

2024S-T2 CSDD1007 - Front-End Web Development

In-class Assignment 1 (10%)

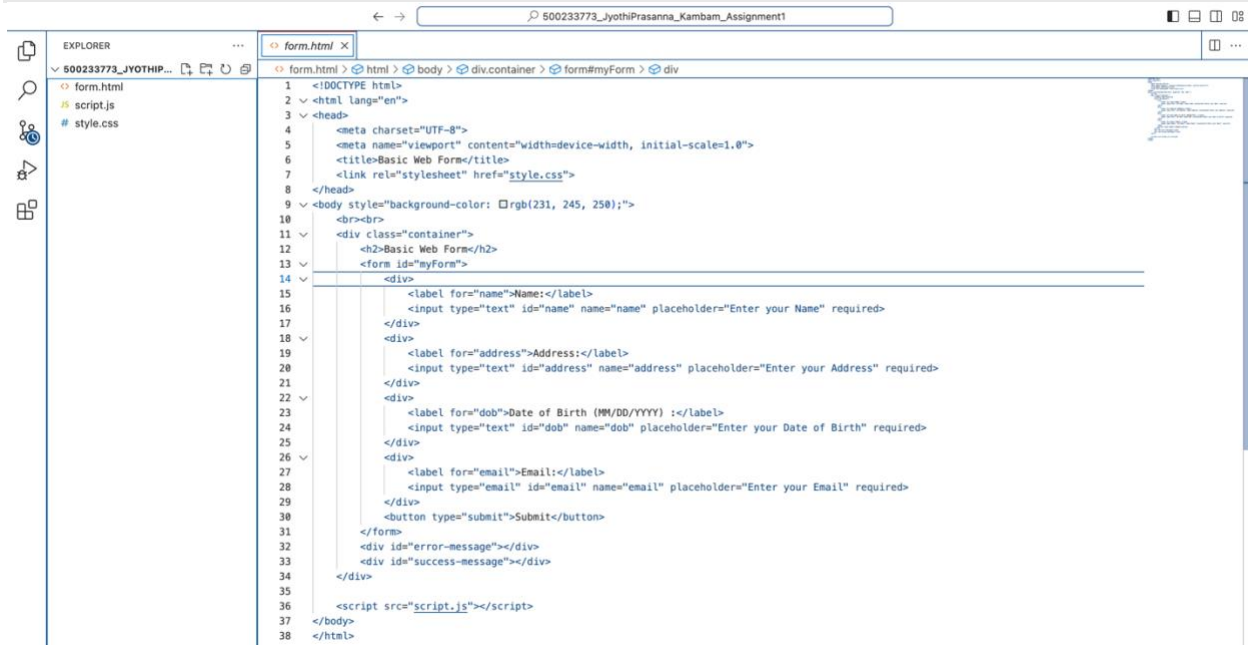
Name: Jyothi Prasanna Kambam

Student Id: 500233773

Email Address: jyothiprasannakam@loyalistcollege.com

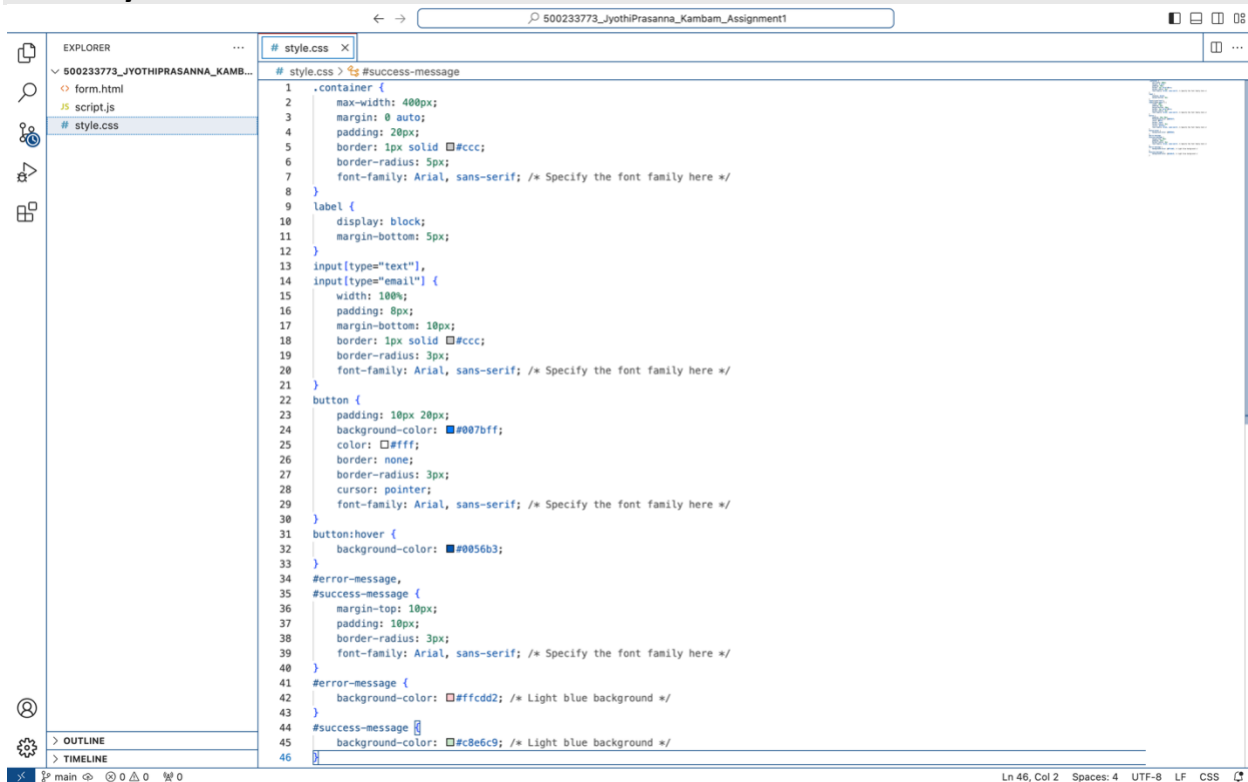
Creating a Basic Web Form with Validation

Created form.html page for User Interface



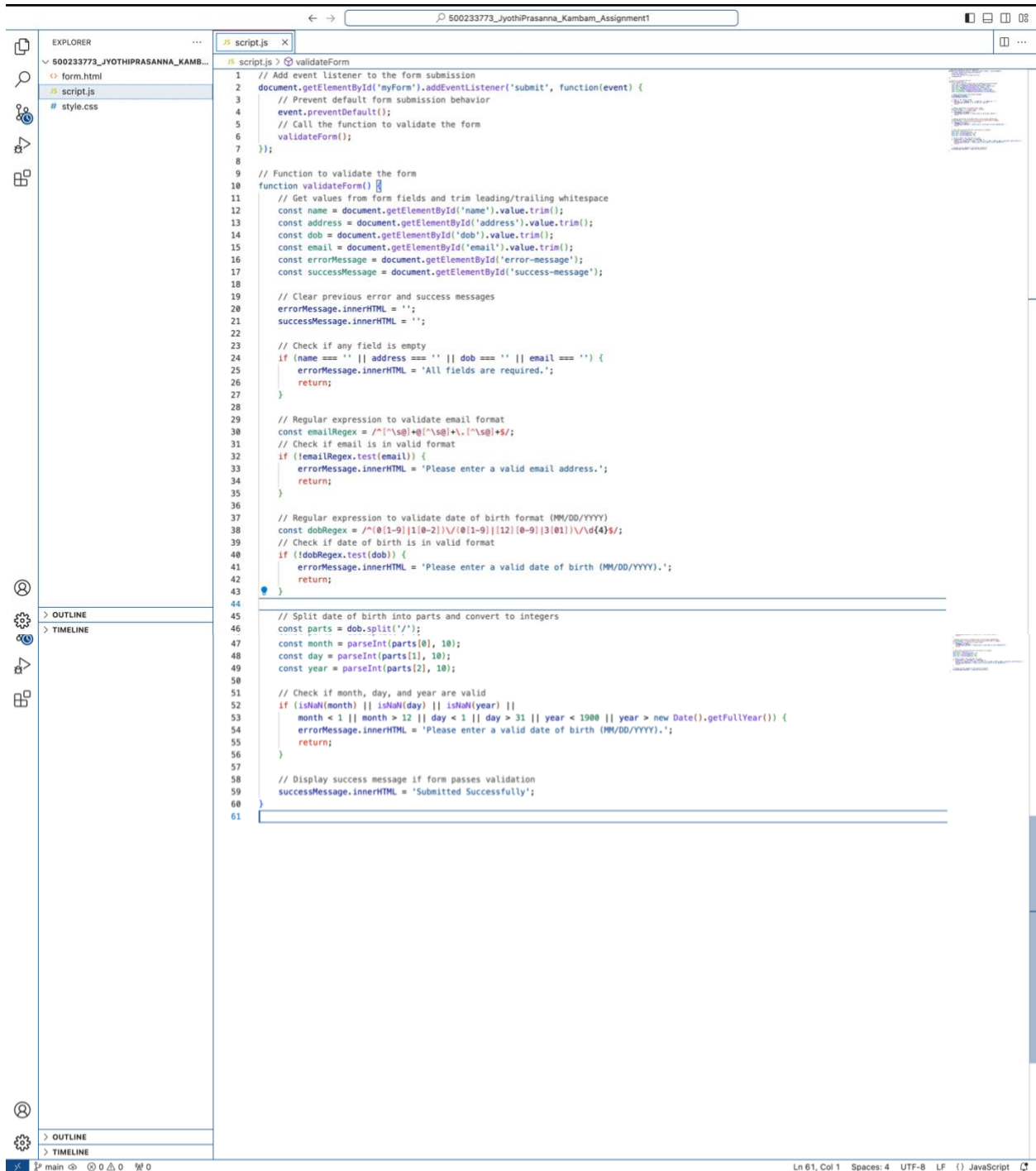
```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4 <meta charset="UTF-8">
5 <meta name="viewport" content="width=device-width, initial-scale=1.0">
6 <title>Basic Web Form</title>
7 <link rel="stylesheet" href="style.css">
8 </head>
9 <body style="background-color: #d3d3d3;">
10 <br><br>
11 <div class="container">
12 <h2>Basic Web Form</h2>
13 <form id="myForm">
14 <div>
15 <label for="name">Name:</label>
16 <input type="text" id="name" name="name" placeholder="Enter your Name" required>
17 </div>
18 <div>
19 <label for="address">Address:</label>
20 <input type="text" id="address" name="address" placeholder="Enter your Address" required>
21 </div>
22 <div>
23 <label for="dob">Date of Birth (MM/DD/YYYY) :</label>
24 <input type="text" id="dob" name="dob" placeholder="Enter your Date of Birth" required>
25 </div>
26 <div>
27 <label for="email">Email:</label>
28 <input type="email" id="email" name="email" placeholder="Enter your Email" required>
29 </div>
30 <button type="submit">Submit</button>
31 </form>
32 <div id="error-message"></div>
33 <div id="success-message"></div>
34 </div>
35 <script src="script.js"></script>
36 </body>
37 </html>
```

Used style.css for look and field of the User Interface



```
1 .container {
2   max-width: 400px;
3   margin: 0 auto;
4   padding: 20px;
5   border: 1px solid #ccc;
6   border-radius: 5px;
7   font-family: Arial, sans-serif; /* Specify the font family here */
8 }
9 label {
10  display: block;
11  margin-bottom: 5px;
12 }
13 input[type="text"],
14 input[type="email"] {
15  width: 100%;
16  padding: 8px;
17  margin-bottom: 10px;
18  border: 1px solid #ccc;
19  border-radius: 3px;
20  font-family: Arial, sans-serif; /* Specify the font family here */
21 }
22 button {
23  padding: 10px 20px;
24  background-color: #007bff;
25  color: #fff;
26  border: none;
27  border-radius: 3px;
28  cursor: pointer;
29  font-family: Arial, sans-serif; /* Specify the font family here */
30 }
31 button:hover {
32  background-color: #0056b3;
33 }
34 #error-message,
35 #success-message {
36  margin-top: 10px;
37  padding: 10px;
38  border-radius: 3px;
39  font-family: Arial, sans-serif; /* Specify the font family here */
40 }
41 #error-message {
42  background-color: #ffccdd; /* Light blue background */
43 }
44 #success-message {
45  background-color: #c8e6c9; /* Light blue background */
46 }
```

Used script.js to enhance the functionality of the Basic Web Form



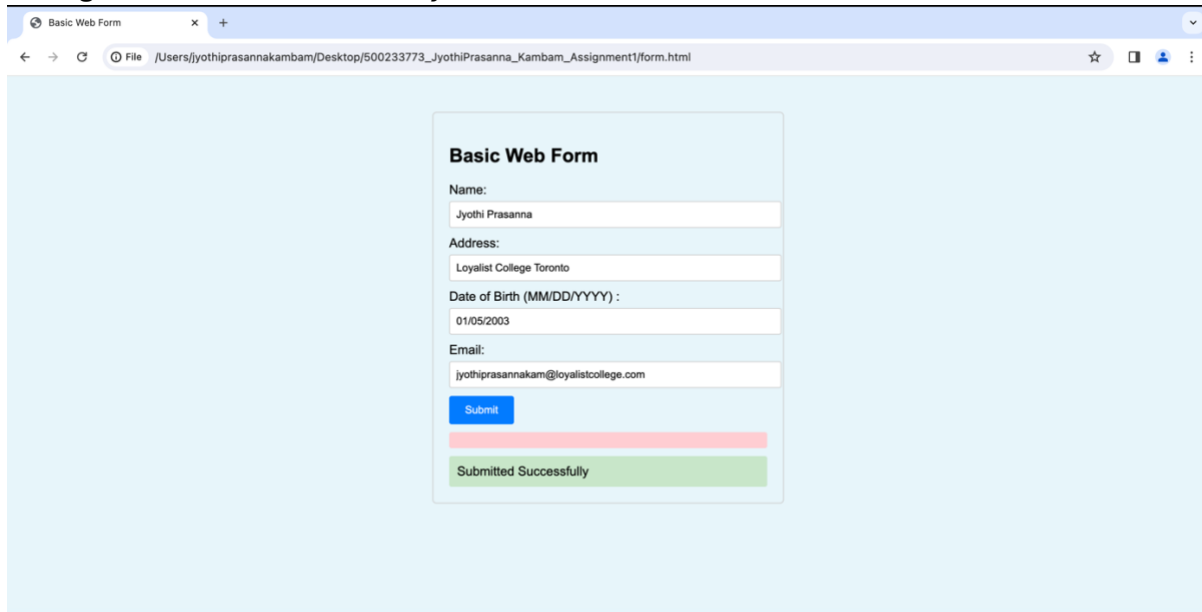
The screenshot displays a web development IDE with a file explorer on the left and a code editor in the center. The file explorer shows a project named '500233773_JYOTHI PRASANNA_KAMBAM...' containing files 'form.html', 'script.js', and 'style.css'. The code editor is open to 'script.js', which contains a JavaScript function named 'validateForm'. This function is triggered by a 'submit' event on a form with the ID 'myForm'. It performs several validation checks: it first checks if any of the 'name', 'address', 'dob', or 'email' fields are empty; if so, it sets an error message 'All fields are required.'. Next, it validates the email format using a regular expression. Then, it validates the date of birth (dob) format using another regular expression. If the date is valid, it splits the date string into parts (month, day, year) and checks if they are valid (e.g., month between 1 and 12, day between 1 and 31, year greater than 1900). If all checks pass, it displays a success message 'Submitted Successfully!'.

```
1 // Add event listener to the form submission
2 document.getElementById('myForm').addEventListener('submit', function(event) {
3     // Prevent default form submission behavior
4     event.preventDefault();
5     // Call the function to validate the form
6     validateForm();
7 });
8
9 // Function to validate the form
10 function validateForm() {
11     // Get values from form fields and trim leading/trailing whitespace
12     const name = document.getElementById('name').value.trim();
13     const address = document.getElementById('address').value.trim();
14     const dob = document.getElementById('dob').value.trim();
15     const email = document.getElementById('email').value.trim();
16     const errorMessage = document.getElementById('error-message');
17     const successMessage = document.getElementById('success-message');
18
19     // Clear previous error and success messages
20     errorMessage.innerHTML = '';
21     successMessage.innerHTML = '';
22
23     // Check if any field is empty
24     if (name === '' || address === '' || dob === '' || email === '') {
25         errorMessage.innerHTML = 'All fields are required.';
26         return;
27     }
28
29     // Regular expression to validate email format
30     const emailRegex = /^[^\s@]+@[^\s@]+\.[^\s@]+$/;
31     // Check if email is in valid format
32     if (!emailRegex.test(email)) {
33         errorMessage.innerHTML = 'Please enter a valid email address.';
34         return;
35     }
36
37     // Regular expression to validate date of birth format (MM/DD/YYYY)
38     const dobRegex = /^(0[1-9]|1[0-2])\/(0[1-9]|1[2])\/(0[1-9]|3[01])\d{4}$/;
39     // Check if date of birth is in valid format
40     if (!dobRegex.test(dob)) {
41         errorMessage.innerHTML = 'Please enter a valid date of birth (MM/DD/YYYY).';
42         return;
43     }
44
45     // Split date of birth into parts and convert to integers
46     const parts = dob.split('/');
47     const month = parseInt(parts[0], 10);
48     const day = parseInt(parts[1], 10);
49     const year = parseInt(parts[2], 10);
50
51     // Check if month, day, and year are valid
52     if (isNaN(month) || isNaN(day) || isNaN(year) ||
53         month < 1 || month > 12 || day < 1 || day > 31 || year < 1900 || year > new Date().getFullYear()) {
54         errorMessage.innerHTML = 'Please enter a valid date of birth (MM/DD/YYYY).';
55         return;
56     }
57
58     // Display success message if form passes validation
59     successMessage.innerHTML = 'Submitted Successfully!';
60 }
61
```

Ln 61, Col 1 Spaces: 4 UTF-8 LF JavaScript

Screenshots of User Interface of the Web Form

After filling out all the fields and submitting the form, received a success message that form got *submitted successfully*.

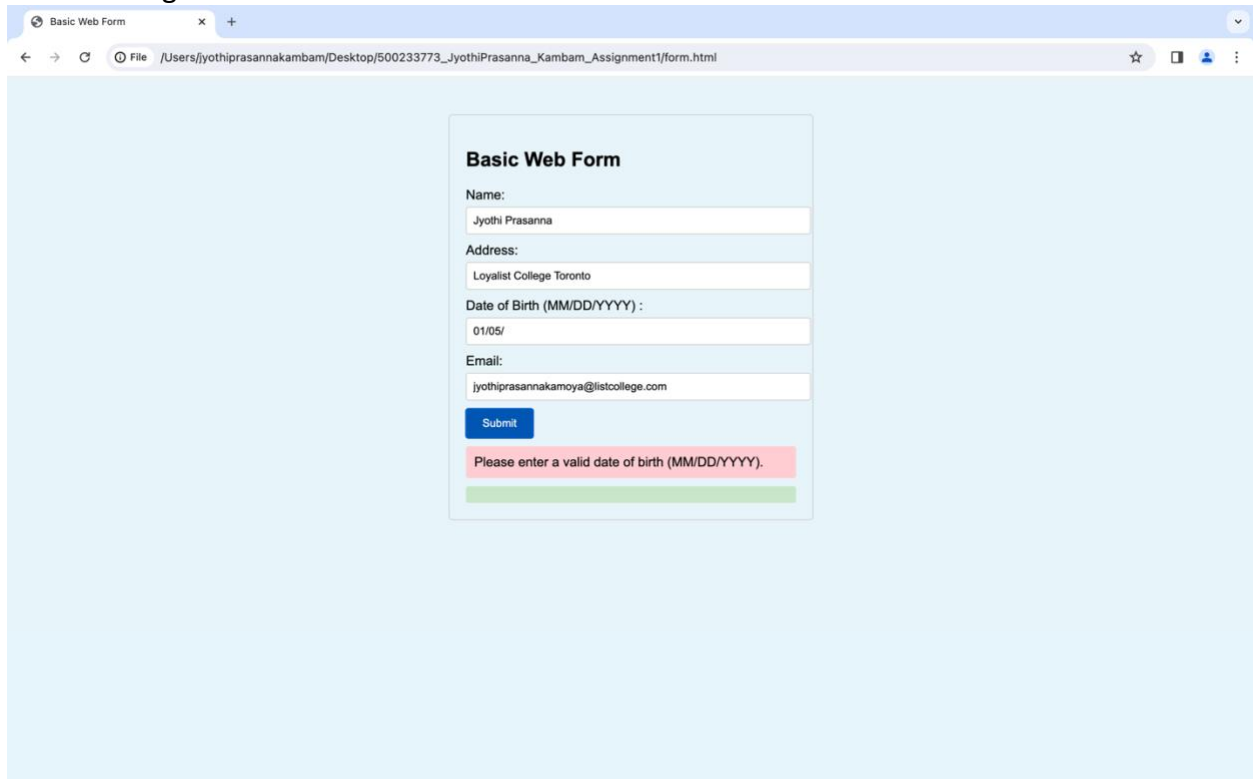


The screenshot shows a web browser window with the address bar displaying the file path: `/Users/jyothiprasannakambam/Desktop/500233773_JyothiPrasanna_Kambam_Assignment1/form.html`. The form itself is titled "Basic Web Form" and contains the following fields and values:

- Name: Jyothi Prasanna
- Address: Loyalist College Toronto
- Date of Birth (MM/DD/YYYY): 01/05/2003
- Email: jyothiprasannakam@loyalistcollege.com

Below the fields is a blue "Submit" button. A green message box at the bottom of the form area displays the text "Submitted Successfully".

The user did not use the proper format for *Date of Birth* and submitted the form, resulting an error message.



This screenshot shows the same "Basic Web Form" after an invalid submission. The fields are populated with the same data as the previous screenshot, but the "Date of Birth" field now contains "01/05/". Below the "Submit" button, a red error message box appears with the text: "Please enter a valid date of birth (MM/DD/YYYY)".

If the user does not enter a valid *email address*, they will receive a warning before submitting the form.

The screenshot shows a web browser window with the title 'Basic Web Form'. The address bar displays the file path: `/Users/jyothiprasannakambam/Desktop/500233773_Jyothi_Prasanna_Kambam_Assignment/form.html`. The browser's bookmark bar includes 'WhatsApp', 'Log in to the site [...]', 'job', and 'New folder'. The form itself is titled 'Basic Web Form' and contains the following fields:

- Name:** A text input field containing 'Jyothi Prasanna Kambam'.
- Address:** A text input field containing '1241 Birchmount Rd Scarborough, Scarborough, M1P2C9, Canada'.
- Date of Birth (MM/DD/YYYY):** A text input field containing '01/05/2003'.
- Email:** A text input field containing 'jyothiprasannakamloyalistcollege.com'.

A red error message box is displayed below the email field, stating: 'Please include an '@' in the email address. 'jyothiprasannakamloyalistcollege.com' is missing an '@'.' Below the form, there are two horizontal bars, one red and one green.

If the use forgets to enter their *name*, they will receive a message using “Please fill out this field.”

The screenshot shows the same web browser window as before, but the 'Basic Web Form' now has a different state. The 'Name' field is empty and has a placeholder text 'Enter your Name'. A red error message box is now displayed over the 'Name' field, stating: 'Please fill out this field.' The 'Address' field now contains the same text as before: '1241 Birchmount Rd Scarborough, Scarborough, M1P2C9, Canada'. The 'Date of Birth' and 'Email' fields remain unchanged. A blue 'Submit' button is now visible below the email field. Below the form, there are two horizontal bars, one red and one green.

If the user forgets to enter their *address*, they will receive a message using “Please fill out this field.”

The screenshot shows a web browser window with the title 'Basic Web Form'. The address bar displays the file path: `/Users/jyothiprasannakambam/Desktop/500233773_Jyothi_Prasanna_Kambam_Assignment/form.html`. The browser's bookmark bar includes 'WhatsApp', 'Log in to the site [...]', 'job', 'New folder', and 'All Bookmarks'.

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

- Name:** A text input field containing 'Jyothi Prasanna Kambam'.
- Address:** A text input field with the placeholder text 'Enter your Address'. This field is currently empty.
- Date of Birth (MM/DD/YYYY):** A text input field containing '01/05/2003'. A validation error message, 'Please fill out this field.', is displayed in a small box above this field.
- Email:** A text input field containing 'jyothiprasannakambam@loyalistcollege.com'.
- Submit:** A blue button labeled 'Submit'.

Below the 'Submit' button, there are two horizontal bars, one pink and one green, which likely represent progress or status indicators.