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Exercise 9

Form Validation System – Documentation

Overview

The Form Validation System is designed to validate user inputs for email addresses and phone numbers. It provides real-time feedback by displaying error messages if the entered data is invalid.
The system enhances user experience by ensuring only correct information is submitted.

Objective

To validate form inputs (email and phone number) before submission.

To display appropriate error messages using JavaScript and Validator.js.

To improve form usability and data accuracy.

Technologies Used

HTML5 — Form structure

CSS3 — Styling and layout

JavaScript — Input validation logic

Validator.js — External JavaScript library for robust validation

Project Structure

`index.html` — Contains the form elements and loads required scripts and styles.

`style.css` — Styles the form layout and error messages.

`script.js` — JavaScript file handling validation logic.

`Validator.js` — External library included via CDN.

Features

Email validation: Ensures the email entered follows a standard email format.

Phone number validation: Checks if the input is a valid phone number.

Inline error messages: Displays specific error text immediately below invalid fields.

Responsive and clean form design.

How It Works

User inputs email and phone number into the form.

Upon clicking Submit:
- JavaScript checks:
  - If the email is in a valid format.
  - If the phone number is a valid mobile number.

If validation fails:
- Corresponding error messages are shown in red below each field.

If validation succeeds:
- Form values are logged to the console (demo purpose).

Code Snippets

HTML (**`index.html`**) `html`

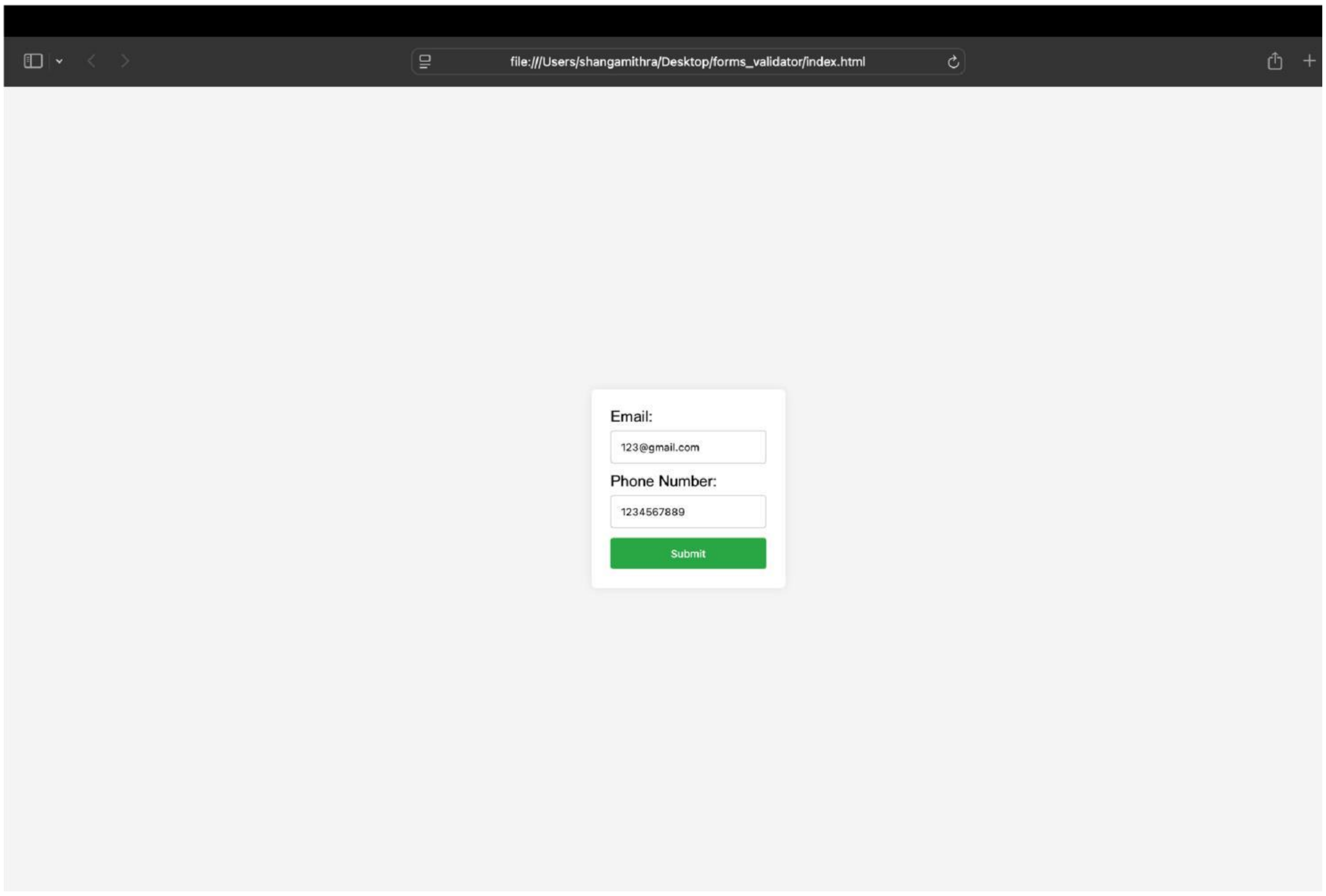
```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Form Validation</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
  <div class="container">
    <form id="myForm">
      <label for="email">Email:</label>
      <input type="email" id="email" name="email" required>
      <span id="emailError" class="error"></span>

      <label for="phone">Phone Number:</label>
      <input type="text" id="phone" name="phone" required>
      <span id="phoneError" class="error"></span>

      <button type="submit">Submit</button>
    </form>
  </div>

  <script src="https://cdnjs.cloudflare.com/ajax/libs/validator/13.6.0/validator.min.js"></script>
  <script src="script.js"></script>
</body>
</html>
```
CSS (**`style.css`**) css

```
body {   font-family: Arial, sans-
serif;   background-color: #f4f4f4;
display: flex;   justify-content:
center;   alignitems: center;   height:
100vh;   margin: 0; }

.container {   background-color: white;   padding:
20px;   border-radius: 5px;   box-shadow: 0 0 10px
rgba(0, 0, 0, 0.1);
}

form {   display: flex;
flex-direction: column;
}

label {   margin-
bottom: 5px;
}

input {   margin-bottom: 10px;
padding: 10px;   border: 1px
solid #ccc;   border-radius:
3px;
}

button {   padding: 10px;
background-color: #28a745;   color:
white;   border:
none;   border-radius: 3px;   cursor:
pointer;
}

button:hover {   background-
color: #218838; }

.error {   color:
red;   font-
size: 0.875em; }
```
JavaScript (**`script.js`**) javascript

```
document.getElementById('myForm').addEventListener('submit', function (e) {
e.preventDefault();

  let email = document.getElementById('email').value;   let
phone = document.getElementById('phone').value;   let
emailError = document.getElementById('emailError');   let
phoneError = document.getElementById('phoneError');
  // Clear previous error messages
emailError.textContent = '';   phoneError.textContent
= '';

  // Validate email   if (!validator.isEmail(email)) {
emailError.textContent = 'Please enter a valid email address.';
}

  // Validate phone number   if (!validator.isMobilePhone(phone,
'any')) {     phoneError.textContent = 'Please enter a valid phone
number.';   }

  // If no errors, log values   if (validator.isEmail(email) && validator.isMobilePhone(phone,
'any')) {     console.log('Email:', email);     console.log('Phone:', phone);
  }
});
```

Screenshots

Valid Input Form — shows fields ready to submit.



file:///Users/shangamithra/Desktop/forms_validator/index.html

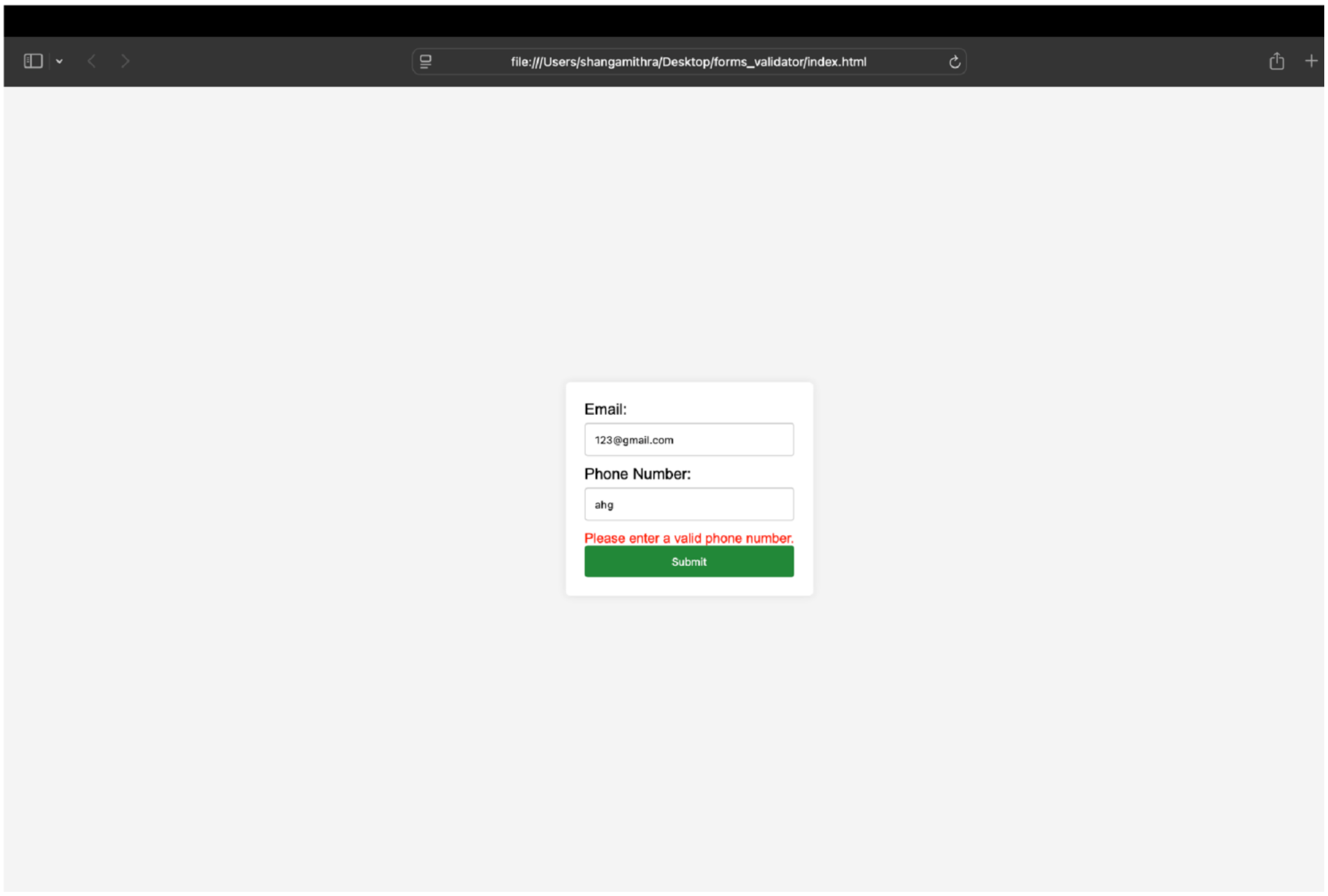
Email:

123@gmail.com

Phone Number:

1234567889

Invalid Input Form — shows error message when incorrect phone number is entered.


file:///Users/shangamithra/Desktop/forms_validator/index.html

Email:

123@gmail.com

Phone Number:

ahg

Please enter a valid phone number.

Conclusion

This project demonstrates real-time form validation using JavaScript and Validator.js, ensuring that data collected from users is accurate and reliable.
It offers a strong foundation for building more complex forms in larger web applications.