



WEB-BASED INTERFACE DESIGN

(CSF3133)

Lab Report 6

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Group: K4

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6.3 Basic Javascript

My First JS!

My First Java Script

6.4 getElementById()

Before click button:

What Can JavaScript Do?

JavaScript can change **HTML** content.

Click Me

After click button:

What Can JavaScript Do?

Hello JavaScript!

Click Me

6.5 Data and Time

Click me to display Date and Time

Click me to display Date and Time

Wed Dec 03 2025 08:58:44 GMT+0800 (Malaysia Time)

Click me to display Date and Time

Click me to display Date and Time

Wed Dec 03 2025 09:09:46 GMT+0800 (Malaysia Time)

6.6 Change HTML Attribute Values

Turn on the light:

What Can JavaScript \index{JavaScript} Do?

JavaScript \index{JavaScript} can change HTML attribute values.

In this case, JavaScript \index{JavaScript} changes the value of the 'src'(source) attribute of an image.



Turn on the light

Turn off the light

Turn off the light:

What Can JavaScript \index{JavaScript} Do?

JavaScript \index{JavaScript} can change HTML attribute values.

In this case, JavaScript \index{JavaScript} changes the value of the 'src'(source) attribute of an image.



Turn on the light

Turn off the light

6.7 Link to file JavaScript

6.7.3 External References

Click the Button to See the Message

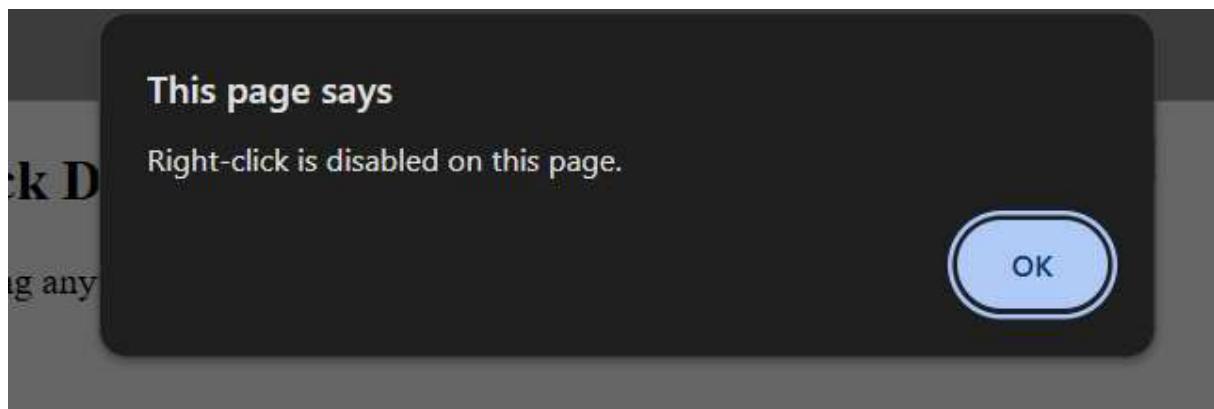
Click Me



6.8 Working with Events

Right-Click Disabled

Try right-clicking anywhere on this page.

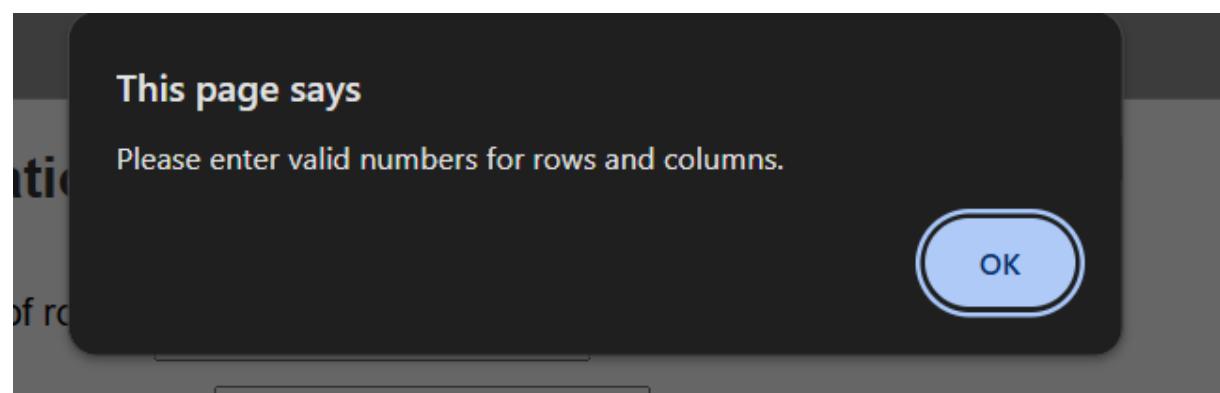


6.9 Multiplication Table

Multiplication Table Generator

Enter number of rows :

Enter number of columns :



Multiplication Table Generator

Enter number of rows :

Enter number of columns :

Multiplication Table Generator

Enter number of rows :

Enter number of columns :

1	2	3
2	4	6
3	6	9

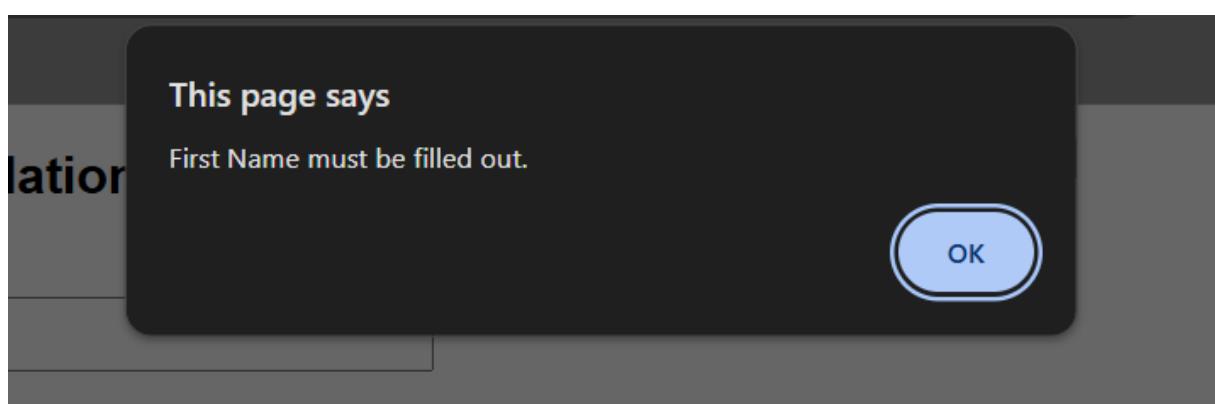
6.10 Client-side Validation

6.10.1 Form Validation

Form Validation Example

First Name:

Submit

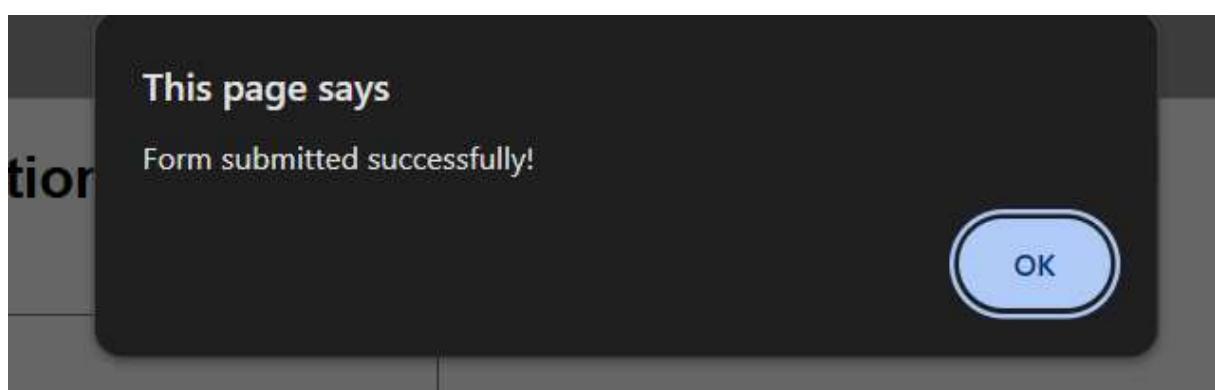


Form Validation Example

First Name:

Fatin|

Submit



6.10.2 Numeric Input Validation

Numeric Input Validation Example

Enter Your Age:

Submit

This page says

Age field cannot be empty.

OK

Numeric Input Validation Example

Enter Your Age:

Submit

This page says

Please enter a valid numeric value.

OK

Numeric Input Validation Example

Enter Your Age:

Submit

This page says

Please enter a number between 1 and 120.

OK

Numeric Input Validation Example

Enter Your Age:

Submit

This page says

Form submitted successfully!

OK

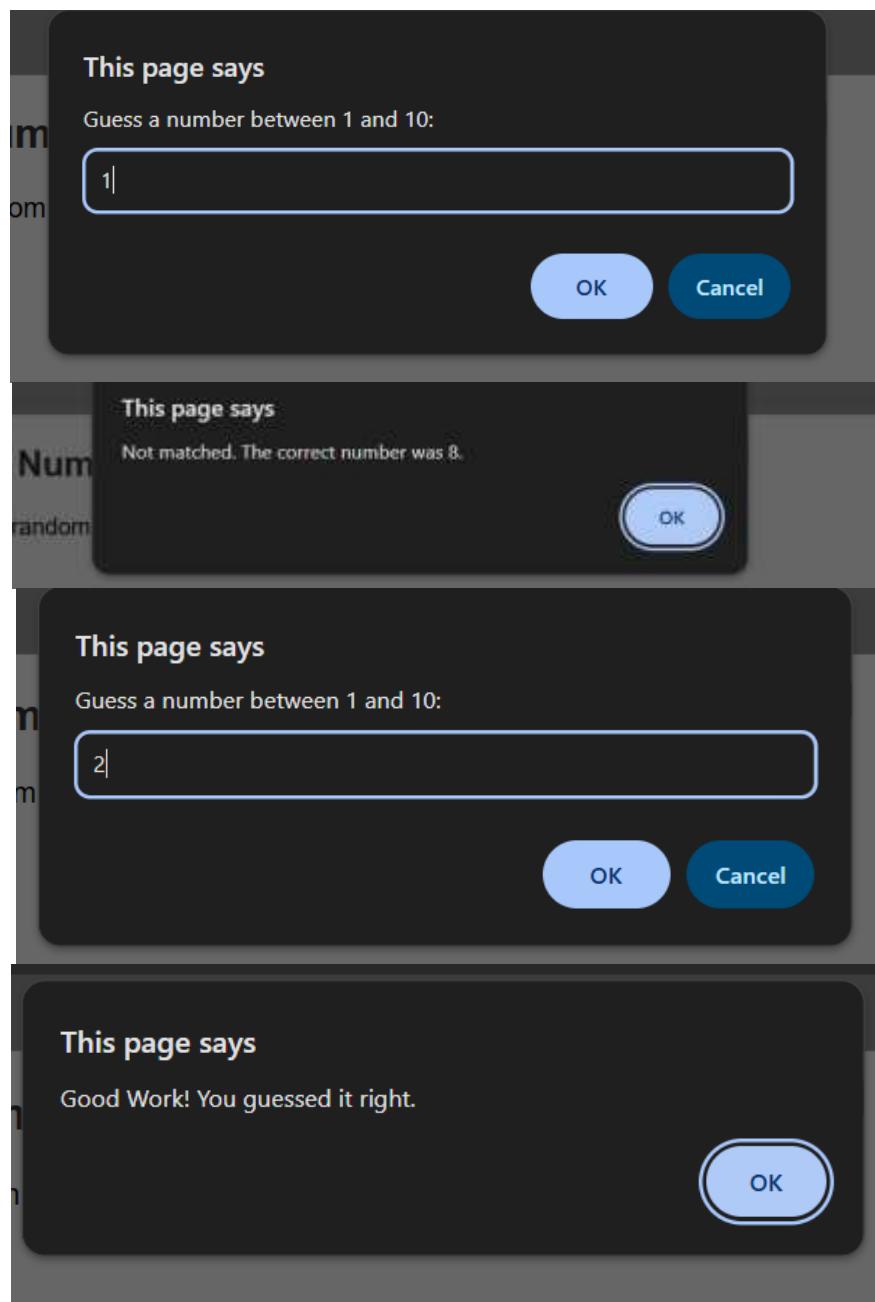
6.11 Math Function

6.11.1 Guess a Number

Guess the Number Game

Try to guess the random number between 1 and 10!

Start Game



6.12 Lab Exercise 6

6.12.1 Quiz Application

index.html

```
File Edit Format View Insert  
index.html  
about:blank  
  
<html lang="en">  
  <head>  
    <meta charset="UTF-8">  
    <meta name="viewport" content="width=device-width, initial-scale=1.0">  
    <title>Web Development Quiz</title>  
    <link rel="stylesheet" href="style.css">  
  </head>  
  <body>  
    <h1>Web Development Quiz</h1>  
    </body>  
  
<div id="quiz-container">  
  <div id="timer">Time left: <span id="time">55s</span></div>  
  <div id="question-container">  
    <h2 id="question"></h2>  
    <form id="options"></form>  
  </div>  
  <div id="feedback"></div>  
  <button id="submit-btn">Submit Answer</button>  
  <button id="next-btn" style="display:none;">Next Question</button>  
  <div id="score">  
    <p>Score: <span id="score">0</span>/10</p>  
  </div>  
</div>  
<script src="script.js"></script>  
</body>  
</html>
```

style.css

```
File Edit Format View Insert  
style.css  
about:blank  
  
body {  
  font-family: Arial, sans-serif;  
  background: linear-gradient(to bottom, #33bfff, #1e99ff);  
  margin: 0;  
  padding: 0px 10px;  
  color: white;  
  text-align: center;  
}  
  
header {  
  font-size: 20px;  
  margin-bottom: 30px;  
}  
  
#quiz-container {  
  background: white;  
  color: #33bfff;  
  width: 40%;  
  margin: auto;  
  padding: 20px;  
  border-radius: 10px;  
  box-shadow: 0 0 20px rgba(0,0,0,0.2);  
}  
  
.timer {  
  font-size: 20px;  
  font-weight: bold;  
  color: #33bfff;  
}  
  
.question {  
  font-size: 20px;  
  margin-bottom: 20px;  
}  
  
.options label {  
  display: block;  
  text-align: left;  
  padding: 10px;  
  margin: 0px 0;  
  border-radius: 10px;  
  background: #eef3ff;
```

```
    cursor: pointers;

  #options input {
    margin-right: 8px;
  }

  button {
    margin-top: 20px;
    padding: 10px 25px;
    font-size: 18px;
    border: none;
    border-radius: 8px;
    cursor: pointers;
  }

  .submit-btn {
    background-color: #e6f2ff;
    color: white;
  }

  .next-btn {
    background-color: #e6f2ff;
    color: white;
  }

  #feedback {
    font-size: 20px;
    margin-top: 15px;
    width: 30px;
  }
```

script.js

```
let index = 0;
let score = 0;
let timer;
let timeoutLeft = 15;

function shuffleQuestions() {
    questions.sort(() => Math.random() - 0.5);
}

function startTimer() {
    timeoutLeft = 15;
    document.getElementById("time").textContent = timeoutLeft;

    timer = setInterval(() => {
        timeoutLeft--;
        document.getElementById("time").textContent = timeoutLeft;

        if (timeoutLeft === 0) {
            clearInterval(timer);
            checkAnswer(null);
        }
    }, 1000);
}

function displayQuestion() {
    const q = questions[index];
    document.getElementById("question").textContent = q.question;

    let html = "";
    q.options.forEach(opt => {

```

```

        html += `
            <label>
                <input type="radio" name="option" value="${opt}>
            </label>
        `);
    });

    document.getElementById("options").innerHTML = html;
    document.getElementById("feedback").textContent = ``;

    function checkAnswer(selected) {
        clearInterval(timer);

        const correct = questions[index].answer;

        if (selected === correct) {
            document.getElementById("feedback").textContent = "Correct!";
            document.getElementById("feedback").style.color = "green";
            score++;
        } else {
            document.getElementById("feedback").textContent = "Incorrect!";
            document.getElementById("feedback").style.color = "red";
        }

        document.getElementById("score").textContent = score;

        document.getElementById("submit-btn").style.display = "none";
        document.getElementById("next-btn").style.display = "inline-block";
    }

    document.getElementById("submit-btn").addEventListener("click", () => {
        let selectedOption = document.querySelector('input[name="option"]:checked');

        if (!selectedOption) {
            alert("Please select an answer!");
            return;
        }

        checkAnswer(selectedOption.value);
    });

    document.getElementById("next-btn").addEventListener("click", () => {
        index++;

        if (index >= questions.length) {
            alert(`Quiz complete! Your score: ${score}/${questions.length}`);
            location.reload(); // Restart quiz
            return;
        }

        document.getElementById("submit-btn").style.display = "inline-block";
        document.getElementById("next-btn").style.display = "none";

        displayQuestion();
        startTimer();
    });
}

function startQuiz() {
    shuffleQuestions();
    displayQuestion();
    startTimer();
}

startQuiz();

```

Output

Web Development Quiz

Time Left: 2s

What does HTML stand for?

- HyperText Markup Language
- Hyper Trainer Markup Loop
- HighText Machine Language
- Hyperlink and Text Management Language

Correct!

[Submit Answer](#) [Next Question](#)

Score: 1

Web Development Quiz

Time Left: 13s

Which tag is used to link an external CSS file?

- <style>
- <css>
- <link>
- <meta>

Correct!

[Submit Answer](#)

[Next Question](#)

Score: 2

Web Development Quiz

Time Left: 12s

Which CSS property controls text size?

- font-weight
- font-size
- text-size
- text-style

Correct!

[Submit Answer](#)

[Next Question](#)

Score: 3

Web Development Quiz

Time Left: 13s

Which symbol is used for comments in JavaScript?

<!... -->

//

**

##

Correct!

[Submit Answer](#)

[Next Question](#)

Score: 4

Web Development Quiz

Time Left: 13s

Where should JavaScript be placed for best performance?

- Inside <head>
- Top of <body>
- Bottom of <body>
- Before <!DOCTYPE html>

Correct!

[Submit Answer](#)

[Next Question](#)

Score: 5

Web Development Quiz

Quiz Completed!

Your final score is 5 / 5

Score: 5