



**FACULTY OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY**

**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**SEMESTER 1 2024/2025**

**BIC21203 WEB DEVELOPMENT**

**SECTION 4**

**LAB 4: CLIENT-SIDE SCRIPTING**

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**Lab #4:**  
**CLIENT-SIDE SCRIPTING**

<b>Topic</b>	Web page development using HTML and Scripting (e.g. JavaScript)
<b>Domain of Learning</b>	Psychomotor (P2: Set; P3: Guided Respond; P4: Mechanism)
<b>Learning objective</b>	<ol style="list-style-type: none"><li>1. To evaluate the response in order to solve the problem as required. (P2)</li><li>2. To evaluate the skill how the web page is developed whereas using the code/tags correctly. (P3)</li><li>3. To evaluate value added of creativity/knowledge/skill in web page development. (P4)</li></ol>
<b>Lab activity objective</b>	To use the combination of HTML tags, CSS and scripts properly based on the suitable requirement of case study.

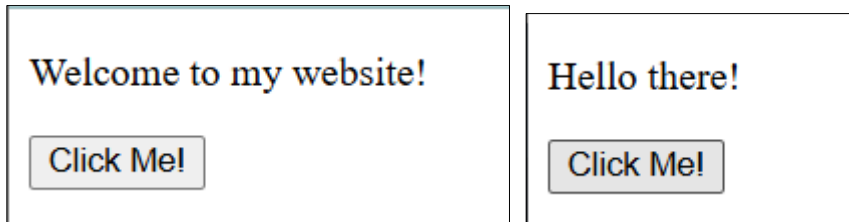
**Instruction: Answer all questions. Write your answer and screenshot the output in Microsoft Word. Submit through Author in PDF format.**

1. Write an HTML with JavaScript statements to change the content of the <p> to “Hello there!”.

```
<div id="myElement">
  <p>Welcome to my website!</p>
</div>
```

**Code:**

```
<> question1.html > ...
1  <!DOCTYPE html>
2  <html>
3  <head>
4  |   <title>Change Content</title>
5  </head>
6  <body>
7  |   <div id="myElement">
8  |   |   <p id="text">Welcome to my website!</p>
9  |   </div>
10 |   <button onclick="changeContent()">Click Me!</button>
11 |
12 |   <script>
13 |   |   function changeContent() {
14 |   |   |   document.getElementById("text").innerHTML = "Hello there!";
15 |   |   }
16 |   </script>
17 </body>
18 </html>
```

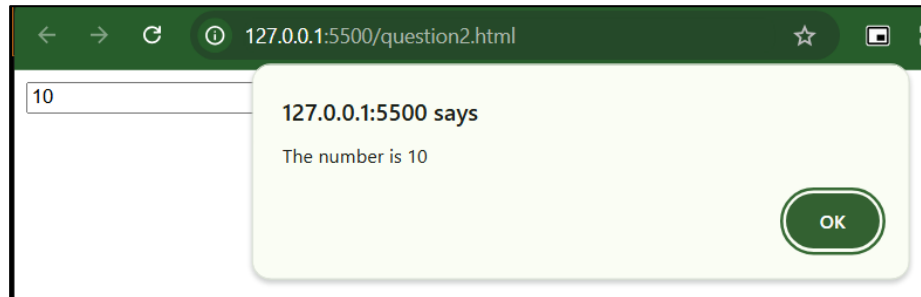
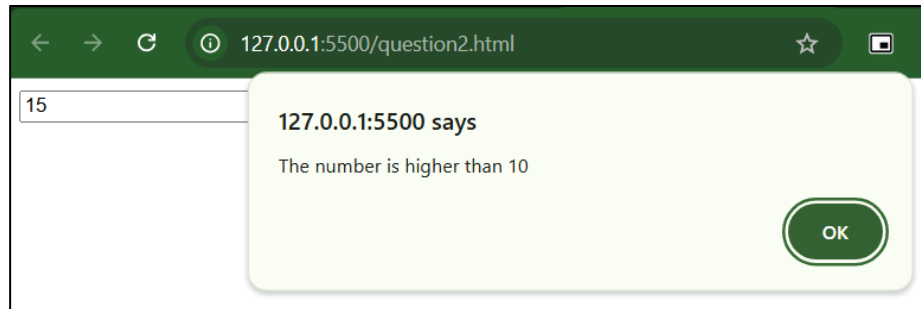
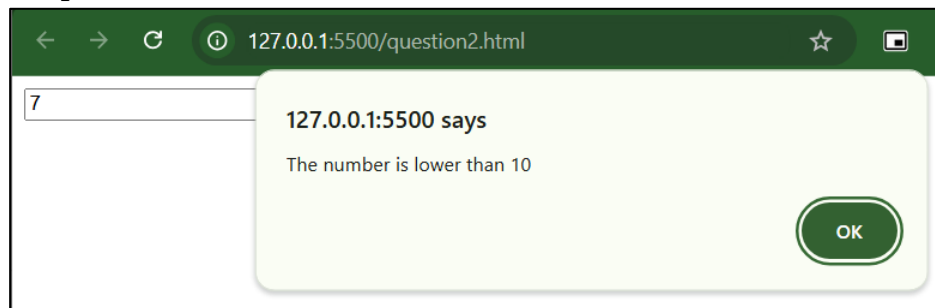
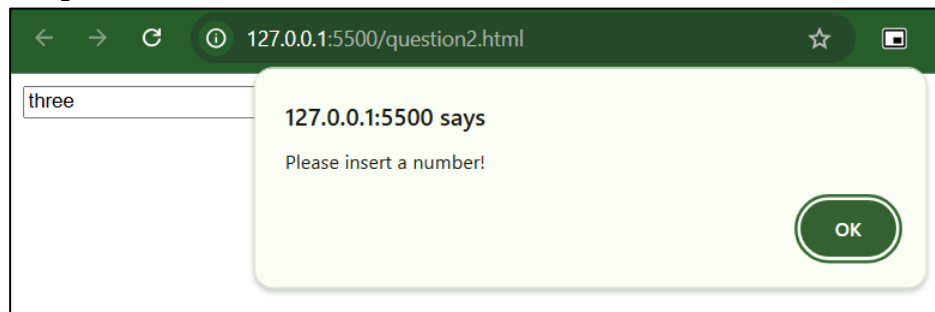
**Output:**

2. Based on the HTML code below, write an HTML with a JavaScript function that uses if else condition to validate if the number entered is lower or higher than 10. If it is lower than 10, then make an alert of “The number is lower than 10”, otherwise “The number is higher than 10”. If the user entered other than numbers (eg:alphabets), alert “Please insert a number!”.

```
<input type="text" id="userInput" placeholder="Enter a number">
<button onclick="checkInput()">Check</button>
```

**Code:**

```
<> question2.html > ...
1  <!DOCTYPE html>
2  <html>
3  <head>
4  |   <title>Number Validator</title>
5  </head>
6  <body>
7  |   <input type="text" id="userInput" placeholder="Enter a number">
8  |   <button onclick="checkInput()">Check</button>
9
10 <script>
11 |   function checkInput() {
12 |       const input = document.getElementById("userInput").value;
13 |       if (isNaN(input)) {
14 |           alert("Please insert a number!");
15 |       } else if (input == 10) {
16 |           alert("The number is 10");
17 |       } else if (input < 10) {
18 |           alert("The number is lower than 10");
19 |       } else {
20 |           alert("The number is higher than 10");
21 |       }
22 |   }
23 </script>
24 </body>
25 </html>
```

**Output:****i. If input is 10:****ii. If input is more than 10:****iii. If input is less than 10:****iv. If input is invalid:**

3. Complete the JavaScript code below to produce the following output. Write your answer in a complete HTML code.

```
<p id="demo"></p>

<script>
  let text = "";

  for (let i = 0; //your answer) {
    text += "The number is " //your answer
  }

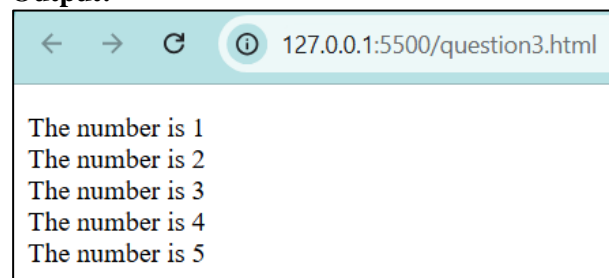
  document.getElementById("demo").innerHTML = text;
</script>
```

**Output:**

The number is 1  
The number is 2  
The number is 3  
The number is 4  
The number is 5

**Code:**

```
<> question3.html > ...
1  <!DOCTYPE html>
2  <html>
3  <head>
4  |   <title>For Loop Example</title>
5  </head>
6  <body>
7  |   <p id="demo"></p>
8
9  |   <script>
10 |       let text = "";
11 |       for (let i = 1; i <= 5; i++) {
12 |         text += "The number is " + i + "<br>";
13 |       }
14 |       document.getElementById("demo").innerHTML = text;
15 |     </script>
16 </body>
17 </html>
```

**Output:**

127.0.0.1:5500/question3.html

The number is 1  
The number is 2  
The number is 3  
The number is 4  
The number is 5

4. Write an HTML code with JavaScript that includes a button to toggle the background color of a <div> element between red and blue each time the button is clicked.

```
<div id="colorBox" style="width: 200px; height: 100px; background-color: red;"></div>  
<button onclick="toggleColor()">Toggle Color</button>
```

**Code:**

```
question4.html > ...  
1  <!DOCTYPE html>  
2  <html>  
3  <head>  
4  |   <title>Toggle Color</title>  
5  </head>  
6  <body>  
7  |   <div id="colorBox" style="width: 200px; height: 100px; background-color: red;"></div>  
8  |   <button onclick="toggleColor()">Toggle Color</button>  
9  |  
10 |   <script>  
11 |       function toggleColor() {  
12 |           const colorBox = document.getElementById("colorBox");  
13 |           if (colorBox.style.backgroundColor === "red") {  
14 |               colorBox.style.backgroundColor = "blue";  
15 |           } else {  
16 |               colorBox.style.backgroundColor = "red";  
17 |           }  
18 |       }  
19 |   </script>  
20 </body>  
21 </html>
```

**Output:**