



LAB REPORT

04

CSE416: Web Engineering Lab

Experiment Title: PHP MySql

Submitted To

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1. Objective

The objective of this experiment is to understand and practice basic PHP syntax, variables, data types, operators, and output statements by writing a simple PHP script. Additionally, it focuses on performing CRUD (Create, Read, Update, Delete) operations using PHP and MySQL.

2. Tools and Technologies Used

Tool / Technology	Purpose
XAMPP	Run PHP and MySQL locally
VS Code / Sublime Text	Writing and editing PHP code
Web Browser (Chrome)	Testing PHP scripts
MySQL Database	Store student data

3. Explanation

1. Mysqli and mysqli_connect()

- o `mysqli_connect()` is used to establish a connection between PHP and MySQL.
- o **Syntax:**
- o `$conn = mysqli_connect($servername, $username, $password, $dbname);`
- o If the connection fails, `mysqli_connect_error()` returns the error.

2. SQL Queries for Inserting and Retrieving Data

- o `INSERT INTO` → Adds new records to a table.
- o `SELECT` → Retrieves records from a table.
- o `UPDATE` → Updates existing records.
- o `DELETE` → Deletes records from a table.

3. Executing Queries with mysqli_query()

- o PHP executes SQL queries using `mysqli_query($conn, $sql)` and returns results or success/failure status.

4. Fetching Results with mysqli_fetch_assoc()

- o Converts query result into an associative array for easy access:

```
while($row = mysqli_fetch_assoc($result)) {  
  
    echo $row['column_name'];  
  
}
```

4. Code Implementation

Database and Table Creation

```
CREATE DATABASE user_info;
USE user_info;

CREATE TABLE user_info (
    id INT AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(100) NOT NULL,
    email VARCHAR(100) NOT NULL,
    dept VARCHAR(50) NOT NULL
);
```

db_connect.php

```
<?php
$servername = "localhost";
$username = "root";    // default XAMPP username
$password = "";        // default XAMPP password
$dbname = "user_info"; // your database name

// Create connection
$conn = mysqli_connect($servername, $username, $password, $dbname);

// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}
?>
```

insert.php

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

if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $name = $_POST['name'];
    $email = $_POST['email'];
    $dept = $_POST['dept'];

    $sql = "INSERT INTO user_info (name, email, dept) VALUES ('$name',
'email', '$dept')";

    if (mysqli_query($conn, $sql)) {
        echo "<div class='alert alert-success mt-3'>New record
inserted successfully!</div>";
    } else {
        echo "<div class='alert alert-danger mt-3'>Error: " .
mysqli_error($conn) . "</div>";
    }
}
?>

<!DOCTYPE html>

<html>

<head>

    <title>Add Student</title>
```

```

    <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.
min.css" rel="stylesheet">
</head>
<body class="bg-light">
<div class="container mt-5">
    <div class="row justify-content-center">
        <div class="col-md-6">
            <div class="card shadow">
                <div class="card-header bg-success text-white">
                    <h2 class="mb-0" style="font-size: 1.5rem; Text-
align: center;">Add Student</h2>
                </div>
                <div class="card-body">
                    <form method="POST" action="">
                        <div class="mb-3">
                            <label class="form-label">Name</label>
                            <input type="text" name="name"
class="form-control" required>
                        </div>
                        <div class="mb-3">
                            <label class="form-label">Email</label>
                            <input type="email" name="email"
class="form-control" required>
                        </div>
                        <div class="mb-3">

```

```
        <label class="form-  
label">Department</label>  
        <input type="text" name="dept"  
class="form-control" required>  
    </div>  
    <button type="submit" class="btn btn-success  
w-100">Add</button>  
    </form>  
    </div>  
    </div>  
    </div>  
</div>  
</body>  
</html>
```

retrieve.php

```
<?php  
include 'db_connect.php';  
  
$sql = "SELECT * FROM user_info";  
$result = mysqli_query($conn, $sql);  
?>  
<!DOCTYPE html>  
<html>  
<head>
```

```

<title>Student Records</title>

<link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.
min.css" rel="stylesheet">
</head>
<body class="bg-light">
<div class="container mt-5">
    <div class="card shadow">
        <div class="card-header bg-info text-white">
            <h2 class="mb-0">Student Records</h2>
        </div>
        <div class="card-body">
            <?php
            if (mysqli_num_rows($result) > 0) {
                echo "<table class='table table-striped table-
bordered'>";
                echo "<thead class='table-dark'>
                    <tr>
                        <th>ID</th>
                        <th>Name</th>
                        <th>Email</th>
                        <th>Department</th>
                    </tr>
                </thead>
                <tbody>";
                while ($row = mysqli_fetch_assoc($result)) {
                    echo "<tr>

```

```

        <td>".$row['id'].</td>
        <td>".$row['name'].</td>
        <td>".$row['email'].</td>
        <td>".$row['dept'].</td>
    </tr>";
    }
    echo "</tbody></table>";
} else {
    echo "<div class='alert alert-warning'>No records
found.</div>";
}
?>
</div>
</div>
</div>
</body>
</html>

```

update.php

```

<?php
include 'db_connect.php';

if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $id = $_POST['id'];
    $name = $_POST['name'];
    $email = $_POST['email'];
}

```



```

    $dept = $_POST['dept'];

    $sql = "UPDATE user_info SET name='$name', email='$email',
dept='$dept' WHERE id=$id";

    if (mysqli_query($conn, $sql)) {
        echo "<div class='alert alert-success mt-3'>Record updated
successfully!</div>";
    } else {
        echo "<div class='alert alert-danger mt-3'>Error: " .
mysqli_error($conn) . "</div>";
    }
}
?>
<!DOCTYPE html>
<html>
<head>
    <title>Update Student Record</title>
    <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.
min.css" rel="stylesheet">
</head>
<body class="bg-light">
<div class="container mt-5">
    <div class="row justify-content-center">
        <div class="col-md-6">
            <div class="card shadow">

```

```
<div class="card-header bg-primary text-white">
  <h2 class="mb-0">Update Student Record</h2>
</div>

<div class="card-body">
  <form method="POST" action="">
    <div class="mb-3">
      <label class="form-label">ID</label>
      <input type="text" name="id" class="form-
control" required>

    </div>
    <div class="mb-3">
      <label class="form-label">Name</label>
      <input type="text" name="name"
class="form-control" required>

    </div>
    <div class="mb-3">
      <label class="form-label">Email</label>
      <input type="email" name="email"
class="form-control" required>

    </div>
    <div class="mb-3">
      <label class="form-
label">Department</label>
      <input type="text" name="dept"
class="form-control" required>

    </div>
```

```
<button type="submit" class="btn btn-primary  
w-100">Update</button>  
  
</form>  
  
</div>  
  
</div>  
  
</div>  
  
</div>
```

delete.php

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

if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $id = $_POST['id'];

    $sql = "DELETE FROM user_info WHERE id=$id";

    if (mysqli_query($conn, $sql)) {
        echo "<div class='alert alert-success mt-3'>Record deleted
successfully!</div>";
    } else {
        echo "<div class='alert alert-danger mt-3'>Error: " .
mysqli_error($conn) . "</div>";
    }
}
```

```

    }
}
?>
<!DOCTYPE html>
<html>
<head>
    <title>Delete Student Record</title>
    <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.
min.css" rel="stylesheet">
</head>
<body class="bg-light">
<div class="container mt-5">
    <div class="row justify-content-center">
        <div class="col-md-6">
            <div class="card shadow">
                <div class="card-header bg-danger text-white">
                    <h2 class="mb-0">Delete Student Record</h2>
                </div>
                <div class="card-body">
                    <form method="POST" action="">
                        <div class="mb-3">
                            <label class="form-label">ID</label>
                            <input type="text" name="id" class="form-
control" required>
                        </div>

```

```
<button type="submit" class="btn btn-danger w-  
100">Delete</button>  
  
    </form>  
  
    </div>  
  
    </div>  
  
    </div>  
  
    </div>  
  
</div>  
</body>  
</html>
```

5. Output / Screenshots

Add Student

Name

Email

Department

Add

Fig 5.1: Insert Form

New record inserted successfully!

Add Student

Name

Email

Department

Add

Fig 5.1: Insert Form filled and new record inserted successfully

Student Records			
ID	Name	Email	Department
2	Md. Fahimur Rahman	rahman15-5953@diu.edu.bd	Computer Science and Engineering

Fig 5.3: Records retrieved in a table

Record updated successfully!

Update Student Record

ID

Name

Email

Department

Update

Fig 5.4: Record update successfully

Student Records			
ID	Name	Email	Department
2	Md. Fahimur Rahman (Fahim)	rahman15-5953@diu.edu.bd	Computer Science and Engineering

Fig 5.4: Updated record success

Record deleted successfully!

Delete Student Record

ID

Delete

Fig 5.5: Record deleted successfully

Student Records	
No records found.	

Fig 5.6: Deleted record success

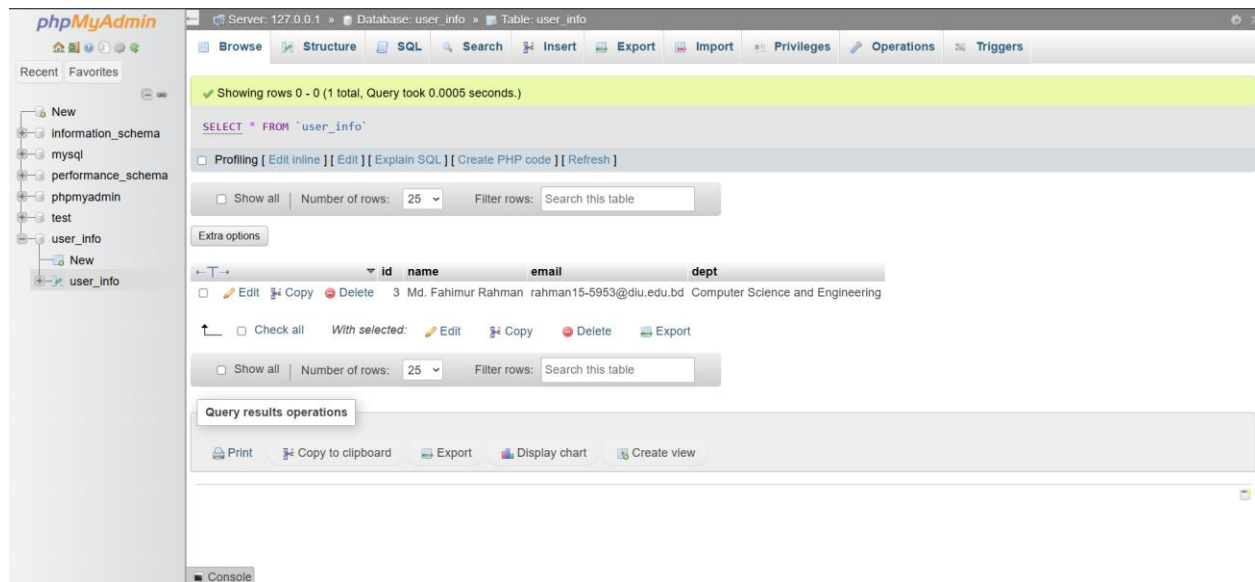


Fig 5.7: Successfully connect with database

6. Conclusion

- Learned to connect PHP with MySQL using `mysqli_connect()`.
- Performed CRUD operations: Insert, Retrieve, Update, Delete.
- Practiced PHP form handling, SQL queries, and displaying data in HTML tables.
- Gained hands-on experience for building dynamic web applications with PHP and MySQL.