

VALIDATING FORM DATA

Name:	Ralph Edcel R. Fabian	Date:	09 - 14 - 2023
Program:	BS CPE	Section:	A361

Intended Learning Outcomes:

1. Write functions to react to events.
2. Validate HTML forms.

Design a simple form that contains the following details:

- First Name
- Middle Initial
- Last Name
- E-Mail Address

Here is an example form:

Sign Up

The form must be able to validate if the First Name, Middle Initial, and Last Name fields have corresponding inputs (regardless of content). The form must also validate if there is an invalid e-mail address format presented. There must be an alert message to signify that there are invalid inputs.

Here is a sample output:

Sign Up

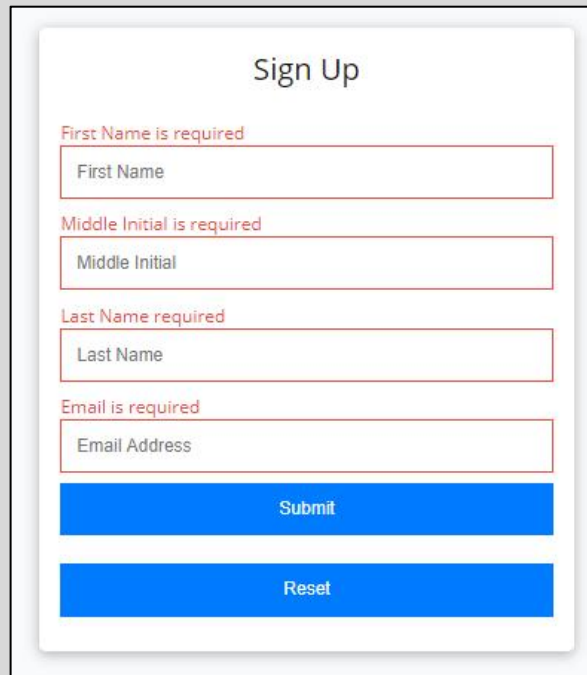
Email is required

Sign Up

Invalid email format

VALIDATING FORM DATA

The form must be able to see if there are no inputs placed. Here is a sample output:



Sign Up

First Name is required

Middle Initial is required

Last Name required

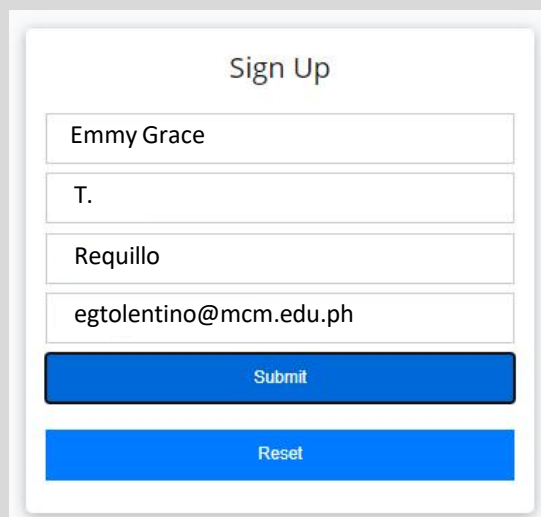
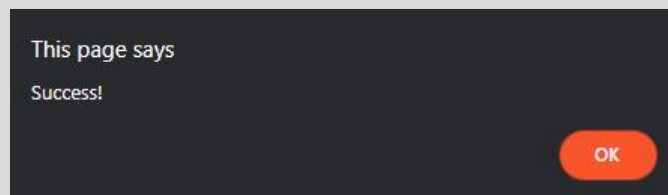
Email is required

Submit

Reset

Once the form validates all inputs, an alert box must be seen that says **Success!**

Here is a sample output:



Sign Up

Submit

Reset

=====

HTML Source Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <link rel="stylesheet" href="styles.css">
  <title>Fabian_Lab Task 6</title>
  <link rel="shortcut icon" href="images/favicon.png" />
</head>
<body>
  <div class="container">
    <form id="signup-form">
      <div class="form-group">
        <label for="first-name">First Name</label>
        <input type="text" id="first-name" name="first-name">
        <div class="error-message" id="first-name-error"></div>
      </div>
      <div class="form-group">
        <label for="middle-initial">Middle Initial</label>
        <input type="text" id="middle-initial" name="middle-initial">
        <div class="error-message" id="middle-initial-error"></div>
      </div>
      <div class="form-group">
        <label for="last-name">Last Name</label>
        <input type="text" id="last-name" name="last-name">
        <div class="error-message" id="last-name-error"></div>
      </div>
      <div class="form-group">
        <label for="email">E-Mail Address</label>
        <input type="text" id="email" name="email">
        <div class="error-message" id="email-error"></div>
      </div>

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

      <button type="reset">Reset</button>

    </form>
  </div>
  <script src="script.js"></script>
</body>
</html>
```

CSS Source Code:

```
body {
    font-family: Arial, Helvetica, sans-serif;
    display: flex;
    justify-content: center;
    align-items: center;
    height: 100vh;
    margin: 0;
    background-image: url("images/background.jpg");
    background-color: #f0f0f0;
    background-position: center;
    opacity: 0.95;
    background-repeat: no-repeat;
    background-size: cover;
}

.container {
    background-color: aliceblue;
    padding: 4%;
    border-radius: 5%;
    box-shadow: 0 0 10px rgba(0, 0, 0, 0.2);
    max-width: 80%;
    margin: 0 auto;
}

.form-group {
    margin-bottom: 5%;
}

label {
    font-weight: bold;
}

input[type="text"] {
    width: 100%;
    padding: 3%;
    border: 1px solid #ccc;
    border-radius: 5px;
}

.error-message {
    color: red;
    font-size: 100%;
    display: none;
}

.input-error {
    border: 1px solid red;
}

button {
    width: 100%;
    padding: 5%;
    background-color: #007BFF;
    color: #fff;
    border: none;
    border-radius: 5px;
    cursor: pointer;
    margin-bottom: 3%;
}

button[type="reset"] {
    background-color: #dc3545;
    margin-top: 4%;
}
```

VALIDATING FORM DATA**JavaScript Source Code:**

```
document.addEventListener("DOMContentLoaded", function () {
    const form = document.getElementById("signup-form");
    const firstName = document.getElementById("first-name");
    const middleInitial = document.getElementById("middle-initial");
    const lastName = document.getElementById("last-name");
    const email = document.getElementById("email");

    form.addEventListener("submit", function (e) {
        e.preventDefault();
        clearErrorMessages();

        if (!validateInput(firstName.value)) {
            displayErrorMessage("first-name-error", "First Name is required");
            markInputAsError(firstName);
        }
        if (!validateInput(middleInitial.value)) {
            displayErrorMessage("middle-initial-error", "Middle Initial is required");
            markInputAsError(middleInitial);
        }

        if (!validateInput(lastName.value)) {
            displayErrorMessage("last-name-error", "Last Name is required");
            markInputAsError(lastName);
        }
        if (!validateEmail(email.value)) {
            displayErrorMessage("email-error", "Invalid Email Address");
            markInputAsError(email);
        }
        if (validateInput(firstName.value) && validateInput(middleInitial.value) &&
            validateInput(lastName.value) && validateEmail(email.value)) {
            alert("Success!");
            form.reset();
        }
    });

    function validateInput(input) {
        return input.trim() !== "";
    }

    function validateEmail(input) {
        const emailPattern = /^[^\s@]+@[^\s@]+\.[^\s@]+$/;
        return emailPattern.test(input);
    }

    function displayErrorMessage(id, message) {
        const errorMessage = document.getElementById(id);
        errorMessage.textContent = message;
        errorMessage.style.display = "block";
    }

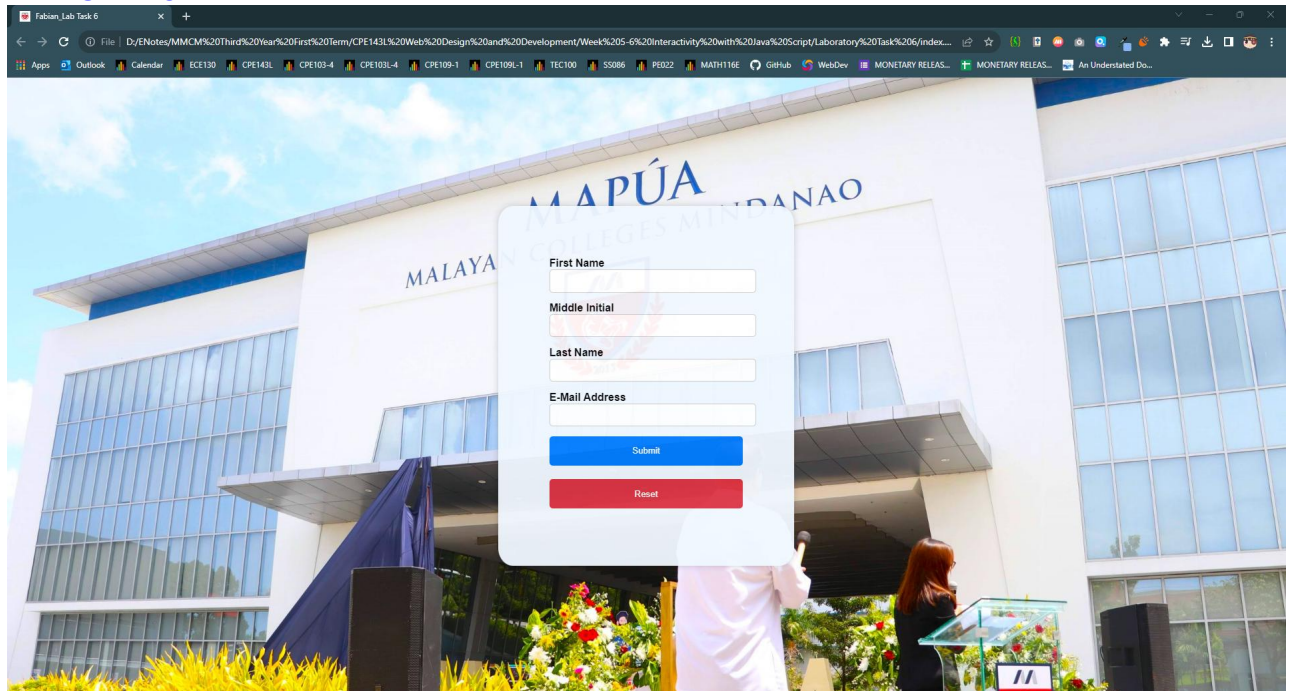
    function markInputAsError(inputField) {
        inputField.style.border = "1px solid red";
    }

    function clearErrorMessages() {
        const errorMessages = document.querySelectorAll(".error-message");
        errorMessages.forEach((errorMessage) => {
            errorMessage.textContent = "";
            errorMessage.style.display = "none";
        });

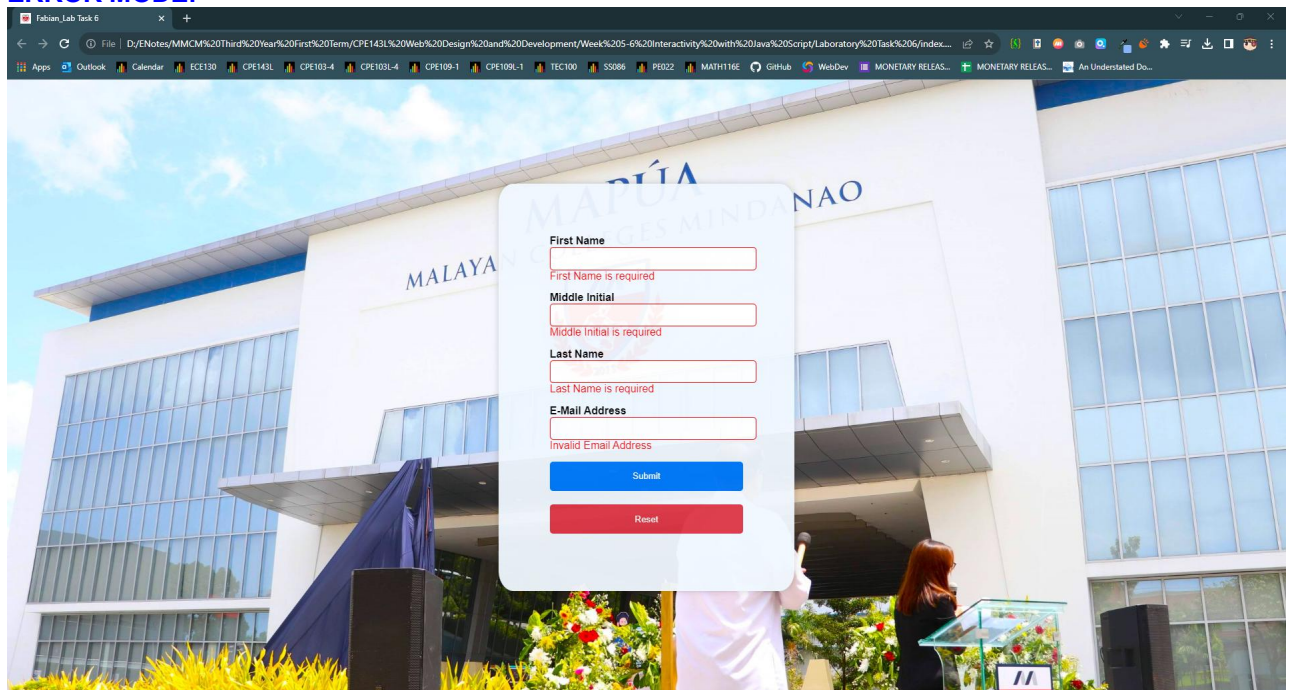
        const inputFields = [firstName, middleInitial, lastName, email];
        inputFields.forEach((inputField) => {
            inputField.style.border = "1px solid #ccc";
        });
    }
});
```

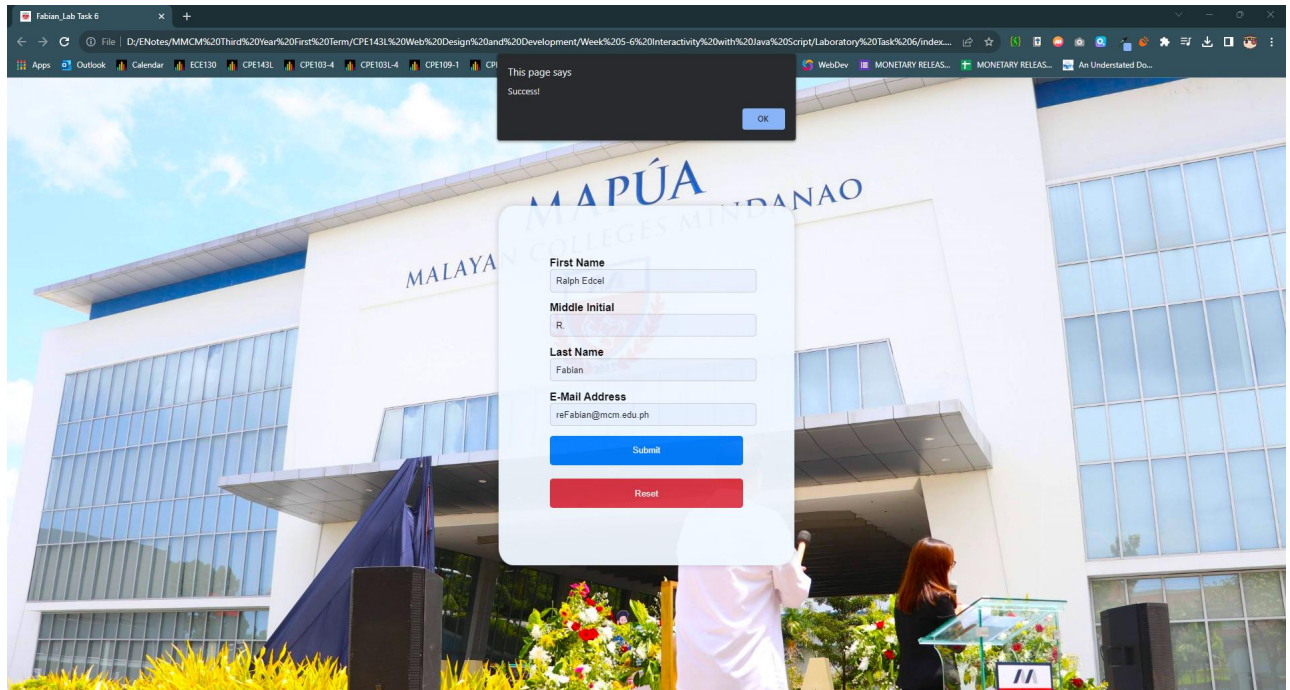
Output:

DEFAULT MODE:



ERROR MODE:



SUCCESS MODE:**Findings and Observations:**

In this guided experiment, I acquired new knowledge of JavaScript. These lessons are event listeners, form validation techniques, and DOM manipulation that provides robust foundation for my JavaScript skills. I realized that this experiment had a strong connection to Object-Oriented Programming (OOP) principles. This insight propelled my understanding of OOP's practical applications using another language, the JavaScript.

As for the coding exercise, it required approximately 5 hours of dedicated effort to complete the sign-up form successfully. During this process, I made extensive use of YouTube tutorials, guides, forums, and sought guidance from ChatGPT to clarify concepts and best practices. While I possessed knowledge of event listeners and placeholders in an OOP, adapting these skills to a new programming language posed challenges. Nonetheless, through patience and thorough research, I was able to overcome these hurdles. I am very happy that the resulting form design, error message handling, and input validation greatly enhanced the user experience.

Overall, this coding exercise provided a practical application of my JavaScript expertise and a valuable learning experience that I will certainly use for my final output.