LAB-3

Create a user registration form having fields user name, email, phone, password and validate the form.

***username required**

***email required, proper format**

***phone optional, number format**

***password required, min 8 characters**

Background:

JavaScript (JS) is a high-level, interpreted programming language that's primarily used to create dynamic and interactive web pages. It's one of the core technologies of the World Wide Web, alongside HTML and CSS. JavaScript is a versatile and powerful language that plays a crucial role in modern web development. It can be used for both Client-side as well as Server-side developments. It is also known as a scripting language for web pages.

JavaScript provides facility to validate the form on the client-side so data processing will be faster than server-side validation. Most of the web developers prefer JavaScript form validation. Through JavaScript, we can validate name, password, email, date, mobile numbers and more fields.

Source Code:

HTML:

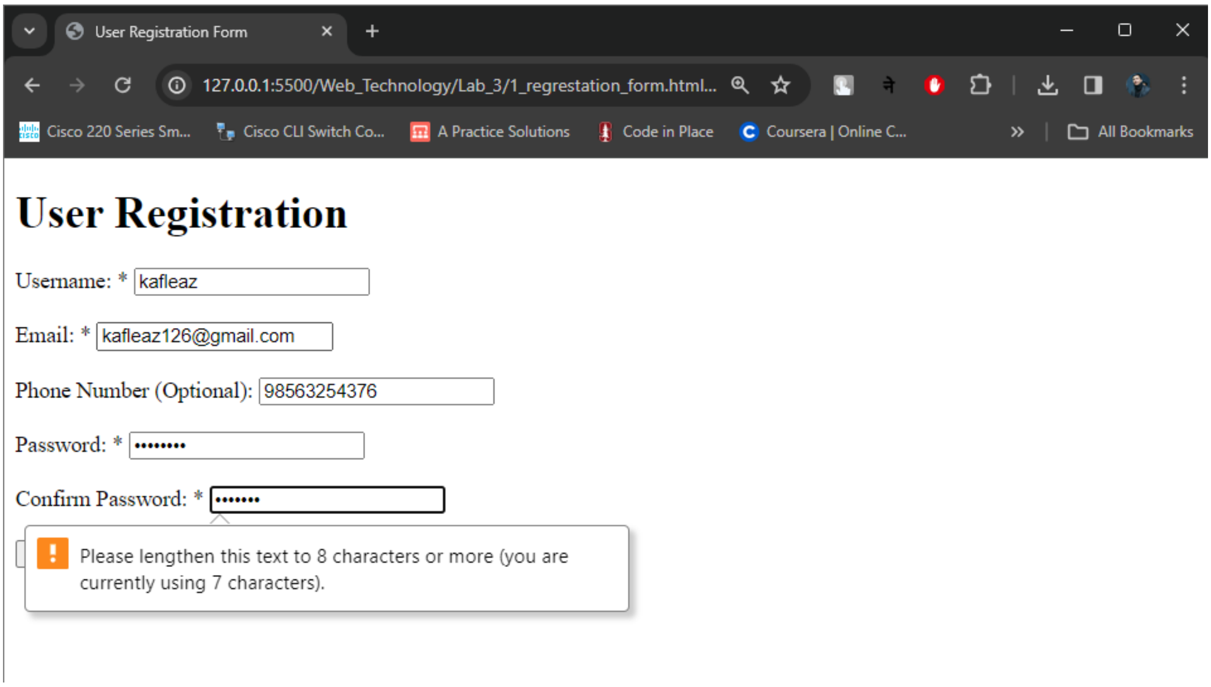
```
<!DOCTYPE html>
<html>
<head>
<title>User Registration Form</title>
<script src="1_reg_script.js"></script> </head>
<body>

<h1>User Registration</h1>

<form id="registrationForm" onsubmit="return validateForm()">
  <label for="username">Username: *</label>
  <input type="text" id="username" name="username" required>
  <br><br>

  <label for="email">Email: *</label>
  <input type="email" id="email" name="email" required>
  <br><br>
  <label for="phone">Phone Number (Optional):</label>
  <input type="tel" id="phone" name="phone">
  <br><br>

  <label for="password">Password: *</label>
  <input type="password" id="password" name="password" required
minlength="8">
  <br><br>

  <label for="password_confirm">Confirm Password: *</label>
  <input type="password" id="password_confirm" name="password_confirm"
required minlength="8">
  <br><br>

  <button type="submit">Create Account</button>
</form>

</body>
</html>
```

Javascript:

```
function validateForm() {
    const username = document.getElementById("username").value;
    const email = document.getElementById("email").value;
    const password = document.getElementById("password").value;
    const confirmPassword =
document.getElementById("password_confirm").value;

    if (username === "" || email === "" || password === "") {
      alert("Please fill in all required fields.");
      return false; // Prevent form submission
    }

    if (!isValidEmail(email)) {
      alert("Please enter a valid email address.");
      return false;
    }
    if (password.length < 8) {
      alert("Password must be at least 8 characters long.");
      return false;
    }

    if (password !== confirmPassword) {
      alert("Passwords do not match.");
      return false;
    }
    return true; // Allow form submission if validation passes
  }
```

```
function isValidEmail(email) {
  // Regular expression for basic email validation
  const emailRegex = /^[^\s@]+@[^\s@]+\.[^\s@]+$/;
  return emailRegex.test(email);
}
```

Output:



User Registration

Username: * kafleaz

Email: * kafleaz126@gmail.com

Phone Number (Optional): 98563254376

Password: * ••••••••

Confirm Password: * •••••••

Please lengthen this text to 8 characters or more (you are currently using 7 characters).

LAB-4

Develop a simple website that checks the validity of the user login. Assume that the data is already in the database. Use Client Site script to check the empty values during login.

Background:

Before submitting data to the server, it is important to ensure all required form controls are filled out, in the correct format. This is called client-side form validation, and helps ensure data submitted matches the requirements set forth in the various form controls. When you enter data, the browser and/or the web server will check to see that the data is in the correct format and within the constraints set by the application. Validation done in the browser is called client-side validation.

Source Code:

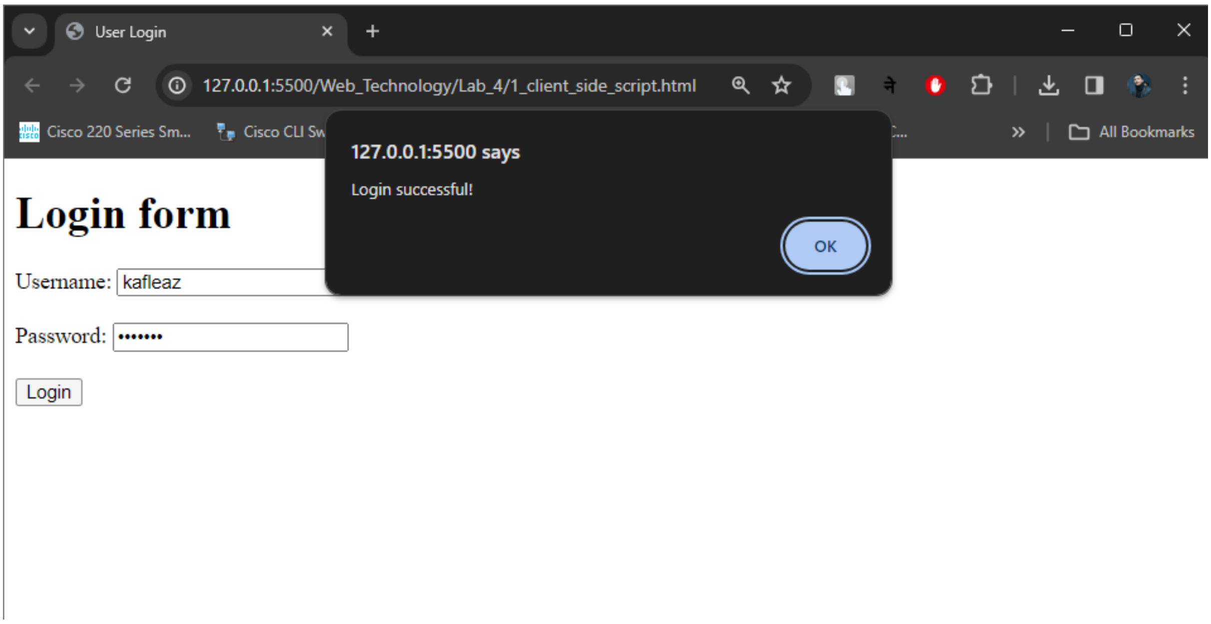
HTML:

```
<!DOCTYPE html>
<html>
<head>
<title>User Login</title>
<script src="1_script.js"></script>
</head>
<body>

<h1>Login form</h1>

<form id="loginForm" onsubmit="return validateForm()">
  <label for="username">Username:</label>
  <input type="text" id="username" name="username" required>
  <br><br>

  <label for="password">Password:</label>
  <input type="password" id="password" name="password" required>
  <br><br>

  <button type="submit">Login</button>
</form>

<div id="error-message"></div>

</body>
</html>
```

Javascript:

```
function validateForm() {
    const username = document.getElementById("username").value;
    const password = document.getElementById("password").value;

    if (username === "" || password === "") {
      document.getElementById("error-message").textContent = "Please
fill in all fields.";
      return false;
    }

    if (username === "kafleaz" && password === "cabtech") {
      alert("Login successful!");
      return false; // Prevent form submission
    } else {

      document.getElementById("error-message").textContent = "Invalid
username or password.";
      return false;
    }
  }
```

Output:



User Login
127.0.0.1:5500/Web_Technology/Lab_4/1_client_side_script.html
Cisco 220 Series Sm...
Cisco CLI Sw
All Bookmarks

127.0.0.1:5500 says

Login successful!

Login form

Username: kafleaz

Password: •••••••

LAB-5

a. Create a database Student and create a Table (Table 1) in MySQL having following:

Column Name	ID	Firstname	Lastname	Gender	Semester	Symbol no.	Batch
Datatype	Int	Varchar	Varchar	Boolean (Male/Female)	int	varchar	int

Background:

Database is a collection of inter-related data which helps in efficient retrieval, insertion and deletion of data from database and organizes the data in the form of tables, views, schemas, reports etc. The basic steps to create MySQL database using PHP are:

- Establish a connection to MySQL server from your PHP script
- If the connection is successful, write a SQL query to create a database and store it in a string variable.
- Execute the query.

XAMPP stands for cross-platform, Apache, MySQL, PHP, and Perl. It is among the simple light-weight local servers for website development.

Requirements: XAMPP web server procedure:

- Start XAMPP server by starting Apache and MySQL.
- Write PHP script for connecting to XAMPP.
- Run it in the local browser.
- Database is successfully created which is based on the PHP code.

In PHP, we can connect to the database using XAMPP web server by using the following path:

✓ "localhost/phpmyadmin"

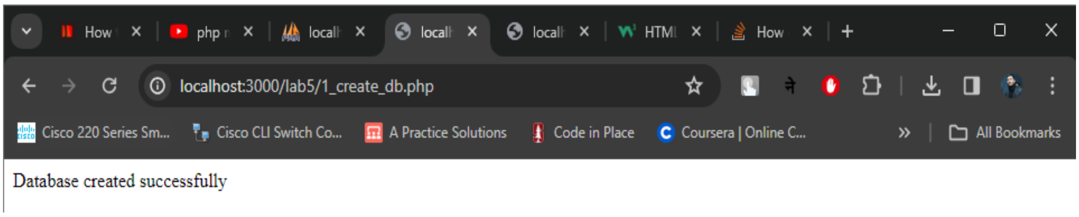
Source Code PHP:

Database Creation:

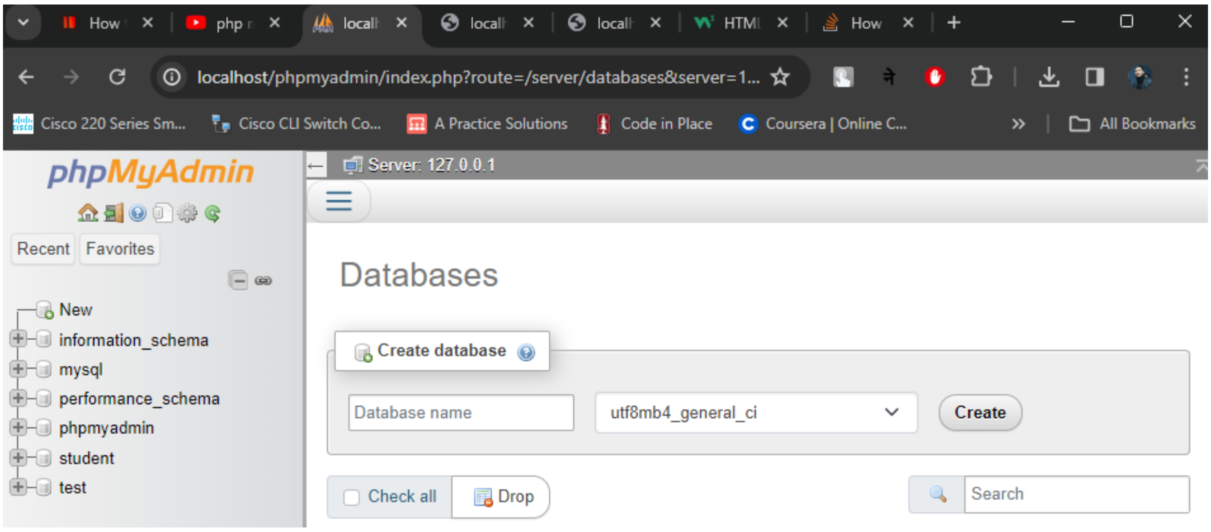
```
<?php
$servername = "localhost";
$username = "root";
$password = "";
$conn = mysqli_connect($servername, $username, $password);
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}

$sql = "CREATE DATABASE student";
```

```
if (mysqli_query($conn, $sql)) {
    echo "Database created successfully";
} else {
    echo "Error creating database: " . mysqli_error($conn);
}
mysqli_close($conn);
?>
```

Output:


localhost:3000/lab5/1_create_db.php

```
Database created successfully
```


localhost/phpmyadmin/index.php?route=/server/databases&server=1...

Server: 127.0.0.1

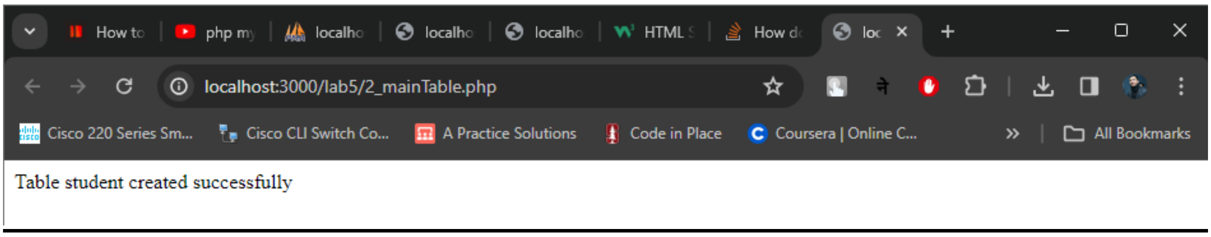
Databases

Source Code PHP:

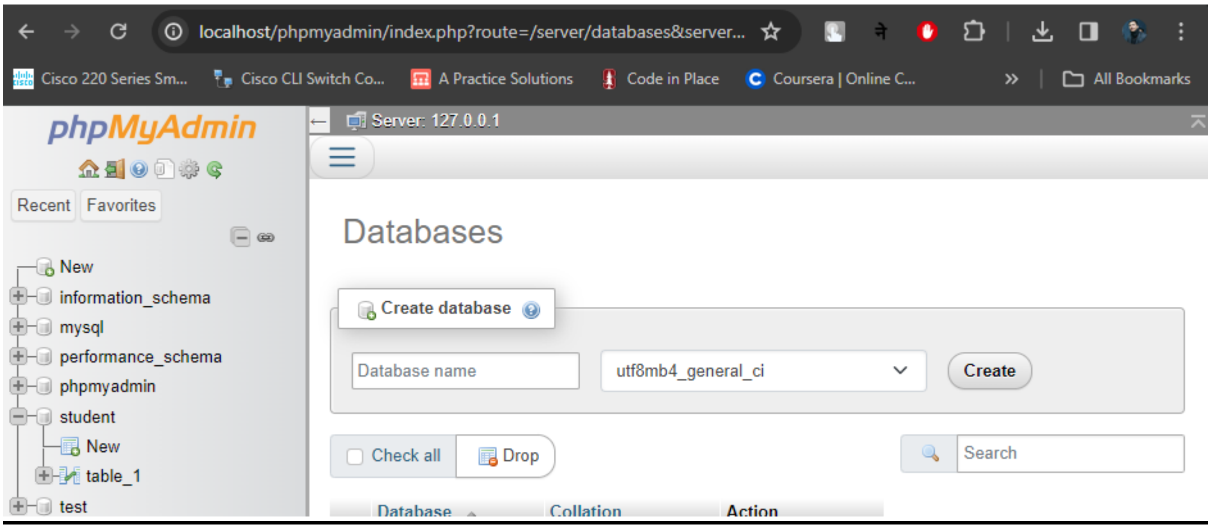
Table Creation:

```
<?php
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "student";
$conn = mysqli_connect($servername, $username, $password, $dbname);
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}
$sql = "CREATE TABLE table_1 (
ID INT(6) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
Firstname VARCHAR(30) NOT NULL,
Lastname VARCHAR(30) NOT NULL,
Gender BOOLEAN NOT NULL,
Semester INT(2) UNSIGNED NOT NULL,
SymbolNumber VARCHAR(30) NOT NULL,
Batch INT(2) UNSIGNED NOT NULL
)";
if (mysqli_query($conn, $sql)) {
    echo "Table student created successfully";
} else {
    echo "Error creating table: ". mysqli_error($conn);
}
mysqli_close($conn);
?>
```

Output:



```
Table student created successfully
```



- New
- information_schema
- mysql
- performance_schema
- phpmyadmin
- student
  - New
  - table_1
- test

Databases

Database name | utf8mb4_general_ci

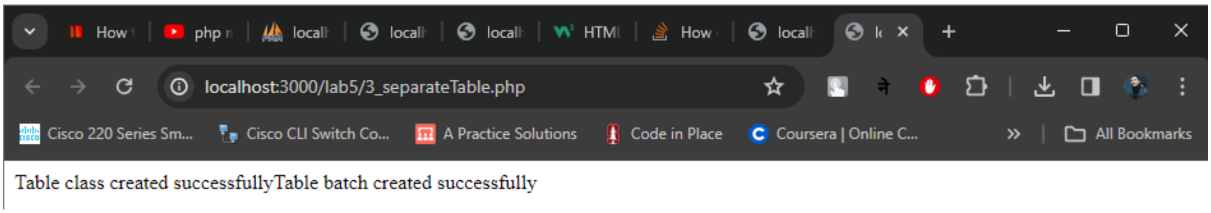
Database | Collation | Action

b. Create Separate Tables for Class and Batch containing ID,name.

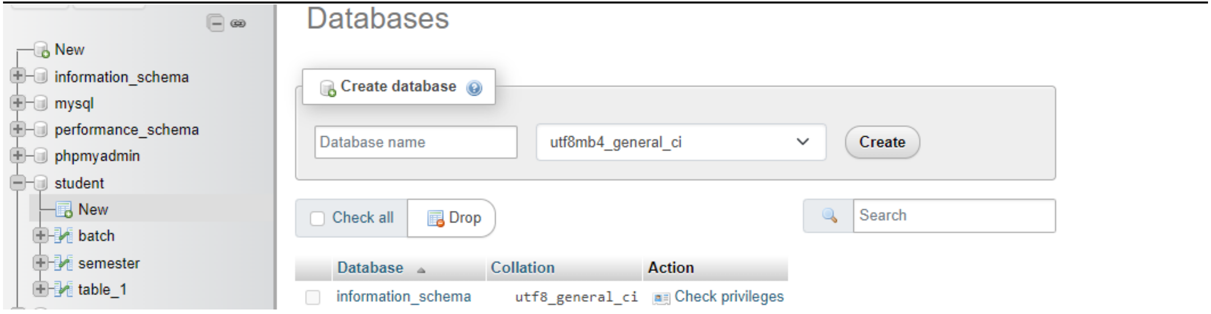
Source Code PHP:

```
<?php
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "student";
$conn = mysqli_connect($servername, $username, $password, $dbname);
if (!$conn) {
    die("Connection failed: ".mysqli_connect_error());
}
// sql to create table
$sql = "CREATE TABLE semester (
    ID INT(6) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
    Name VARCHAR(30) NOT NULL
)";
if (mysqli_query($conn, $sql)) {
    echo "Table class created successfully";
} else {
    echo "Error creating table: ".mysqli_error($conn);
}
$sql = "CREATE TABLE batch (
    ID INT(6) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
    Name VARCHAR(30) NOT NULL
)";
if (mysqli_query($conn, $sql)) {
    echo "Table batch created successfully";
} else {
    echo "Error creating table: ".mysqli_error($conn);
}
mysqli_close($conn);
?>
```

Output:



```
Table class created successfullyTable batch created successfully
```



c. Create a Simple form (Form 1) in PHP having FirstName, Lastname, Gender (Radio Button), Class (dropdown), Roll Number and Batch (dropdown)

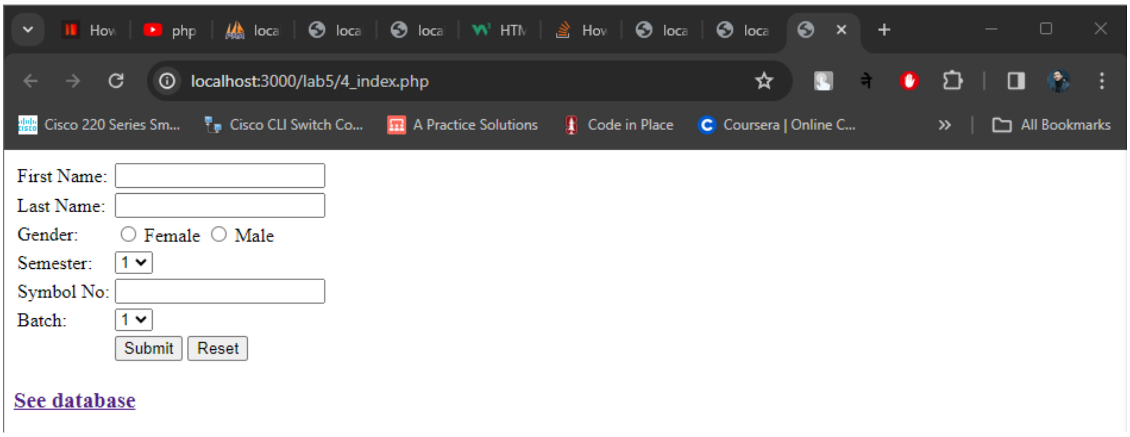
d. Use Client Side required validation in the Form 1.

Source Code:

Form Creation and Validation:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <title></title>
</head>
<body>
    <form  method="post" action="5_insert.php" onsubmit="return
validateForm()">
        <table sc>
            <tr>
                <td><label for="fname">First Name:</label></td>
                <td><input type="text" id="fname" name="firstname"
required></td>
            </tr>
            <tr>
                <td><label for="lname">Last Name:</label></td>
                <td><input type="text" id="lname" name="lastname"
required></td>
            </tr>
            <tr>
                <td><label>Gender:</label></td>
                <td>
                    <input type="radio" id="female" value="0"
name="gender" required> Female
                    <input type="radio" id="male" value="1"
name="gender"> Male
                </td>
            </tr>
            <tr>
                <td><label for="semester">Semester:</label></td>
                <td>
                    <select name="semester" id="semester">
                        <option value="1">1</option>
                        <option value="2">2</option>
                        <option value="3">3</option>
                        <option value="4">4</option>
                        <option value="5">5</option>
                        <option value="6">6</option>
                        <option value="7">7</option>
                        <option value="8">8</option>
                    </select>
                </td>
            </tr>
            <tr>
                <td><label for="symbol">Symbol No:</label></td>
                <td><input type="text" id="symbol" name="symbol"
required></td>
            </tr>

            <tr>
                <td><label for="batch">Batch:</label></td>
                <td>
                    <select name="batch" id="batch">
                        <option value="1">1</option>
                        <option value="2">2</option>
                        <option value="3">3</option>
                        <option value="4">4</option>
                    </select>
                </td>
            </tr>

            <tr>
                <td></td>
                <td>
                    <input type="submit" value="Submit">
                    <input type="reset">
                </td>
            </tr>
        </table>
    </form>
    <script>
    function validateForm() {
        // Get values from the form
        const firstname = document.getElementById('fname').value;
        const lastname = document.getElementById('lname').value;
        const gender =
document.querySelector('input[name="gender"]:checked');
        const selectedSemester =
document.getElementById('semester').value;
        const symbolnumber = document.getElementById('symbol').value;
        const selectedBatch = document.getElementById('batch').value;

        // Detailed validation
        if (firstname === "") {
            alert("Please enter your First Name");
            return false;
        }
        if (lastname === "") {
            alert("Please enter your Last Name");
            return false;
        }
        if (!gender) {
            alert("Please select your Gender");
            return false;
        }
        if (selectedSemester === "") {
            alert("Please select your Class");
            return false;
        }
        if (symbolnumber === "") {
            alert("Please enter your Roll Number");
            return false;
        }
        if (selectedBatch === "") {
            alert("Please select your Batch");
            return false;
        }
        return true;
    }
    </script>
    <a href="5_list.php"><h3>See database</h3></a>
</body>
</html>
```

Output:



First Name:	
Last Name:	
Gender:	○ Female ○ Male
Semester:	1
Symbol No:	
Batch:	1
	Submit Reset

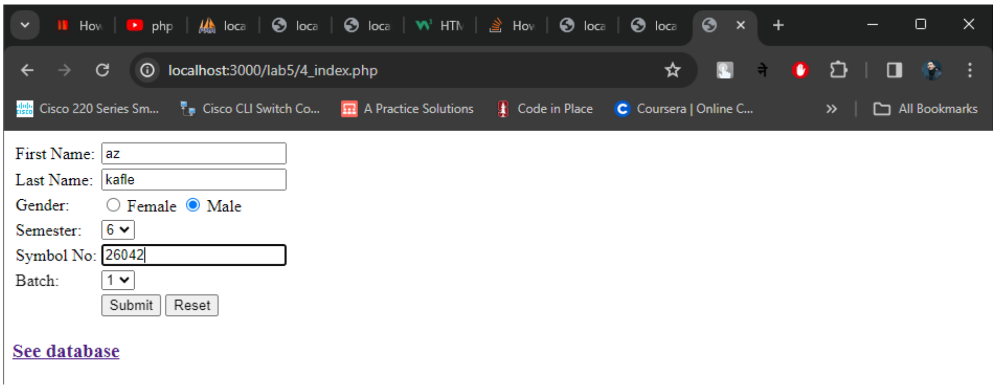
See database

d. Connect Database and Table 1 and insert the data filled in Form 1.

Source Code:

```
<?php
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "student";
$conn = mysqli_connect($servername, $username, $password, $dbname);

if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}

$firstname = $_REQUEST['firstname'];
$lastname = $_REQUEST['lastname'];
$gender = $_REQUEST['gender'];
$semester = $_REQUEST['semester'];
$symbol = $_REQUEST['symbol'];
$batch = $_REQUEST['batch'];

$sql = "INSERT INTO table_1 (Firstname, Lastname, Gender, Semester, SymbolNumber, Batch) VALUES ('$firstname', '$lastname', '$gender', '$semester', '$symbol', '$batch')";

if (mysqli_query($conn, $sql)) {
    header('Location: 4_index.php');
} else {
    echo "ERROR: Hush! Sorry $sql." . mysqli_error($conn);
}

mysqli_close($conn);
?>
```

Output:



localhost:3000/lab5/4_index.php

First Name: az
Last Name: kafle
Gender: ○ Female ● Male
Semester: 6
Symbol No: 26042
Batch: 1
Submit Reset

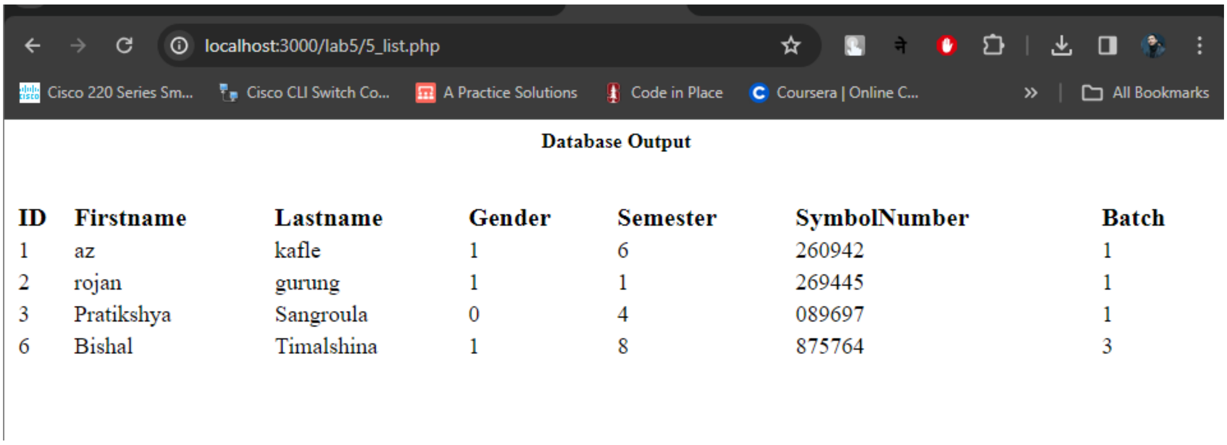
See database

e. Create a list php page which displays the data saved in Table 1.

Source Code:

```
<?php
$username = "root";
$password = "";
$database = "student";
$mysqli = new mysqli("localhost", $username, $password, $database);
$query = "SELECT * FROM table_1";
echo "<b> <center>Database Output</center> </b> <br> <br>";
if ($result = $mysqli->query($query)) {
    echo '<table style="width:100%">';
    echo '<tr style="font-size: 20px; font-weight:bold;">';
    echo '<td>ID</td>';
    echo '<td>Firstname</td>';
    echo '<td>Lastname</td>';
    echo '<td>Gender</td>';
    echo '<td>Semester</td>';
    echo '<td>SymbolNumber</td>';
    echo '<td>Batch</td>';
    echo '</tr>';
    while ($row = $result->fetch_assoc()) {
        $id = $row["ID"];
        $firstname = $row["Firstname"];
        $lastname = $row["Lastname"];
        $gender = $row["Gender"];
        $semester = $row["Semester"];
        $symbol = $row["SymbolNumber"];
        $batch = $row["Batch"];
        echo '<tr style="font-size:18px">';
        echo '<td>' . $id . '</td>';
        echo '<td>' . $firstname . '</td>';
        echo '<td>' . $lastname . '</td>';
        echo '<td>' . $gender . '</td>';
        echo '<td>' . $semester. '</td>';
        echo '<td>' . $symbol. '</td>';
        echo '<td>' . $batch . '</td>';
        echo '</tr>';
    }
    echo '</table>';
    $result->free();
}
?>
```

Output:



Database Output

ID	Firstname	Lastname	Gender	Semester	SymbolNumber	Batch
1	az	kafle	1	6	260942	1
2	rojan	gurung	1	1	269445	1
3	Pratikshya	Sangroula	0	4	089697	1
6	Bishal	Timalshina	1	8	875764	3