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**Panel: F**

**Batch: F1**

**Roll\_no: 16**

**Faculty: Prof. Vitthal Gutte**

**Subject: Full Stack Development**

Title: Assignment-3

**Problem Statement:**

Write a program to design Student registration form by using HTML, CSS having following fields: Username, Email, Phone number, Password, Confirm Password and write external javascript code to achieve following validations

* Fields should not be empty. If spaces are entered those should be considered empty
* Phone number must accept only numeric values and it should be 10 digits
* Password length must be at least 7 and it should contain at least one capital letter, one digit and one special character from the set (&, $, #@)
* Value entered in password field and confirm password fields must match

Email address must contain @ sign and a., there should be few letters before the @ sign, there should be three letters between @ sign and a. There must be 3 or 2 letters after the.   (hint: Use regular expression)

Write a client-side script with JavaScript to access and manipulate Document Object Model (DOM) objects in an HTML web page. Develop a dynamic web page using javascript and DOM. Make use of the following for accessing elements

**Theory:**

**Different types of form validations:**

Form validations are used to ensure that data entered by users in a web form meets certain criteria. Some common types of form validations include:

Mandatory field validation: Ensuring that required fields are filled out.

Phone number validation: Checking if the phone number format is correct.

Email address validation: Verifying if the email address follows a valid format.

Zip code validation: Ensuring that the zip code is in the correct format.

**HTML Document Object Model (DOM):**

The DOM is a programming interface for web documents. It represents the page so that programs can change the document structure, style, and content dynamically. JavaScript can be used to access and manipulate DOM objects.

**What is jQuery? Write various jQuery Selectors:**

jQuery is a fast, small, and feature-rich JavaScript library. It simplifies many tasks, such as DOM manipulation, event handling, and Ajax interactions.

jQuery Selectors are patterns that are used to select elements from the HTML document. Some common jQuery selectors include:

$("element"): Selects all elements with the specified element name.

$(".class"): Selects all elements with the specified class.

$("#id"): Selects the element with the specified id.

$("selector1, selector2"): Selects elements that match either selector1 or selector2.

FAQ:

**1. Write 3 reasons why Form validations are important:**

Data integrity: Form validations ensure that the data submitted is accurate and meets the required criteria, reducing the chances of erroneous or incomplete information.

User experience: Proper validation provides feedback to users, making it clear what information is required and helping prevent mistakes.

Security: Form validations can help prevent malicious input, such as SQL injection or cross-site scripting (XSS) attacks.

**2.** **Give an example of how to modify an attribute value using DOM:**

You can modify an attribute value using DOM like this:

var element = document.getElementById("myElement");

element.setAttribute("src", "new\_image.jpg");

**3. What is jQuery Ajax?**

jQuery Ajax is a set of methods and functions in jQuery that simplifies the process of making asynchronous HTTP requests to a server and handling the responses. It allows you to load data from a server without having to refresh the entire web page, making web applications more interactive and responsive.

**CODE**

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>

**OUTPUTS**















