
6. Insert/modify/retrieve data table

PHP and MySql:

2.Connecting to database:

Create connection:

```
$conn = new mysqli($servername, $username, $password, $dbname);
// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}
```

OR

```
mysql_connect($servername, $username, $password) or die(mysql_error());
Echo “conn successuful”;
```

We can put above code in conn.php and refer it as :

```
<?
include ‘conn.php’;
?>
```

PHP and MySql:

3.Selecting database: as the database server may have many databases.

```
mysql_connect($servername, $username, $password) or
die(mysql_error());
Echo “conn successuful”;
$query=“CREATE DATABASE mydb”;
Mysql_query($query) or die(mysql_error());
Echo “database created”;
mysql_close();
```

Using PHP and MySql

3.Selecting database: After creating ,how to select database:

```
mysql_connect($servername, $username, $password) or die(mysql_error());
Echo “conn successuful”;
$dbname=“mydb”;
Mysql_select_db($dbname) or die(mysql_error());
Echo “database selected”;
mysql_close();
```

Using PHP and MySql

4.Adding table in database: datatypes in MySql
char(),varchar(),text,int,float,double,decimal,date,datetime,timestamp,time, blob,etc

```
CREATE TABLE MyGuests (
   id INT(6) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
   firstname VARCHAR(30) NOT NULL,
   lastname VARCHAR(30) NOT NULL,
   email VARCHAR(50),
   reg_date TIMESTAMP
   )
```

Note another way of creating primary ley after defining column at the end ,

```
   PRIMARY KEY(id)
```

Using PHP and MySql

4.Adding table in database:

```
mysql_connect($servername, $username, $password) or die(mysql_error());
Echo “conn successuful”;
$dbname=“mydb”;
Mysql_select_db $dbname) or die(mysql_error());
Echo “database selected”;
$query=“CREATE TABLE MyGuests (
id INT(6) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
firstname VARCHAR(30) NOT NULL,
lastname VARCHAR(30) NOT NULL,
email VARCHAR(50),
reg_date TIMESTAMP
)  ”;
Mysql_query($query) or die(mysql_error());
Echo “table created”;


mysql_close();
```

Using PHP and MySql

5.Alter table:

Alter table emp **drop** column empaddress

Alter table emp **add** column empaddress varchar(30)

Alter table emp **change** empaddress empaddr varchar(30)

Alter table emp **modify** empaddr varchar(50)

Using PHP and MySql

6.Insert/modify/retreive data table

```
$sql = "INSERT INTO MyGuests (firstname, lastname, email)
VALUES ('John', 'Doe', 'john@example.com');";
$sql = “update MyGuests set firstname=‘Jona’ where id=1”;

$sql = "SELECT id, firstname, lastname FROM MyGuests";

$sql = “delete FROM MyGuests where id=1";
```

Running php files using xampp:

Steps to run php file:

1.Download and Install xampp from https://www.apachefriends.org/download.html

2.open xampp

3.Change both the phpconfig files to refer to port 8081 instead of 8080

4.Also change port for mysql from 443 to any unused port like 4433 in settings

5.run mysql –click admin and phpmyadmin opens in browser

6.click create database—create tables using sql or designer

7.design php form using notepad/netbeans write code to insert,update,delete and display records from db ..save pages in httpdocs folder in xampp setup location

8.Run it in browser localhost:8081\\myproject\index.php

Php and mysql Example

```
<?php
   $servername = "localhost";
   $username = “root@localhost";
   $password = “ ";
   $dbname = "myDB";
   // Create connection
   $conn = new mysqli($servername, $username, $password, $dbname);
   // Check connection
   if ($conn->connect_error) {
       die("Connection failed: " . $conn->connect_error);
   }
   $sql = "INSERT INTO MyGuests (firstname, lastname, email)
   VALUES ('John', 'Doe', 'john@example.com')";
   if ($conn->query($sql) === TRUE) {
       echo "New record created successfully";
   } else {
       echo "Error: " . $sql . "<br>" . $conn->error;
   }
   $conn->close();
```

Php and mysql Example

```
CREATE TABLE MyGuests (
  id INT(6) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
  firstname VARCHAR(30) NOT NULL,
  lastname VARCHAR(30) NOT NULL,
  email VARCHAR(50),
  reg_date TIMESTAMP
  )
```

Php and mysql Example

```
$sql = "INSERT INTO MyGuests (firstname, lastname, email)
  VALUES ('John', 'Doe', 'john@example.com');";
  $sql .= "INSERT INTO MyGuests (firstname, lastname, email)
  VALUES ('Mary', 'Moe', 'mary@example.com');";
  $sql .= "INSERT INTO MyGuests (firstname, lastname, email)
  VALUES ('Julie', 'Dooley', 'julie@example.com')";

  if ($conn->multi_query($sql) === TRUE) {
     echo "New records created successfully";
  } else {
     echo "Error: " . $sql . "<br>" . $conn->error;
  }
```

Php and mysql Example : select

```
// Create connection
    $conn = new mysqli($servername, $username, $password, $dbname);
    // Check connection
    if ($conn->connect_error) {
        die("Connection failed: " . $conn->connect_error);
    }

    $sql = "SELECT id, firstname, lastname FROM MyGuests";
    $result = $conn->query($sql);

    if ($result->num_rows > 0) {
        // output data of each row
        while($row = $result->fetch_assoc()) {
            echo "id: " . $row["id"]. " - Name: " . $row["firstname"]. " " . $row["lastname"]. "<br>";
        }
    } else {
        echo "0 results";
    }
```

Php and mysql Example :delete

```
// sql to delete a record
  $sql = "DELETE FROM MyGuests WHERE id=3";

  if ($conn->query($sql) === TRUE) {
      echo "Record deleted successfully";
  } else {
      echo "Error deleting record: " . $conn->error;
  }
```

Php and mysql Example:update

```
$sql = "UPDATE MyGuests SET lastname='Doe' WHERE id=2";

  if ($conn->query($sql) === TRUE) {
     echo "Record updated successfully";
  } else {
     echo "Error updating record: " . $conn->error;
  }


$sql = "SELECT * FROM Orders LIMIT 10 OFFSET 15";
```

Chapter 8:Exploring cookies,Sessions and PHP security

cookie

- A cookie is a small file that the server embeds on the user's computer. Each time the same computer requests a page with a browser, it will send the cookie too
- setcookie(*name, value, expire, path, domain, secure, httponly*);
- Only the *name* parameter is required. All other parameters are optional.
- The following example creates a cookie named "user" with the value "John Doe". The cookie will expire after 3600 sec

Create cookie

-
  ```
  <?php
  $cookie_name = "user";
  $cookie_value = "John Doe";
  setcookie($cookie_name, $cookie_value, time() + 3600, "/"); // 86400 = 1 day into seconds
  ?>
  <html>
  <body>

  <?php
  if(!isset($_COOKIE[$cookie_name])) {
      echo "Cookie named '" . $cookie_name . "' is not set!";
  } else {
      echo "Cookie '" . $cookie_name . "' is set!<br>";
      echo "Value is: " . $_COOKIE[$cookie_name];
  }
  ?>

  </body>
  </html>
  ```

Delete cookie

-
  ```
  <?php
  // set the expiration date to one hour ago
  setcookie("user", "", time() - 3600);
  ?>
  <html>
  <body>

  <?php
  echo "Cookie 'user' is deleted.";
  ?>

  </body>
  </html>
  ```

Check if cookie enabled

-
  ```
  <?php
  setcookie("test_cookie", "test", time() + 3600, '/');
  ?>
  <html>
  <body>

  <?php
  if(count($_COOKIE) > 0) {
      echo "Cookies are enabled.";
  } else {
      echo "Cookies are disabled.";
  }
  ?>

  </body>
  </html>
  ```

sessions

- Session stores diff info for each user accessing website
- Created at server and client side
- Session_start() called at beginning of webpage

"demo_session1.php"

```
<?php
// Start the session
session_start();
?>
<!DOCTYPE html>
<html>
<body>

<?php
// Set session variables
$_SESSION["favcolor"] = "green";
$_SESSION["favanimal"] = "cat";
echo "Session variables are set.";
?>

</body>
</html>
```

demo_session2.php

- all session variable values are stored in the global $_SESSION variable
-
  ```
  <?php
  session_start();
  ?>
  <!DOCTYPE html>
  <html>
  <body>

  <?php
  // Echo session variables that were set on previous page
  echo "Favorite color is " . $_SESSION["favcolor"] . ".<br>";
  echo "Favorite animal is " . $_SESSION["favanimal"] . ".";
  ?>

  </body>
  </html>
  ```

Print session variables for a user

-
  ```
  <?php
  session_start();
  ?>
  <!DOCTYPE html>
  <html>
  <body>

  <?php
  print_r($_SESSION);
  ?>

  </body>
  </html>
  ```

Modify

-
  ```
  <?php
  session_start();
  ?>
  <!DOCTYPE html>
  <html>
  <body>

  <?php
  // to change a session variable, just overwrite it
  $_SESSION["favcolor"] = "yellow";
  print_r($_SESSION);
  ?>

  </body>
  </html>
  ```

Destroy a PHP Session

-
  ```
  <?php
  session_start();
  ?>
  <!DOCTYPE html>
  <html>
  <body>

  <?php
  // remove all session variables
  session_unset();

  // destroy the session
  session_destroy();
  ?>

  </body>
  </html>
  ```