**Name: Om Patel**

**Panel: F**

**Batch: F1**

**Roll\_no: 16**

**Faculty: Prof. Vitthal Gutte**

**Subject: Full Stack Development**

Title: Assignment-4

**Problem Statements:**

PHP CRUD Operations

1.Student can create a PHP form or use existing/ implemented HTML form for Student’s Registration System with the fields mentioned: First name, Last name, Roll No/ID, Password, Confirm Password, contact number and perform following operations

1.Insert student details -First name, Last name, Roll No/ID, Password, Confirm Password, Contact number

2.Delete the Student records based on Roll no/ID

3.Update the Student details based on Roll no/ID- Example students can update their contact details based on searching the record with Roll no.

4.Display the Updated student details or View the Students record in tabular format.

Apply Form Validation on the necessary fields using PHP/JavaScript

**Aim:** Write server-side script in PHP to perform form validation and create database application using PHP and MySQL to perform insert, update, delete and search operations.

**Objectives:**

1. To understand Server-side Scripting.
2. To learn database connectivity using PHP-MySQL.
3. To perform insert, update, delete and search operations on database.

**Theory:**

1. PHP Architecture:

- PHP is a server-side scripting language embedded in HTML. When a user requests a PHP page, the web server processes the PHP code and sends the output (usually HTML) to the user's browser.

2. Steps for Database Connectivity in PHP:

- Establish a connection to the MySQL database using `mysqli\_connect()`.

- Select a specific database using `mysqli\_select\_db()`.

- Execute SQL queries to perform various database operations.

- Use `mysqli\_query()` to execute SQL statements.

FAQ:

1. What are the advantages of Server-side Scripting?

- Dynamic Content: Server-side scripting allows the generation of dynamic content based on user input or other parameters.

- Database Interaction: It enables interaction with databases, allowing storage, retrieval, and manipulation of data.

- Customization: Different content can be served to different users based on their interactions and input.

- Security: Sensitive operations and data can be handled securely on the server without exposing the logic or data to the client's browser.

2. What is XAMPP and phpMyAdmin?

- XAMPP: XAMPP is a free and open-source cross-platform web server solution stack package developed by Apache Friends. It includes Apache HTTP Server, MariaDB (a MySQL fork), and interpreters for scripts written in PHP and Perl.

- phpMyAdmin: phpMyAdmin is a free and open-source administration tool for MySQL and MariaDB. It allows users to manage databases, tables, columns, relations, indexes, users, permissions, etc., via a web interface.

3. What are the two ways to connect to a database in PHP?

- MySQL Extension: MySQL (MySQL Improved) is a newer and more feature-rich extension for interacting with MySQL databases. It provides both an object-oriented and a procedural API.

- PDO (PHP Data Objects): PDO is a database access layer providing a uniform method of access to multiple databases. It is a higher-level, more flexible abstraction over the MySQL extension.

**CODE**

**ODE**

1. **Index.html**
2. <!DOCTYPE html>
3. <html lang="en">
4. <head>
5. <meta charset="UTF-8" />
6. <meta name="viewport" content="width=device-width, initial-scale=1.0" />
7. <title>FSD-Assign\_1</title>
8. <link rel="stylesheet" href="styles.css" />
9. </head>
10. <body>
11. <div class="container">
12. <form
13. action="http://localhost/FSD-lab/welcome.php"
14. method="post"
15. onchange="valform()"
16. onsubmit="sub()"
17. id="form"
18. >
19. <h2>Form Validation FSD-3</h2>
20. <div class="top">
21. <div class="form-row">
22. <label for="name">Enter Name:</label>
23. <input
24. type="text"
25. placeholder="Name"
26. name="name"
27. id="name"
28. required
29. />
30. </div>
31. <div class="form-row">
32. <label for="school">Enter School:</label>
33. <input
34. type="text"
35. placeholder="School Name"
36. name="school"
37. id="school"
38. required
39. />
40. </div>
41. <div class="form-row">
42. <label for="address">Enter Address: </label>
43. <input
44. type="text"
45. name="address"
46. placeholder="Enter Address"
47. id="address"
48. required
49. />
50. </div>
51. <div class="form-row">
52. <label for="password">Enter Password: </label>
53. <input
54. type="text"
55. name="password"
56. placeholder="Enter password"
57. id="password"
58. onchange="validate1()"
59. />
60. </div>
61. <div class="form-row">
62. <label for="cpassword">Confirm Password: </label>
63. <input
64. type="password"
65. name="cpassword"
66. placeholder="Confirm password"
67. id="cpassword"
68. onchange="validate5()"
69. />
70. </div>
71. <div class="form-row">
72. <label for="email">Email ID:</label>
73. <input
74. type="email"
75. placeholder="Enter Email"
76. name="email"
77. id="email"
78. onchange="validate3()"
79. required
80. />
81. </div>
82. <div class="form-row">
83. <label for="mobile">Mobile no.:</label>
84. <input
85. type="tel"
86. placeholder="Enter Mobile"
87. name="mobile"
88. id="mobile"
89. onchange="validate2()"
90. required
91. />
92. </div>
93. <div class="form-row">
94. <label for="state">State: </label>
95. <select name="state" id="state" onchange="statechange()">
96. <option value="None">None</option>
97. <option value="Karnataka">Karnataka</option>
98. <option value="Gujarat">Gujarat</option>
99. <option value="Maharashtra">Maharashtra</option>
100. </select>
101. </div>
102. <div class="form-row">
103. <label for="city">City:</label>
104. <select name="city" id="city" required></select>
105. </div>
106. <div class="form-row">
107. <label for="Country">Country:</label>
108. <select name="Country" id="Country">
109. <option value="India">India</option>
110. </select>
111. </div>
112. <div class="form-row">
113. <label for="PinCode">PinCode:</label>
114. <input
115. type="number"
116. placeholder="PinCode"
117. name="PinCode"
118. id="PinCode"
119. onchange="validate4()"
120. required
121. />
122. </div>
123. <div class="sub">
124. <button type="submit" id="subb" disabled>Submit</button>
125. </div>
126. </div>
127. </form>
128. </div>
129. <script src="app.js"></script>
130. </body>
131. </html>

2. syles.css

body {

  font-size: larger;

}

.top {

  display: flex;

  flex-direction: column;

}

.form-row {

  display: flex;

  flex-direction: row;

  margin-top: 10px;

  margin-bottom: 10px;

  padding: 5px;

}

.sub {

  display: flex;

  justify-content: center;

  align-items: center;

}

button {

  padding: 5px;

  cursor: pointer;

  font-size: large;

}

input,

select {

  margin-left: 5px;

  border-radius: 3px;

  font-size: large;

}

input:hover {

  border: 1.5px solid black;

}

select {

  cursor: pointer;

}

.valid {

  border: 1px solid greenyellow;

}

.error {

  border: 1px solid red;

}

.container {

  display: flex;

  justify-content: center;

  align-items: center;

  margin: auto;

  padding: 5px;

}

form {

  padding: 20px;

  border: 2px solid black;

  border-radius: 10px;

  height: auto;

  background: #f2efef;

}

@media screen and (max-width: 480px) {

  .form-row {

    flex-wrap: wrap;

    flex-direction: column;

  }

}

3. app.js

let globvar = 0;

const citiesbystate = {

  Maharashtra: [

    "Mumbai",

    "Pune",

    "Nagpur",

    "Nashik",

    "Solapur",

    "Amravati",

    "Aurangabad",

    "Sangli",

    "Satara",

    "Kolhapur",

  ],

  Karnataka: [

    "Banglore",

    "Mysore",

    "Hubli",

    "Belagaum",

    "Mangalore",

    "Gulbarga",

    "Shimogga",

    "Bellary",

    "Tumkur",

    "Davanagere",

  ],

  Gujarat: [

    "Ahmedabad",

    "Surat",

    "Vadodara",

    "Rajkot",

    "Bhavnagar",

    "Jamnagar",

    "Junagadh",

    "Gandhinagar",

    "Ananad",

    "Bharuch",

  ],

};

function statechange() {

  var city = document.getElementById("city");

  city.innerHTML = "";

  var selectedState = document.getElementById("state").value;

  var states = citiesbystate[selectedState];

  for (let i = 0; i < states.length; i++) {

    var option = document.createElement("option");

    option.text = states[i];

    city.add(option);

  }

}

let password = document.getElementById("password");

function validate1() {

  let cnt = 0;

  // lowercase letters

  let lowerCaseLetters = /[a-z]/g;

  if (password.value.match(lowerCaseLetters)) {

    cnt++;

  }

  // capital letters

  let upperCaseLetters = /[A-Z]/g;

  if (password.value.match(upperCaseLetters)) {

    cnt++;

  }

  // numbers

  let numbers = /[0-9]/g;

  if (password.value.match(numbers)) {

    cnt++;

  }

  // length

  if (password.value.length >= 8) {

    cnt++;

  }

  // Provide incremental feedback

  if (cnt === 0) {

    // No conditions met

    password.classList.remove("valid", "error");

  } else if (cnt < 4) {

    // Some conditions met

    password.classList.remove("valid");

    password.classList.add("error");

    console.log("INcorrect!!");

  } else {

    // All conditions met

    password.classList.remove("error");

    password.classList.add("valid");

    console.log("correct password!!");

    globvar++;

  }

}

let mobile = document.getElementById("mobile");

function validate2() {

  let cnt = 0;

  if (mobile.value.length === 10) {

    cnt++;

  }

  let numbers = /^\d{10}$/;

  if (mobile.value.match(numbers)) {

    cnt++;

  }

  if (cnt === 0) {

    mobile.classList.remove("valid", "error");

  } else if (cnt < 2) {

    mobile.classList.remove("valid");

    mobile.classList.add("error");

    console.log("INcorrect mobile!!");

  } else {

    mobile.classList.remove("error");

    mobile.classList.add("valid");

    console.log("correct mobile!!");

    globvar++;

  }

}

let email = document.getElementById("email");

const emailPattern = /^\w+([\.-]?\w+)\*@\w+([\.-]?\w+)\*(\.\w{2,3})+$/;

function validate3() {

  if (email.value.match(emailPattern)) {

    email.classList.remove("error");

    email.classList.add("valid");

    console.log("correct email!!");

    globvar++;

  } else {

    email.classList.remove("valid");

    email.classList.add("error");

    console.log("Invalid email address.");

  }

}

function validate4() {

  let pincode = document.getElementById("PinCode");

  if (pincode.value.length !== 6) {

    pincode.classList.remove("valid");

    pincode.classList.add("error");

    alert("Please enter a valid Pin Code");

  } else {

    email.classList.remove("error");

    email.classList.add("valid");

    console.log("Correct pincode!!!");

    globvar++;

  }

}

function validate5() {

  p1 = document.getElementById("password");

  p2 = document.getElementById("cpassword");

  if (p1.value === p2.value) {

    globvar++;

    p2.classList.add("valid");

  } else {

    p2.classList.remove("valid");

    p2.classList.add("error");

    alert("Passwords do not match");

  }

}

function sub() {

  alert("Ho gya submit!");

}

form1 = document.getElementById("form");

submitbtn = document.getElementById("subb");

function valform() {

  if (globvar === 5) {

    submitbtn.disabled = false;

  } else {

    submitbtn.disabled = true;

  }

}

4. welcome.php

<?php

$submit=false;

if($\_SERVER['REQUEST\_METHOD']=="POST"){

    $server="localhost";

    $username="root";

    $password="";

    $con=mysqli\_connect($server,$username,$password);

    if(!$con){

        die("Connection failed due to". mysqli\_connect\_error());

    }

    $sql1="USE `fsd`;";

    $name=$\_POST['name'];

    $school=$\_POST['school'];

    $address=$\_POST['address'];

    $pword=$\_POST['password'];

    $email=$\_POST['email'];

    $mobile=$\_POST['mobile'];

    $city=$\_POST['city'];

    $state=$\_POST['state'];

    $Country=$\_POST['Country'];

    $PinCode=$\_POST['PinCode'];

        $sql2="INSERT INTO `fsd`.`student`(`Name`,`School`,`Address`,`Email`,`Mobile`,`Password`,`State`,`City`,`Country`,`PinCode`)

        VALUES ('$name','$school','$address','$email','$mobile','$pword','$state','$city','$Country','$PinCode');";

    $con->query($sql1);

    $sql3="SELECT `Name` from `student`";

    $val=$con->query($sql3);

    if($con->query($sql2)==true){

        $submit=true;

    }

    else{

        echo "Error!: $sql2 <br> $con->error";

    }

    $con->close();

}

?>

      </body>

</html>

OUTPUT





























