

## PHP and MySQL Module Implementation

### Module 1: Database Connection

This module establishes a connection to the MySQL database.

#### Code:

```
<?php
$servername = "localhost";
$username = "root";
$password = ""; // Set your password if any
$dbname = "your_database_name";

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

// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}
echo "Connected successfully";
?>
```

### Module 2: User Registration

This module creates a user registration form and inserts user data into the database.

#### Code:

```
<?php
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $name = $_POST['name'];
    $email = $_POST['email'];
    $password = $_POST['password'];
```

```
$sql = "INSERT INTO users (name, email, password) VALUES ('$name',  
'$email', '$password')";
```

```
if ($conn->query($sql) === TRUE) {  
    echo "New record created successfully";  
} else {  
    echo "Error: " . $sql . "<br>" . $conn->error;  
}  
}  
?>  
<form method="post" action="">  
    Name: <input type="text" name="name"><br>  
    Email: <input type="text" name="email"><br>  
    Password: <input type="password" name="password"><br>  
    <input type="submit" value="Register">  
</form>
```

### Module 3: User Login

This module authenticates users with a login form.

#### Code:

```
<?php  
if ($_SERVER["REQUEST_METHOD"] == "POST") {  
    $email = $_POST['email'];  
    $password = $_POST['password'];  
  
    $sql = "SELECT * FROM users WHERE email='$email' AND  
password='$password'";  
    $result = $conn->query($sql);  
  
    if ($result->num_rows > 0) {  
        echo "Login successful";  
    } else {
```

```

        echo "Invalid email or password";
    }
}
?>
<form method="post" action="">
    Email: <input type="text" name="email"><br>
    Password: <input type="password" name="password"><br>
    <input type="submit" value="Login">
</form>

```

## Module 4: Viewing User Data

This module retrieves and displays all users from the database.

### Code:

```

<?php
$sql = "SELECT * FROM users";
$result = $conn->query($sql);

if ($result->num_rows > 0) {
    while($row = $result->fetch_assoc()) {
        echo "id: " . $row["id"]. " - Name: " . $row["name"]. " - Email: " .
        $row["email"]. "<br>";
    }
} else {
    echo "0 results";
}
?>

```

## Module 5: Updating User Data

This module updates user information in the database.

### Code:

```
<?php
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $id = $_POST['id'];
    $name = $_POST['name'];
    $email = $_POST['email'];

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

    if ($conn->query($sql) === TRUE) {
        echo "Record updated successfully";
    } else {
        echo "Error updating record: " . $conn->error;
    }
}
?>
<form method="post" action="">
    User ID: <input type="text" name="id"><br>
    Name: <input type="text" name="name"><br>
    Email: <input type="text" name="email"><br>
    <input type="submit" value="Update">
</form>
```

### Module 6: Deleting User Data

This module deletes a user from the database.

### Code:

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

    $sql = "DELETE FROM users WHERE id='$id'";
```

```

        if ($conn->query($sql) === TRUE) {
            echo "Record deleted successfully";
        } else {
            echo "Error deleting record: " . $conn->error;
        }
    }
?>
<form method="post" action="">
    User ID: <input type="text" name="id"><br>
    <input type="submit" value="Delete">
</form>

```

## Module 7: Search Users

This module searches for users based on username.

### Code:

```

<?php
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $name = $_POST['name'];

    $sql = "SELECT * FROM users WHERE name LIKE '%$name%'";
    $result = $conn->query($sql);

    if ($result->num_rows > 0) {
        while($row = $result->fetch_assoc()) {
            echo "id: " . $row["id"]. " - Name: " . $row["name"]. " - Email: " .
            $row["email"]. "<br>";
        }
    } else {
        echo "0 results";
    }
}
?>

```

```
<form method="post" action="">  
  Name: <input type="text" name="name"><br>  
  <input type="submit" value="Search">  
</form>
```