1.Description: This HTML document demonstrates how to embed JavaScript both internally and externally within a web page. It includes a simple internal JavaScript function defined directly in the HTML, which is triggered by a button click to display an alert. Additionally, it attempts to reference an external JavaScript file using the <script> tag; however, the syntax used for linking the external file is incorrect, which would prevent the external function from executing. The correct method requires placing the src attribute within the opening <script> tag. This example illustrates the structural approach to integrating JavaScript but contains a common error in external script referencing.

Program:

<!DOCTYPE html>

<head>

<meta charset="UTF-8">

<title>

JavaScript Embedding Example

</title>

<!---External JavaScript-->

<script>src="script.js"</script>

</head>

<body>

<h1>Welcome to JavaScript Demo</h1>

<button onclick="internalfunction()">Run Internal JS</button>

<button onclick="externalfunction()">Run External JS</button>

<!---Internal JavaScript-->

<script>

function internalfunction(){

alert("Hello from internal JavaScript!")

}

</script>

</body>

2.Description: This HTML page demonstrates different JavaScript output methods through interactive buttons. It includes four buttons, each triggering a JavaScript function that showcases a specific way to output content:

1. **Alert Box** – Displays a popup message using a browser alert.
2. **Console Log** – Sends a message to the browser's developer console.
3. **Document Write** – Writes content directly to the HTML document.
4. **DOM Manipulation** – Dynamically updates part of the web page by modifying the DOM.

**Program**:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<title>JavaScript Output Methods</title>

<style>

body { font-family: Arial, sans-serif; padding: 20px; }

#outputArea { margin-top: 20px; padding: 10px; border: 1px solid #ccc; }

</style>

</head>

<body>

<h1>JavaScript Output Methods</h1>

<button onclick="showAlert()">Show Alert</button>

<button onclick="logToConsole()">Log to Console</button>

<button onclick="writeToDocument()">Write to Document</button>

<button onclick="updateDOM()">Update DOM</button>

<div id="outputArea">Output will appear here...</div>

<script>

// 1. Alert box

function showAlert() {

alert("This is an alert box!");

}

// 2. Console log

function logToConsole() {

console.log("This message is logged to the console.");

}

// 3. Document write

function writeToDocument() {

document.write("This text is written directly to the document.");

}

// 4. DOM manipulation

function updateDOM() {

document.getElementById("outputArea").innerText = "This text was inserted using DOM manipulation.";

}

</script>

</body>

</html>

3.Description: This web page is titled **"JavaScript Input Methods"** and shows how users can provide input through different UI components. The interface consists of:

**1. Text Input Field**

* **Label:** "Enter your name"
* **Input Type:** text
* **Button:** "Submit name"
* **Function Called:** getinputfromfeild()
* **Purpose:** Retrieves text entered by the user and displays it in the #output element.

**2. Prompt Box**

* **Button:** "Enter age (prompt)"
* **Function Called:** getInputFromPrompt()
* **Purpose:** Opens a browser prompt() asking for the user's age and shows it in the output.

**3. Form Input**

* **Label:** "Enter your email"
* **Input Type:** email
* **Button:** "Submit email"
* **Function Called on Form Submit:** getInputFromForm(event)
* **Purpose:** Prevents page reload and gets the value from the email input, then shows it in the output area.

**4. Dropdown Selection**

* **Label:** "Select your country"
* **Element Type:** select dropdown with three options — India, USA, Japan
* **Button:** "Submit country"
* **Function Called:** getInputFromDropdown()
* **Purpose:** Retrieves selected value from the dropdown and displays it.

**5. Output Area**

* <div id="output"> is used to display the result from each input method.

Program:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset ="UTF-8">

<title>JavaScript Input Methods</title>

<style>

body{ font-family: Arial,sans-serif;padding:20px;}

input,button {margin: 10px 0;display: block;}

#output {margin-top: 20px;font-weight: bold; }

</style>

</head>

<body>

<h1>Ways to Take input in Javascript</h1>

<!--1.Text input Feild-->

<label>enter your name:</label>

<input type="text" id="nameinput">

<button onclick="getinputfromfeild()">submit name</button>

<!--2.prompt box-->

<button onclick="getinputfromprompt()">enter age (prompt)</button

<!--3.Form input-->

<form onsubmit="getinputfromform(event)">

<lebel>Enter your email:</label>

<input type="email" id="emailinput">

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

</form>

<!--4.Dropdown selection-->

<label>select your country:</label>

<select id="country select">

<option value="India">India</option>

<option value="USA">USA</option><option value="Japan">Japan</option>

</select>

<button onclick="getinputfromDowndrop()">submit country

<script>

//1.input from text feild

function getinputfromfeild(){

const name=document.getElementByld("nameinput").value;

document.getElementById("output").innerText = "Name: " + name;

}

// 2. Input from prompt box

function getInputFromPrompt() {

const age = prompt("Please enter your age:");

document.getElementById("output").innerText = "Age: " + age;

}

// 3. Input from form

function getInputFromForm(event) {

event.preventDefault(); // Prevent page reload

const email = document.getElementById("emailinput").value;

document.getElementById("output").innerText = "Email: " + email;

}

//4.Input from dropdown

function getInputFromDropdown() {

const country = document.getElementById("countrySelect").value;

document.getElementById("output").innerText="Country: " + country;

}

</script>

</body>

</html>

4.Description:**1. Title and Heading**

* The page is titled **"Voter Eligibility Check"**.
* Displays a heading: **"Voter Eligibility Checker"**.

**2. Button**

* **Button Text:** Check Eligibility
* **On Click:** Calls the checkVoter() JavaScript function to prompt user input and display the result.

**3. JavaScript Function: checkVoter()**

* **Prompts the user** to enter:
  + Their **name**
  + Their **age**
* **Validates the input**:
  + Checks if either field is empty or canceled.
* **Processes input**:Sets eligibility status:
  + - "Eligible to vote" if age ≥ 18
    - "Not eligible to vote" otherwise
* **Outputs the result** in a well-formatted **HTML table** inside the #result <div>. The table includes:
  + **Name**
  + **Age**
  + **Eligibility status**

**4. Styling**

* Uses **internal CSS** to style the page and table:
  + Sets font to Arial, with padding.
  + Styles the table with borders and cell padding.
  + Table header has a **blue background** with **white text**.

Program:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<title>Voter Eligibility Check</title>

<style>

body {

font-family: Arial, sans-serif;

padding: 20px;

}

table {

border-collapse: collapse;

width: 50%;

margin-top: 20px;

}

th, td {

border: 1px solid #333;

padding: 10px;

text-align: center;

}

th {

background-color: blue;

color: white;

}

</style>

</head>

<body>

<h1>Voter Eligibility Checker</h1>

<button onclick="checkVoter()">Check Eligibility</button>

<div id="result"></div>

<script>

function checkVoter() {

const name = prompt("Enter your name:");

const age = prompt("Enter your age:");

if (name == null || age == null || name.trim() === "" || isNaN(age)) {

alert("Invalid input. Please try again.");

return;

}

const ageNum = parseInt(age);

const eligibility = ageNum >= 18 ? "Eligible to vote" : "Not eligible to vote";

const tableHTML = `

<table>

<tr>

<th>Name</th>

<th>Age</th>

<th>Eligibility</th>

</tr>

<tr>

<td>${name}</td>

<td>${ageNum}</td>

<td>${eligibility}</td>

</tr>

</table>

document.getElementById("result").innerHTML = tableHTML;

}

</script>

</body>

</html>