**Week 4**

**Aim:**

To perform client-side data validations using javascript for experiments 1,2.

**Description:**

* 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.

required: Specifies whether a form field needs to be filled in before the form can be submitted.

pattern: Specifies a regular expression that defines a pattern the entered data needs to follow.

* **Regular expressions** are patterns used to match character combinations in strings. In JavaScript, regular expressions are also objects.

**Pattern:** /pattern/modifiers;

* + - A regular expression is a sequence of characters that forms a search **pattern**.
    - **modifiers** can be used to perform case-insensitive more global searches.
    - **Brackets** are used to find a range of characters.
  + The exec() method is a RegExp expression method.

It searches a string for a specified pattern and returns the found text as an object.

* + The test() method is a RegExp expression method.

It searches a string for a pattern, and returns true or false, depending on the result.

**Source Code:**

login.html:

<!DOCTYPE html>

<html lang="en">

    <head>

        <meta charset="UTF-8">

        <meta name="viewport" content="width=device-width, initial-scale=1.0">

        <title>login</title>

        <link rel="stylesheet" href="./styles.css">

    </head>

    <body>

        <div class="message-container">

            <h3 class="message-text">message</h3>

            <button class="cancle-btn">X</button>

        </div>

        <form  id="form-login" onsubmit="return validateLogin()" name="loginForm" action="./home.html">

            <h2>login</h2>

            <label>

                <p>username: </p>

                <input type="text" placeholder="enter user name" class="text-input" name="username" required>

            </label>

            <br>

            <label>

                <p>password: </p>

                <input type="password" placeholder="enter password" class="text-input" name="password" required>

            </label>

            <br>

            <button type="submit" class="submit-btn">login</button>

            <br>

            <a href="#">forget password?</a>

            <br>

            <a href="./registration.html" target="pages">does not have account?</a>

        </form>

        <script src="./index.js"></script>

    </body>

</html>

registration.html:

<!DOCTYPE html>

<html lang="en">

    <head>

        <meta charset="UTF--8">

        <title>registration</title>

        <link rel="stylesheet" href="./styles.css">

    </head>

    <body>

        <div class="message-container">

            <h3 class="message-text">message</h3>

            <button class="cancle-btn">X</button>

        </div>

        <form style="padding: 20px 80px; margin-bottom: 7%;" name = "registrationForm" id="registration-form" onsubmit=" return validateRegistration()" action="./login.html">

            <h2>registration</h2>

            <label>

                <p>username: </p>

                <input type="text" placeholder="enter user name" class="text-input" name="username" required>

            </label>

            <br>

            <label>

                <p>password: </p>

                <input type="password" placeholder="enter password" class="text-input" name="password" required>

            </label>

            <br>

            <label>

                <p>confirm password: </p>

                <input type="password" placeholder="enter the password again" class="text-input" name="cpassword" required>

            </label>

            <br>

            <label>

                <p>email-id: </p>

                <input type="email" placeholder="enter email" class="text-input" name="email" required>

            </label>

            <br>

            <label>

                <p>mobile number: </p>

                <input type="number" placeholder="enter mobile number" class="text-input" name="mobile">

            </label>

            <br>

            <label>

                <p>data of birth: </p>

                <input type="date" name="dob" required>

            </label>

            <br>

            <label>

                <p>gender: </p>

                <input type="radio" name="gender"><span>male</span>

                <input type="radio" name="gender"><span>female</span>

            </label>

            <br>

            <label>

                <p>address: </p>

                <textarea class="text-input" name="address"></textarea>

            </label>

            <br>

            <button type="submit" class="submit-btn">register</button>

        </form>

        <script src="./index.js"></script>

    </body>

</html>

Index.js:

const loginFormElement = document.getElementById("form-login");

const messageText = document.querySelector(".message-text");

const messageContainer = document.querySelector(".message-container");

const messageCancleBtn = document.querySelector(".cancle-btn");

const passwordRegEx = new RegExp("^[a-zA-Z0-9@\_]{8,}$");

const usernameRegEx = new RegExp("^[a-zA-Z][a-zA-Z0-9]{5,}$");

const passwordRgx = new RegExp("^(?=.\*[0-9])(?=.\*[a-z])(?=.\*[A-Z])(?=.\*[@\_])[a-zA-Z0-9@\_]{8,}$");

const emailRegEx = new RegExp("^[a-z0-9]{3,}@gvpce[.]ac[.]in$");

const mobileRegEx = new RegExp("^[6-9][0-9]{9}$");

function validateLogin() {

    const username = document.loginForm.username.value;

    const password = document.loginForm.password.value;

    messageContainer.style.visibility = "visible";

    if(username === "" || username.length < 6) {

        messageText.innerText = "Invalid username!! username must be aleast 6 characters.";

    } else if(password.length < 8) {

        messageText.innerText = "Invalid password!! password must be aleast 8 characters.";

    } else if(!passwordRegEx.test(password)) {

        messageText.innerText = "Invalid password!! password must contain only 0-9, a-z, A-Z, @ and \_";

    } else {

        messageText.innerText = "Submited successfully."

        return true;

    }

    return false;

}

messageCancleBtn.addEventListener("click", () => {

    messageContainer.style.visibility = "hidden";

})

function validateRegistration() {

    messageContainer.style.visibility = "visible";

    const form = document.registrationForm;

    const username = form.username.value;

    const password = form.password.value;

    const cpassword = form.cpassword.value;

    const email = form.email.value;

    const mobile = form.mobile.value;

    const dob = form.dob.value;

    if(!usernameRegEx.test(username)) {

        messageText.innerText = "Invalid username!! username must be aleast 6 characters.";

        return false;

    }

    if(!passwordRgx.test(password)) {

        messageText.innerText = "Invalid password!! password must contain atleast one 0-9, atleast one a-z, atleast one A-Z, atleast one @ and \_ and atleast of size 8";

        return false;

    }

    if(cpassword !== password) {

        messageText.innerText = "Confirm password and password must be same";

        return false;

    }

    if(!emailRegEx.test(email)) {

        messageText.innerHTML = "Invalid Email !!";

        return false;

    }

    if(!mobileRegEx.test(mobile)) {

        messageText.innerText = "Invalid mobile number !!";

        return false;

    }

    messageContainer.innerText = "Registered Successfully";

    return true;

}

A screen shot of a computer

Description automatically generated