A close up of a logo

Description automatically generated

**JavaScript Basics**

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**LAB MANUAL**

**Basic Event Handling Displaying Alert on Button Click**

**Objective:**

The objective of this activity is to help learners understand how to handle basic events in JavaScript, specifically how to respond when a user clicks a button. Participants will learn how to link a JavaScript function to a button click event, triggering an alert message. By the end of this activity, learners will be comfortable with setting up simple event listeners and executing JavaScript code based on user interactions.

**Equipment Required:**

* A computer with a text editor (such as VS Code, Sublime Text, Notepad++)
* A modern web browser (Chrome, Firefox, Edge, etc.)

**Prerequisites:**

* Familiarity with basic HTML structure
* Basic understanding of JavaScript syntax and functions
* Ability to save and open .html files in a browser

**Problem Statement:**

You are required to create a simple webpage with a button. When the user clicks the button, a JavaScript alert box should appear displaying a custom message (e.g., "Button is clicked!"). This will demonstrate the fundamental concept of event handling in JavaScript by connecting a click event to a button element.

**Procedure:**

1. Create a new file called ***button\_click\_alert.html***.
2. Write the basic HTML boilerplate including <head> and <body>.
3. Inside the <body>, add a <button> element with a label such as "Click Me".
4. Write a JavaScript function that displays an alert message when called.
5. Attach the JavaScript function to the button’s click event using either the onclick attribute or JavaScript event listeners.
6. Save the file and open it in your web browser.
7. Click the button to verify that the alert box appears with the message.

**Code**

***button\_click\_alert.html***

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8" />

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

<title>Basic Event Handling - Alert on Button Click</title>

<style>

body {

font-family: 'Inter', sans-serif;

display: flex;

justify-content: center;

align-items: center;

height: 100vh;

background-color: #f0f4f8;

margin: 0;

padding: 20px;

}

button {

font-size: 1.2rem;

padding: 12px 25px;

cursor: pointer;

border: none;

border-radius: 6px;

background-color: #007bff;

color: white;

transition: background-color 0.3s ease;

box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);

}

button:hover {

background-color: #0056b3;

}

.message-box-container {

position: fixed;

top: 0;

left: 0;

width: 100%;

height: 100%;

background-color: rgba(0, 0, 0, 0.5);

display: none;

justify-content: center;

align-items: center;

z-index: 1000;

}

.message-box {

background-color: white;

padding: 2rem;

border-radius: 12px;

box-shadow: 0 10px 20px rgba(0, 0, 0, 0.2);

text-align: center;

width: 90%;

max-width: 400px;

}

.message-box h3 {

margin-top: 0;

color: #333;

}

.message-box p {

font-size: 1rem;

color: #666;

}

.message-box button {

margin-top: 1rem;

background-color: #007bff;

}

</style>

</head>

<body>

<!-- Button that user will click -->

<button id="alertButton">Click Me</button>

<!-- Custom message box for alert -->

<div id="messageBoxContainer" class="message-box-container">

    <div class="message-box">

        <h3>This page says</h3>

        <p>Button is clicked!</p>

        <button id="closeButton">OK</button>

    </div>

</div>

<!-- Link to external JavaScript file -->

<script src="button\_click.js"></script>

</body>

</html>

***Button\_click.js***

// script.js

// This file contains the JavaScript code for the button click alert

// Get the button and message box elements

const button = document.getElementById("alertButton");

const messageBoxContainer = document.getElementById("messageBoxContainer");

const closeButton = document.getElementById("closeButton");

// Define a function to show the message box

function showAlert() {

    messageBoxContainer.style.display = "flex";

}

// Define a function to hide the message box

function hideAlert() {

    messageBoxContainer.style.display = "none";

}

// Attach event listener to the button for 'click' event

button.addEventListener("click", showAlert);

// Attach event listener to the "OK" button in the message box to close it

closeButton.addEventListener("click", hideAlert);

// Close the message box if the user clicks outside of it

messageBoxContainer.addEventListener("click", (e) => {

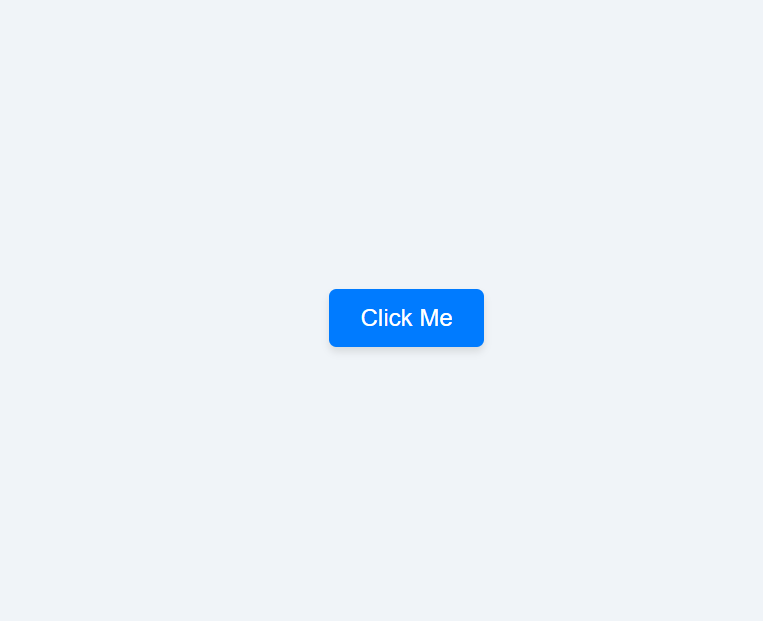
    if (e.target.id === "messageBoxContainer") {

        hideAlert();

    }

});

**Output**

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