

2024S-T2 CSDD1007 - Front-End Web Development

In-class Assignment 1 (10%)

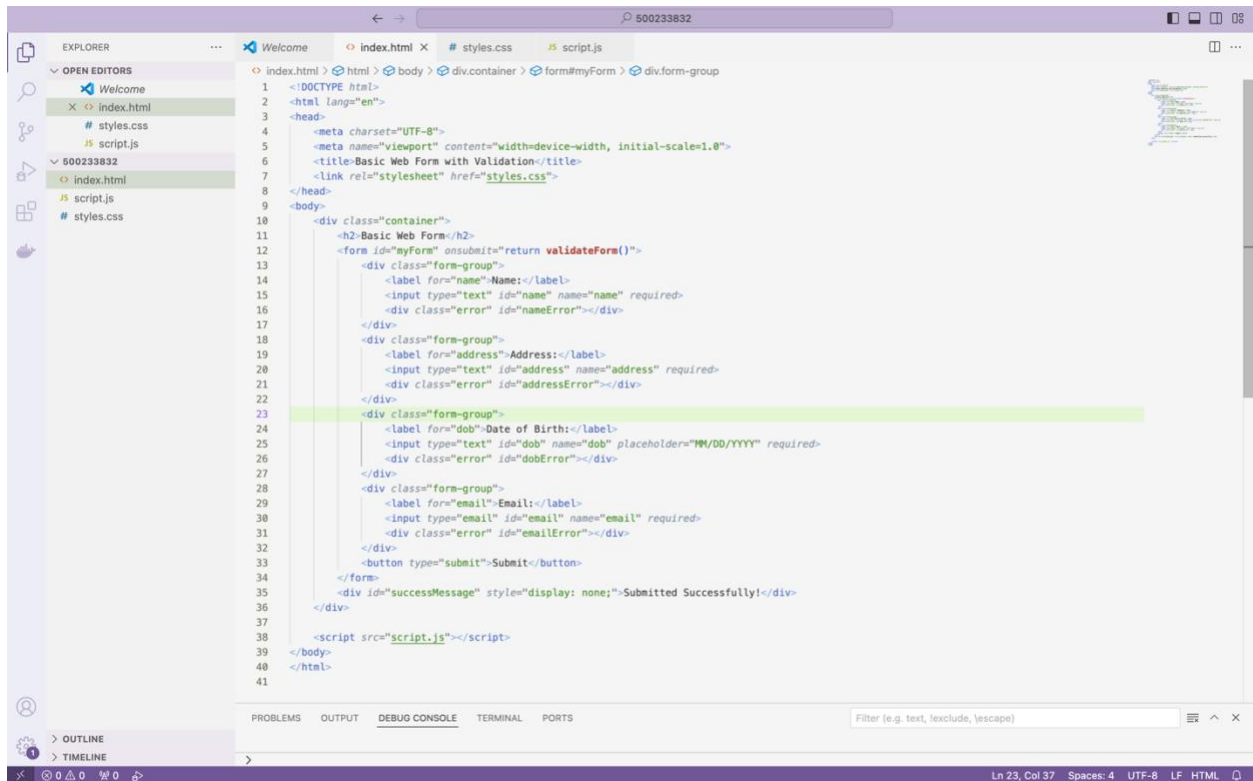
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Creating a Basic Web Form with Validation

HTML Structure



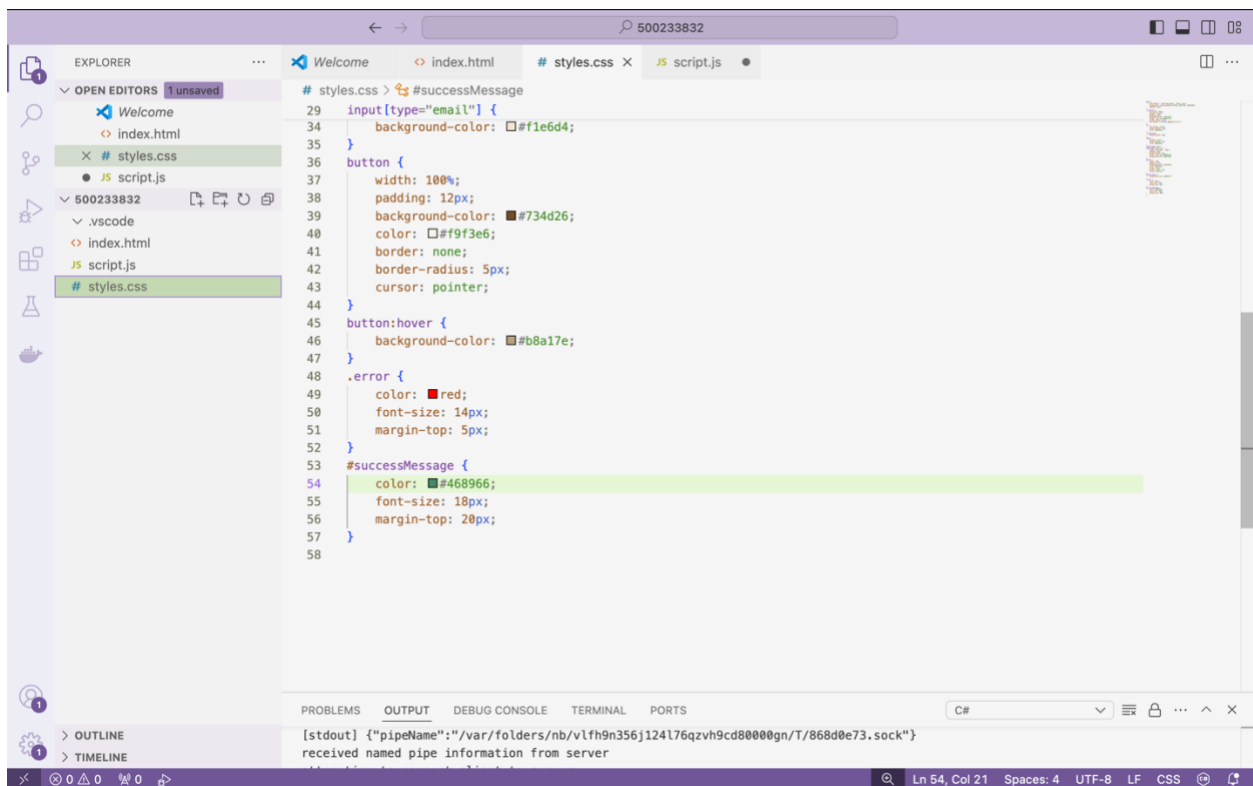
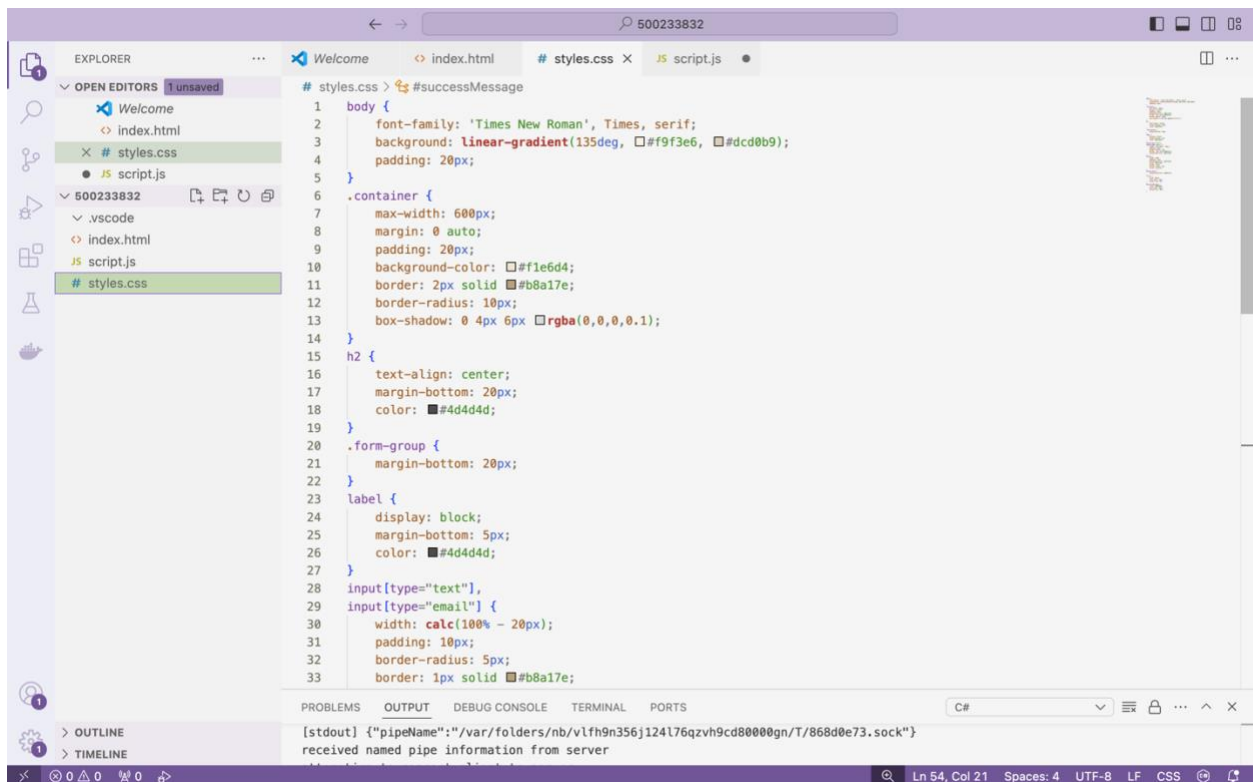
The screenshot shows a code editor with the following structure:

- EXPLORER:**
 - OPEN EDITORS
 - Welcome
 - index.html
 - styles.css
 - script.js
 - 500233832
 - index.html
 - script.js
 - styles.css

- index.html:**

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Basic Web Form with Validation</title>
7   <link rel="stylesheet" href="styles.css">
8 </head>
9 <body>
10  <div class="container">
11    <h2>Basic Web Form</h2>
12    <form id="myForm" onsubmit="return validateForm()">
13      <div class="form-group">
14        <label for="name">Name:</label>
15        <input type="text" id="name" name="name" required>
16        <div class="error" id="nameError"></div>
17      </div>
18      <div class="form-group">
19        <label for="address">Address:</label>
20        <input type="text" id="address" name="address" required>
21        <div class="error" id="addressError"></div>
22      </div>
23      <div class="form-group">
24        <label for="dob">Date of Birth:</label>
25        <input type="text" id="dob" name="dob" placeholder="MM/DD/YYYY" required>
26        <div class="error" id="dobError"></div>
27      </div>
28      <div class="form-group">
29        <label for="email">Email:</label>
30        <input type="email" id="email" name="email" required>
31        <div class="error" id="emailError"></div>
32      </div>
33      <button type="submit">Submit</button>
34    </form>
35    <div id="successMessage" style="display: none;">Submitted Successfully!</div>
36  </div>
37  <script src="script.js"></script>
38 </body>
39 </html>
```
- DEBUG CONSOLE:** Filter (e.g. text, exclude, _escape)
- STATUS BAR:** Ln 23, Col 37 Spaces: 4 UTF-8 LF HTML

CSS (styles.css)



JavaScript (script.js)

This screenshot shows the initial state of the JavaScript file. The Explorer sidebar on the left lists the project files: 'Welcome', 'index.html', 'styles.css', and 'script.js'. The main editor area displays the 'script.js' file with a function named 'validateForm'. The code includes comments and logic to retrieve values from input fields (name, address, dob, email) and to set error messages for each field. The 'isValid' variable is initialized to 'true'. The code is currently at line 33.

```
1 // Function to validate the form
2 function validateForm() {
3     // Get values from input fields
4     var name = document.getElementById("name").value;
5     var address = document.getElementById("address").value;
6     var dob = document.getElementById("dob").value;
7     var email = document.getElementById("email").value;
8
9     // Get error message elements
10    var nameError = document.getElementById("nameError");
11    var addressError = document.getElementById("addressError");
12    var dobError = document.getElementById("dobError");
13    var emailError = document.getElementById("emailError");
14
15    // Clear previous error messages
16    nameError.innerHTML = "";
17    addressError.innerHTML = "";
18    dobError.innerHTML = "";
19    emailError.innerHTML = "";
20
21    var isValid = true;
22
23    // Check if name is empty
24    if (name === "") {
25        nameError.innerHTML = "Name is required";
26        isValid = false;
27    }
28
29    // Check if address is empty
30    if (address === "") {
31        addressError.innerHTML = "Address is required";
32        isValid = false;
33    }
```

The bottom status bar shows the current position: 'Ln 51, Col 19'.

This screenshot shows the completed JavaScript code. The 'validateForm' function now includes logic to check the date of birth (dob) and email format. It uses 'isValidDate' and 'isValidEmail' helper functions. The code sets success or error messages and updates the 'isValid' variable. The 'if (isValid)' block now displays a success message and prevents form submission. The 'else' block prevents form submission if any field is invalid. The code is currently at line 65.

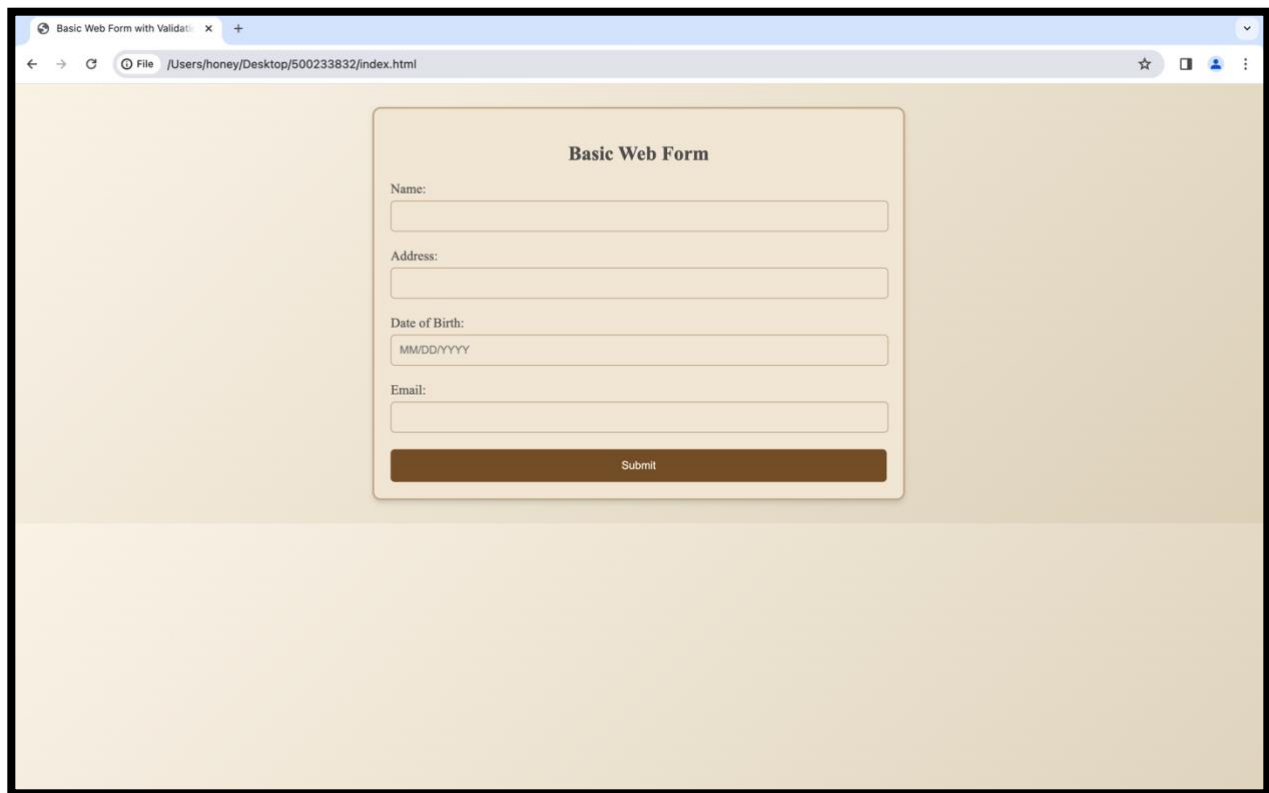
```
34 // Check if date of birth is empty or in a valid format
35 if (dob === "" || !isValidDate(dob)) {
36     dobError.innerHTML = "Please enter a valid date (MM/DD/YYYY)";
37     isValid = false;
38 }
39 // Check if email is empty or in a valid format
40 if (email === "") {
41     emailError.innerHTML = "Email is required";
42     isValid = false;
43 } else if (!isValidEmail(email)) {
44     emailError.innerHTML = "Please enter a valid email address";
45     isValid = false;
46 }
47 // If form is valid, display success message
48 if (isValid) {
49     document.getElementById("successMessage").style.display = "block";
50     return false; // Prevent form submission
51 } else {
52     return false; // Prevent form submission
53 }
54
55 // Function to check if date is in valid format (MM/DD/YYYY)
56 function isValidDate(dateString) {
57     var regex = /^(\d{2})\/(\d{2})\/(\d{4})$/;
58     return regex.test(dateString);
59 }
60 // Function to check if email is in valid format
61 function isValidEmail(email) {
62     var regex = /^[^\s@]+@[^\s@]+\.[^\s@]+$/;
63     return regex.test(email);
64 }
65
```

The bottom status bar shows the current position: 'Ln 46, Col 6'.

Screenshots of User Interface of the Web Form

included the following elements:

- Name (input field)
- Address (input field)
- Date of Birth (input field)
- Email (input field)
- Submit Button



The screenshot displays a web browser window with a single tab titled 'Basic Web Form with Validat...'. The address bar shows the file path 'File /Users/honey/Desktop/500233832/index.html'. The main content area features a light beige background with a central white form box. The form is titled 'Basic Web Form' and contains four labeled input fields: 'Name:', 'Address:', 'Date of Birth:', and 'Email:'. The 'Date of Birth' field includes a placeholder 'MM/DD/YYYY'. Below these fields is a dark brown 'Submit' button.

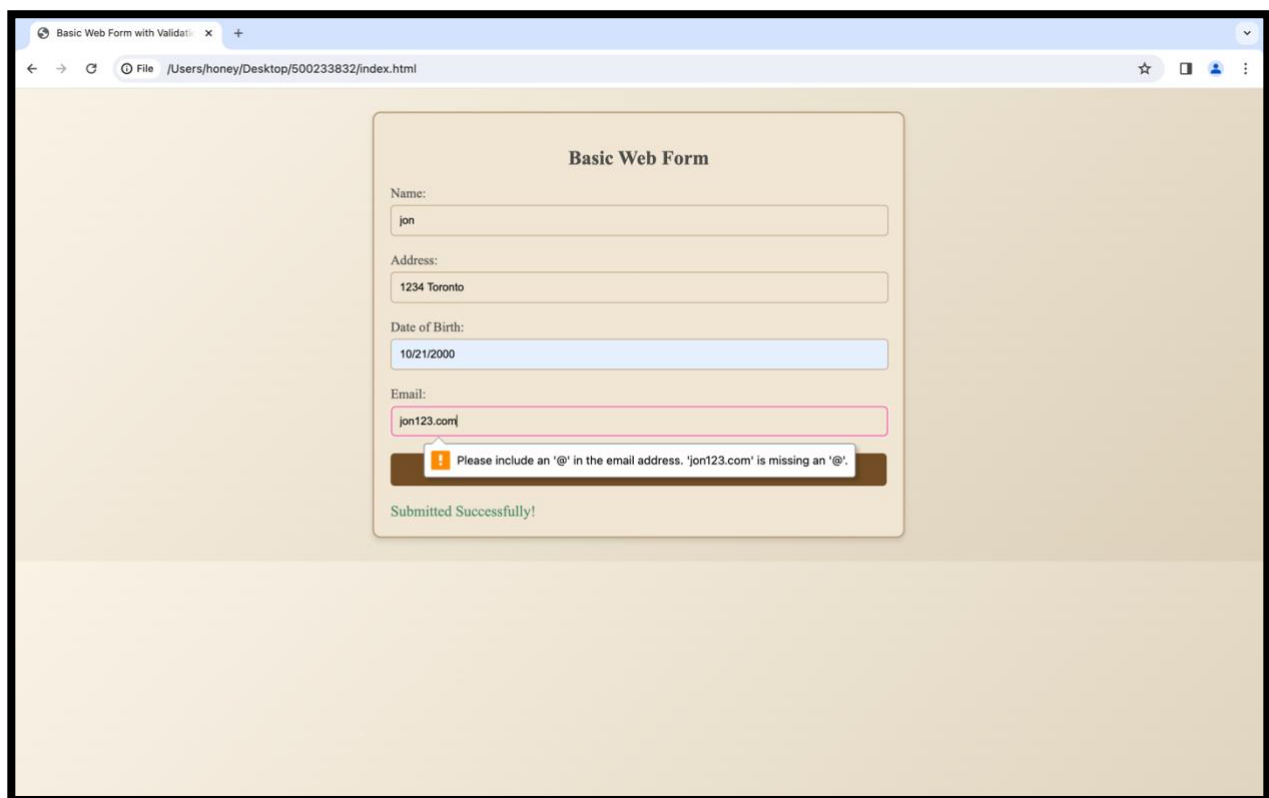
Successfully filling out all fields and submitting the form, a success message is displayed confirming the form submission.

The screenshot shows a web browser window with a single tab titled "Basic Web Form with Validation". The address bar displays the file path "File /Users/honey/Desktop/500233832/index.html". The browser interface includes back, forward, and refresh buttons, as well as icons for bookmarks, extensions, and the user profile. The main content area features a form titled "Basic Web Form" with the following fields and values:

- Name: jon
- Address: 1234 Toronto
- Date of Birth: 10/21/2000
- Email: jon123@gmail.com

Below the input fields is a dark brown "Submit" button. Directly beneath the button, a green message states "Submitted Successfully!".

If an invalid email address is entered, a warning message is displayed before submitting the form.

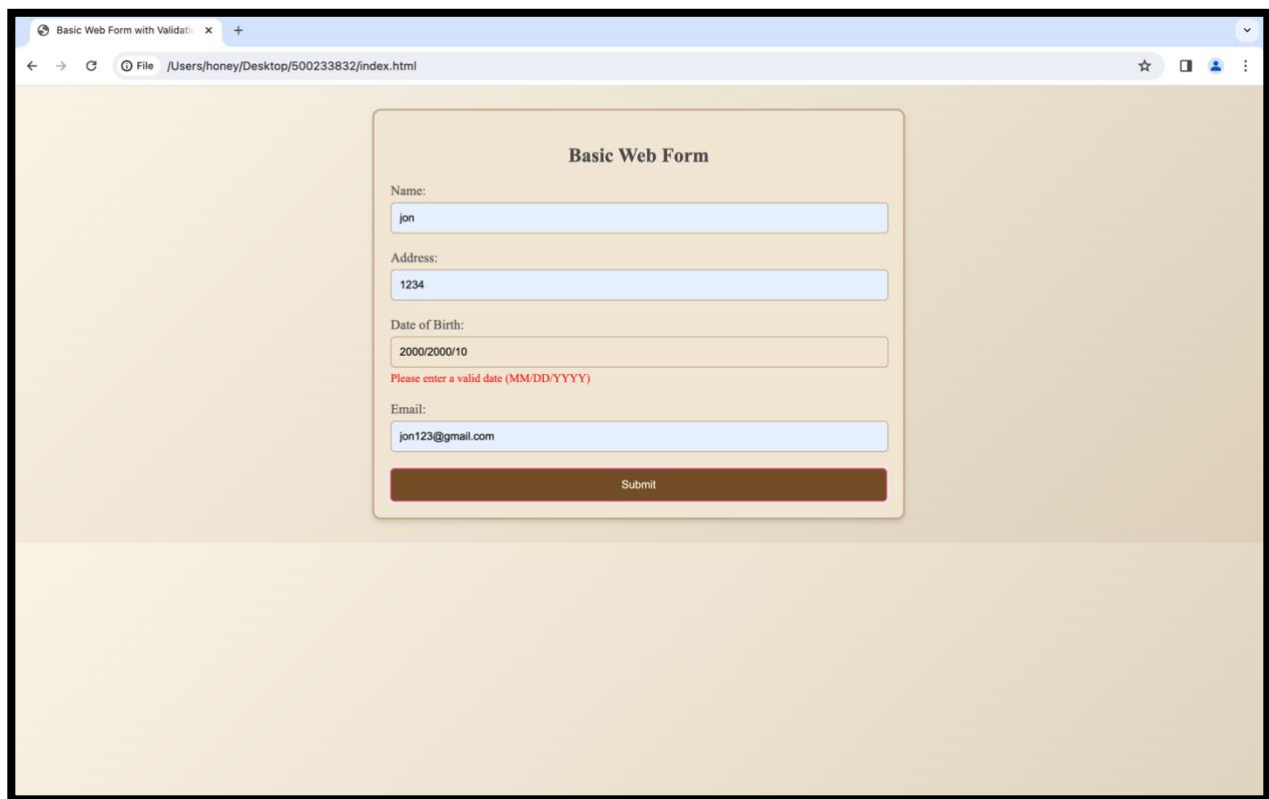


The screenshot shows a web browser window with the title 'Basic Web Form with Validation'. The address bar shows the file path: `File /Users/honey/Desktop/500233832/index.html`. The form itself is titled 'Basic Web Form' and contains the following fields:

- Name:** A text input field containing the value 'jon'.
- Address:** A text input field containing the value '1234 Toronto'.
- Date of Birth:** A date input field containing the value '10/21/2000'.
- Email:** A text input field containing the value 'jon123.com'.

The email field is highlighted with a red border, indicating a validation error. Below the email field, a red error message is displayed: 'Please include an '@' in the email address. 'jon123.com' is missing an '@'.' Below the error message, a green success message is visible: 'Submitted Successfully!'.

Date of Birth is validated to ensure it's in MM/DD/YYYY format. If not in the correct format, an error message is displayed upon submission.

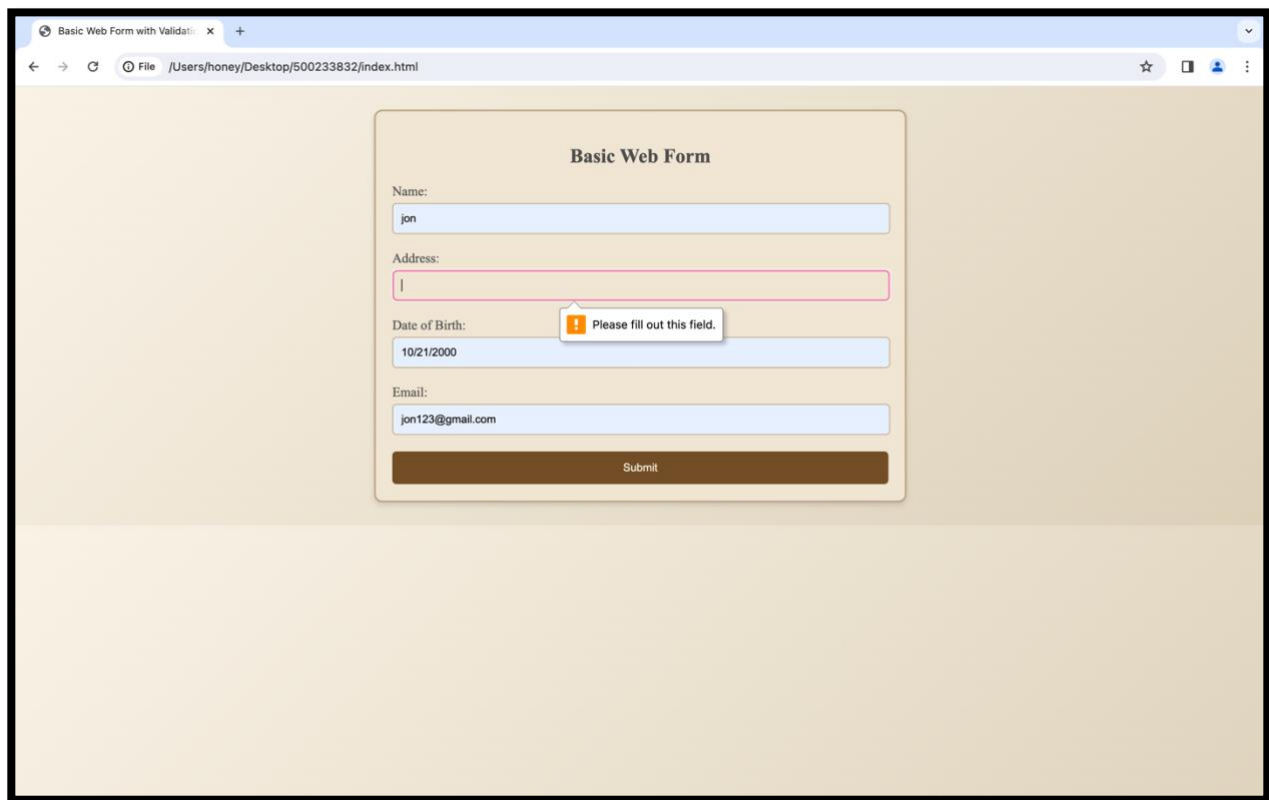


The screenshot shows a web browser window with the title 'Basic Web Form with Validation'. The address bar shows the file path: `File /Users/honey/Desktop/500233832/index.html`. The browser interface includes back, forward, and refresh buttons, as well as star, print, and user icons.

The web form itself is titled 'Basic Web Form' and contains the following fields and elements:

- Name:** A text input field containing the value 'jon'.
- Address:** A text input field containing the value '1234'.
- Date of Birth:** A date input field containing the value '2000/2000/10'. Below this field, a red error message is displayed: 'Please enter a valid date (MM/DD/YYYY)'.
- Email:** A text input field containing the value 'jon123@gmail.com'.
- Submit:** A dark brown button with the text 'Submit' centered on it.

If the user forgets to enter their Address, they will receive a message saying "Please fill out this field" upon form submission.



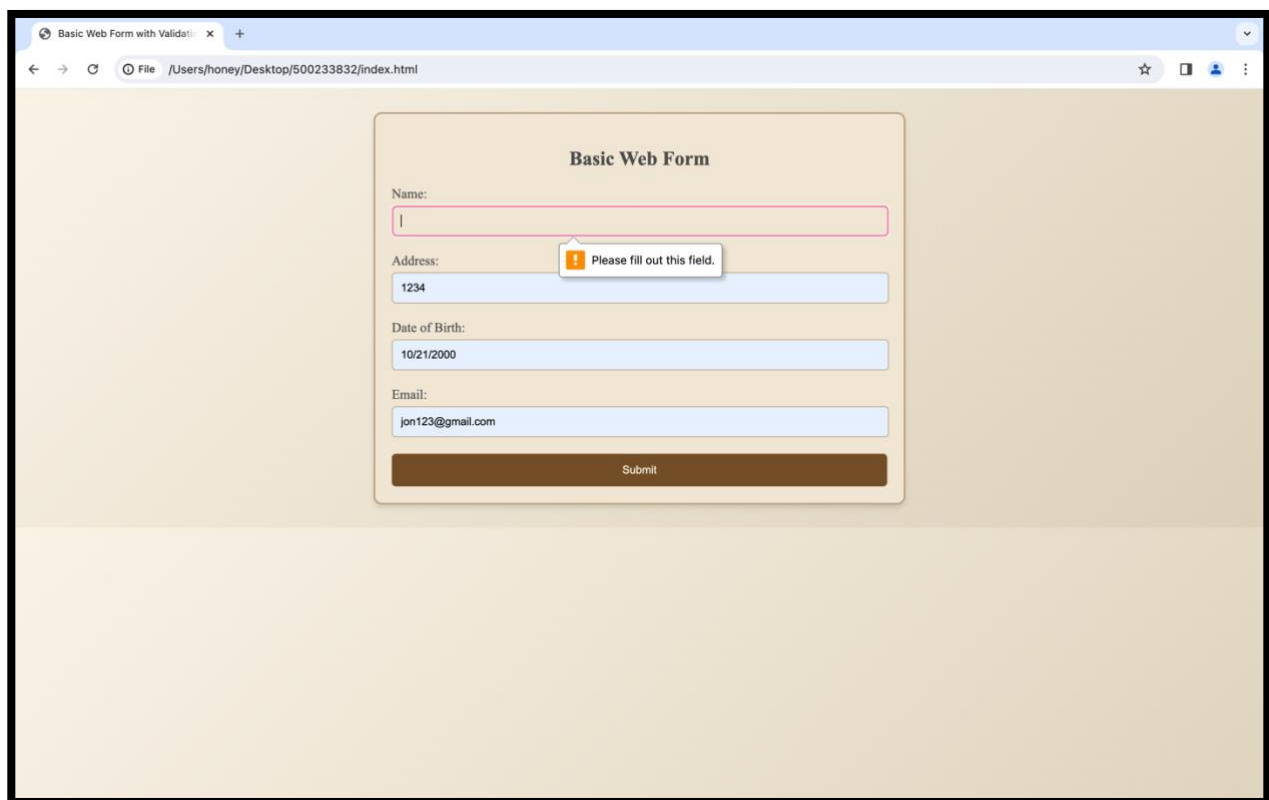
The screenshot shows a web browser window with a single tab titled "Basic Web Form with Validation". The address bar displays the file path: `File /Users/honey/Desktop/500233832/index.html`. The browser interface includes back, forward, and refresh buttons, as well as star, print, and user profile icons.

The web page has a light beige background. Centered on the page is a white rectangular form box with a thin grey border, titled "Basic Web Form" in bold black text. Inside the form box, there are five input fields and a submit button:

- Name:** A text input field containing the value "jon".
- Address:** A text input field that is currently empty. It has a red border, indicating a validation error.
- Date of Birth:** A text input field containing the value "10/21/2000".
- Email:** A text input field containing the value "jon123@gmail.com".
- Submit:** A wide, dark brown button with the word "Submit" in white text.

A small, white tooltip with a red border and a red exclamation mark icon is positioned over the empty Address field. The tooltip contains the text: "Please fill out this field."

If the user forgets to enter their name, they will receive a message saying "Please fill out this field" upon form submission.



The screenshot shows a web browser window with a single tab titled "Basic Web Form with Validation". The address bar displays the file path: `File /Users/honey/Desktop/500233832/index.html`. The browser interface includes back, forward, and refresh buttons, as well as star, square, and user profile icons.

The web form itself is titled "Basic Web Form" and contains the following fields and elements:

- Name:** A text input field that is currently empty and has a red border, indicating a validation error.
- Address:** A text input field containing the value "1234".
- Date of Birth:** A text input field containing the value "10/21/2000".
- Email:** A text input field containing the value "jon123@gmail.com".
- Submit:** A brown button labeled "Submit" located at the bottom of the form.

A validation error message is displayed as a small orange box with a white exclamation mark icon, containing the text "Please fill out this field." This message is positioned over the "Address" field, but it is triggered by the empty "Name" field.