Practical no: 6

Problem Statement: Design and develop dynamic web application using PHP and MySQL as a back-end for employee data with insert, delete, view and update operations.

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Practical 6

Title: Add dynamic web application essence using PHP, HTML, MYSQL.

Problem statement: Design and develop dynamic web application using PHP and MYSQL as a back-end for employee data with insert, delete, view and update operations.

Theory Concepts:

1. PHP

The PHP Hypertext Preprocessor (PHP) has began as a little open source venture that advanced as an ever increasing number of individuals discovered how valuable it was. Rasmus Lerdorf released the principal from of PHP route in 1994. PHP is a recursive acronym for 'PHP: Hypertext Preprocessor.

PHP is a serverside scripting dialect that is installed in HTML. It is utilized to oversee dynamic substance, databases, session following, even from whole internet business locales. It is incorporated. with various prevalent databases, including MYSQL, PostgresQL, Oracle, Sybase, Informix and Microsoft SQL server.

PHP is pleasingly zippy in its execution, particularly when gathered as an Apache module on the Unix side. The MYSQL server, once began, executes even extremly complex questions with colossal outcome

sets in record-setting time.

PHP bolsters a substantial number of real conventions, for example, POP3, IMAP, LOAP. PHP4 included help for Java and conveyed question design, making h-level improvement a plausibility out of a blue. PHP is excusing: PHP dialect tries to be as pardoning as would be prudent. PHP syntax is C-like.

PHP performs framework capacities i.c. from documents on a framework it can make open, read, compose and close them. PHP can deal with frames i.e. accumulate information from records, spare information to a document; through email you can send information, return information to the client.

You include, erase, adjust components inside your database through PHP. Access treats factors and set treats. Utilizing PHP, you can confine clients to get to a few pages of your side. It can encode information.

Example:
"Hello World" Script in PHP.
    To get a feel for PHP, first start with simple PHP scripts. Since "Hello World!" is an essential example, first we will create a friendly little "Hello, World!" script. As mentioned earlier, PHP is embedded in HTML. That means that in amongst your normal HTML you'll have PHP statements like —

```
<html>
<head>
<title> Hello World </title>
</head>
<body>
<?php echo ( "HelloPhp"); ?>
</body>
</html>
```

To create and run PHP web pages three fundamental parts should be introduced on your PC framework.

Web Server - PHP will work with for all intents and purposes all Web Server Programming, including Microsoft's Internet Information Server however than regularly utilized is unreservedly accessible Apache server.

Database - PHP will work with for all intents and purposes all database programming, including Oracle and Sybase yet most regularly utilized is unhavuniabitedly accessible Mysql database.

PHP Parser- keeping in mind the end goal to process PHP content directions a parser must be introduced to create HTML yield that can be sent to the Web Browser. This instructional exercise will manage you how to introduce PHP parser on your PC.

2. MySQL.

It is most famous Open source Relational SQL database Management System. MySQL is outstanding amongst other RDBMS being utilized for creating different online programming applications. MySQL is created, advertised and upheld by MySQL AB, which is a Swedish organization. This instructional exercise will give you a fast begin to MySQL and make you OK with MySQL programming.

MySQL Database

MySQL is a quick, simple to utilize RDBMS being utilized for some little and huge organizations. MySQL is produced, showcased and upheld by MySQL AB, which is a Swedish organization. MySQL is winding up so famous as a result of numerous great reasons:

1) MySQL is discharged under an open-source permit. So you don't have anything to pay to utilize it.

2) MySQL is a capable program in its own particular right. It handles a huge subset of usefulness of the most costly and intense database bundles.

3) MySQL utilizes a standard type of the outstanding SQL information dialect.

4) MySQL takes a shot at many working frameworks and with numerous dialects including PHP, PERL, C, c++,

5) MySQL works rapidly and functions admirably even with extensive informational indexes.

6) MySQL is amicable to PHP, the most refreshing dialect for web advancement.

7] MySQL is adaptable. The open-source GPL permit enables developers to alter the MySQL programming to fit their own particular surroundings.
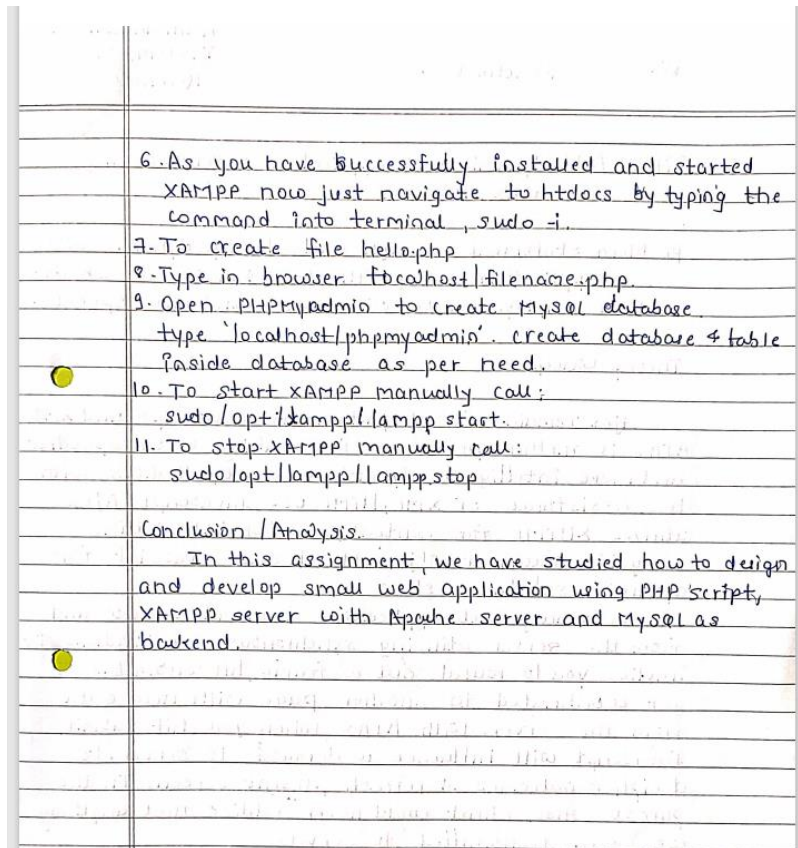
* Technology | Tool
i) Technology is to be used in PHP and tool XAMPP server is to be used to execute PHP web application.
2) XAMPP server embeds the PHP, MySQL and phpmyadmin these three tool must be required to run php web application.

* Design | Execution steps:

Steps to install XAMPP and configure the PHP, MySQL serv.
1. Download the XAMPP using,
   https://www.apachefriends.org/download.html.
2. Install XAMPP with command in terminal.
   sudo ./xampp-linux-x64-7.2.0-0-installer.run.
3. After ab
4. ove command following installation window will appear. Click on next until all installation windows are completed. During installation XAMPP look like as follow. After successful completion of installation. It will ask to run XAMPP and here say to run. After run the MySQL and Apache web server should be in running state.
4. Now type ."Localhost" in URL in browser.
5. To become root just open the terminal and type sudo -i, after you become the root just type cd/ "opt" is directory. in which XAMPP is installed by default.

6. As you have successfully installed and started XAMPP now just navigate to htdocs by typing the command into terminal, sudo -i.

7. To create file hello.php

8. Type in browser localhost/filename.php

9. Open PHPMyadmin to create Mysql database type 'localhost/phpmyadmin'. create database & table inside database as per need.

10. To start XAMPP manually call:
   sudo /opt/lampp/lampp start.

11. To stop XAMPP manually call:
   sudo /opt/lampp/lampp.stop

Conclusion / Analysis.
   In this assignment, we have studied how to design and develop small web application using PHP script, XAMPP server with Apache server and Mysql as backend.

CODE:

```
1. index.php

<?php
//including the database connection file include_once("config.php");
//fetching data in descending order (lastest entry first)
//$result = mysql_query("SELECT * FROM users ORDER BY id DESC"); // mysql_query is deprecated
$result = mysqli_query($mysqli, "SELECT * FROM users ORDER BY id DESC"); // using mysqli_query instead?>
<html>
<head>
<title>Homepage</title>
</head>
<body>
<a href="add.html">Add New Data</a><br/><br/>
<table width='80%' border=0
<tr bgcolor='#CCCCCC'>
<td>Name</td>
<td>Age</td>
<td>Email</td>
<td>Update</td>
</tr>
<?php
//while($res = mysql_fetch_array($result)) { // mysql_fetch_array is deprecated, we need to
use mysqli_fetch_array
while($res = mysqli_fetch_array($result)) {
echo "<tr>";
echo "<td>".$res['name']."</td>";
echo "<td>".$res['age']."</td>";
echo "<td>".$res['email']."</td>";
echo "<td><a href=\"edit.php?id=$res[id]\">Edit</a> | <a
href=\"delete.php?id=$res[id]\" onClick=\"return confirm('Are you sure you want to
delete?')\">Delete</a></td>";
}
?>
</table>
</body>
</html>
```

2. add.html

```html
<html>
<head>
<title>Employee Data</title>
</head>
<body>
<a href="index.php">Home</a>
<br/><br/>
<form action="add.php" method="post" name="form1">
<table width="25%" border="0">
<tr>
<td>Name</td>
<td><input type="text" name="name"></td>
</tr>
<tr>
<td>Age</td>
<td><input type="text" name="age"></td>
</tr>
<tr>
<td>Email</td>
<td><input type="text" name="email"></td>
</tr>
<tr>
<td></td>
<td><input type="submit" name="Submit" value="Add"></td>
</tr>
</table>
</form>
</body>
</html>
```

*Untitled - Notepad — □ ×

File Edit Format View Help

3. add.php

```php
<html>
<head>
<title>Add Data</title>
</head>
<body>
<?php
//including the database connection file
include_once("config.php");
if(isset($_POST['Submit'])) {
$name = mysqli_real_escape_string($mysqli, $_POST['name']);
$age = mysqli_real_escape_string($mysqli, $_POST['age']);
$email = mysqli_real_escape_string($mysqli, $_POST['email']);
// checking empty fields
if(empty($name) || empty($age) || empty($email)) {
if(empty($name)) {
echo "<font color='red'>Name field is empty.</font><br/>";
}
if(empty($age)) {
echo "<font color='red'>Age field is empty.</font><br/>";
}
if(empty($email)) {
echo "<font color='red'>Email field is empty.</font><br/>";
}
//link to the previous page
echo "<br/><a href='javascript:self.history.back();'>Go Back</a>";
} else {
// if all the fields are filled (not empty)
//insert data to database
$result = mysqli_query($mysqli, "INSERT INTO users(name,age,email)
VALUES('$name','$age','$email')");
//display success message
echo "<font color='green'>Data added successfully.";
echo "<br/><a href='index.php'>View Result</a>";
}
}
?>
</body>
</html>
```

4. edit.php

```php
<?php
// including the database connection file include_once("config.php");
if(isset($_POST['update']))
{
$id = mysqli_real_escape_string($mysqli, $_POST['id']);
$name = mysqli_real_escape_string($mysqli, $_POST['name']);
$age = mysqli_real_escape_string($mysqli, $_POST['age']);
$email = mysqli_real_escape_string($mysqli, $_POST['email']);
// checking empty fields
if(empty($name) || empty($age) || empty($email)) {
if(empty($name)) {
echo "<font color='red'>Name field is empty.</font><br/>";
}
if(empty($age)) {
echo "<font color='red'>Age field is empty.</font><br/>";
}
if(empty($email)) {
echo "<font color='red'>Email field is empty.</font><br/>";
}
} else {
//updating the table
$result = mysqli_query($mysqli, "UPDATE users SET
name='$name',age='$age',email='$email' WHERE id=$id");
//redirectig to the display page. In our case, it is index.php
header("Location: index.php");
}
}
?>
<?php
//getting id from url
$id = $_GET['id'];
//selecting data associated with this particular id
$result = mysqli_query($mysqli, "SELECT * FROM users WHERE id=$id");
while($res = mysqli_fetch_array($result))
$name = $res['name'];
$age = $res['age'];
$email = $res['email'];
}
?>
```

```php
}
?>
<html>
<head>
<title>Edit Data</title>
</head>
<body>
<a href="index.php">Home</a>
<br/><br/>
<form name="form1" method="post" action="edit.php">
<table border="0">
<tr>
<td>Name</td>
<td><input type="text" name="name" value="<?php echo
$name;?>"></td>
</tr>
<tr>
<td>Age</td>
<td><input type="text" name="age" value="<?php echo
$age;?>"></td>
</tr>
<tr>
<td>Email</td>
<td><input type="text" name="email" value="<?php echo
$email;?>"></td>
</tr>
<tr>
<td><input type="hidden" name="id" value=<?php echo
$_GET['id'];?>></td>
<td><input type="submit" name="update" value="Update"></td>
</tr>
</table>
</form>
</body>
</html>
```

5. delete.php

```php
<?phpinclude("config.php");
$id = $_GET['id'];
$result = mysqli_query($mysqli, "DELETE FROM users WHERE id=$id");
header("Location:index.php");
?>
```

6. config.php

```php
<?php
$database = 'localhost';
$dbName = 'test';
$dbUser = 'root';
$dbPass = '';
$mysqli = mysqli_connect($database, $dbUser, $dbPass, $dbName);
?>
```
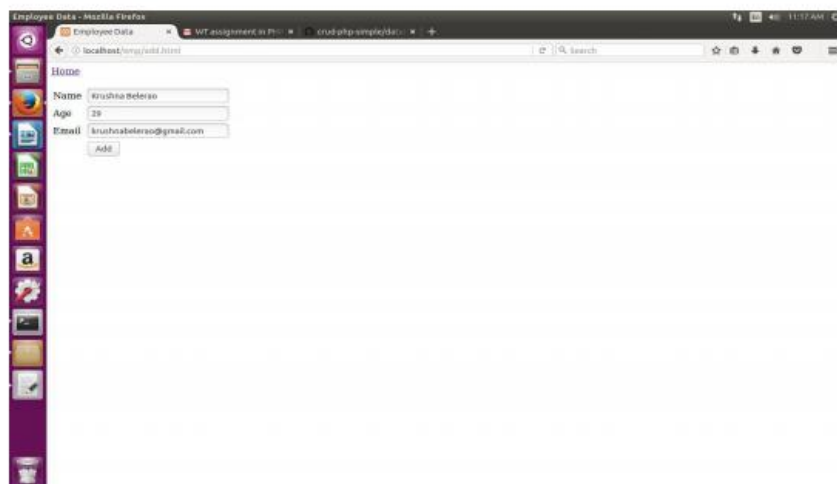
7. database.sql

```sql
a. create database emp;
b. use emp;
c. CREATE TABLE `users` (
`id` int(11) NOT NULL auto_increment, `name` varchar(100) NOT NULL, `age` int(3) NOT NULL, `email` varchar(100) NOT NULL, PRIMARY KEY (`id`)
);
```

OUTPUT:

2. Second Window click on "Add New Data" see top left corner link

4. Click on "View Result " below image will be displayed with all details in database.