



WEB-BASED INTERFACE DESIGN

(CSF3133)

LAB REPORT 3

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Program: Computer Science (Software Engineering)

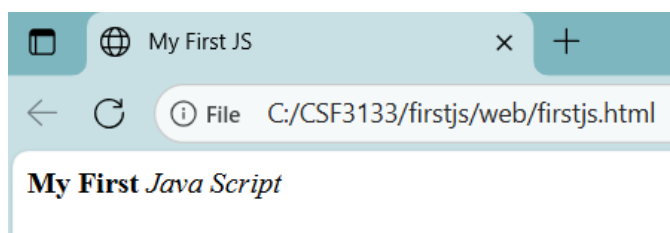
Lecturer: Dr. Wan Nural

Lab Module 6

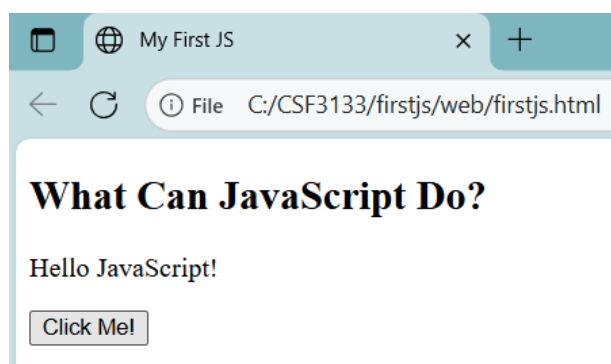
6.3 Basic Javascript



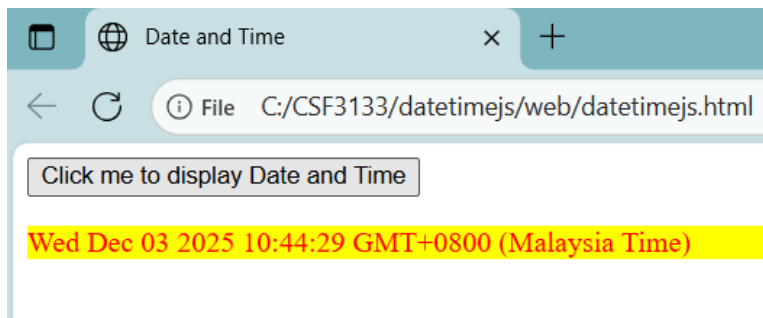
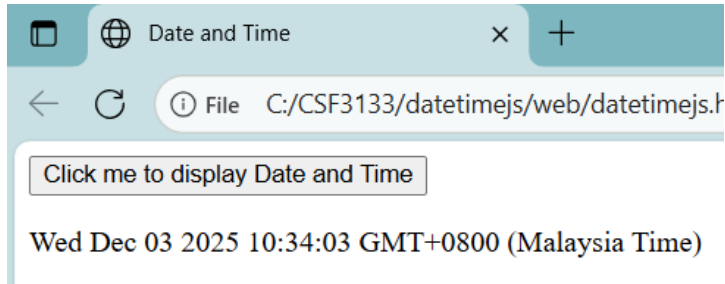
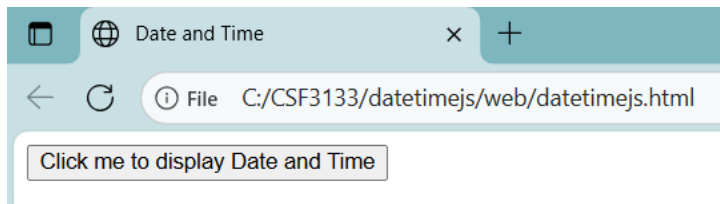
The result after changing the statement



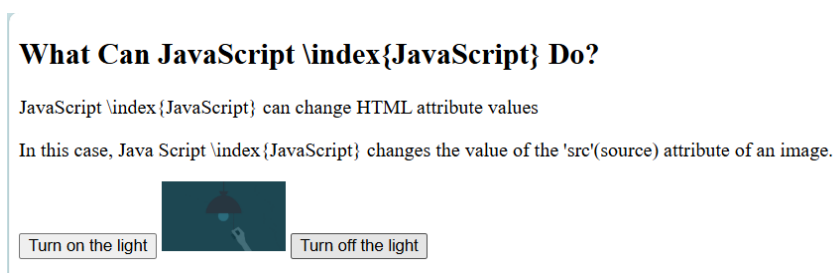
6.4 getElementById()



6.5 Date and Time

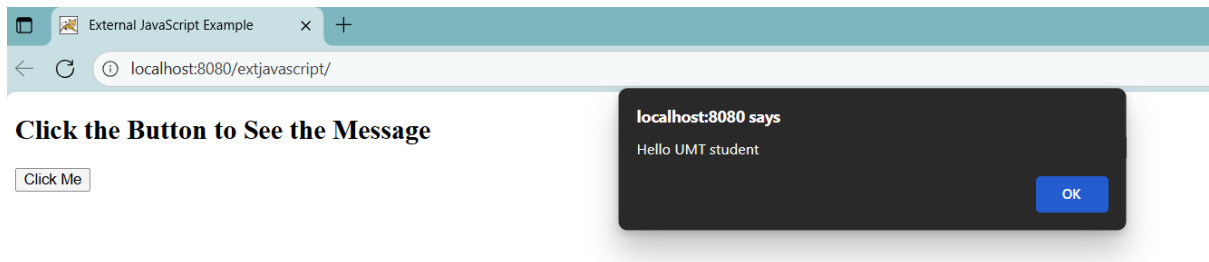


6.6 Change HTML Attribute Values

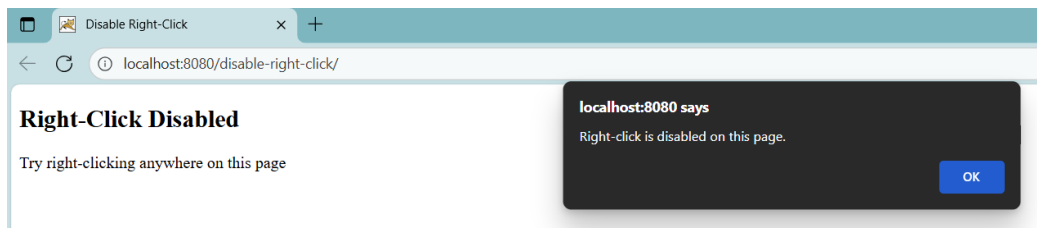


6.7 External JavaScript Advantages

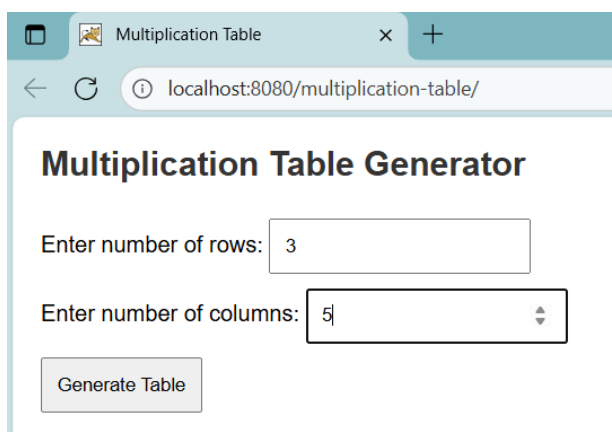
6.7.3 External References



6.8 Working with events



6.9 Multiplication Table



Multiplication Table Generator

Enter number of rows:

Enter number of columns:

1	2	3	4	5
2	4	6	8	10
3	6	9	12	15

6.10 Client-side Validation

6.10.1 Form Validation

Form Validation

localhost:8080/form-validation/

Form Validation Example

First Name:

localhost:8080 says
First Name must be filled out.

Form Validation

localhost:8080/form-validation/?fname=farisha

Form Validation Example

First Name:

6.10.2 Numeric Input Validation

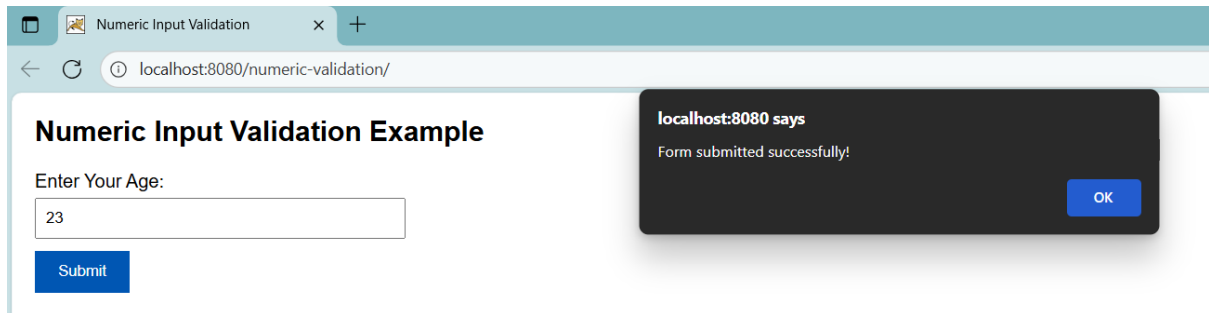
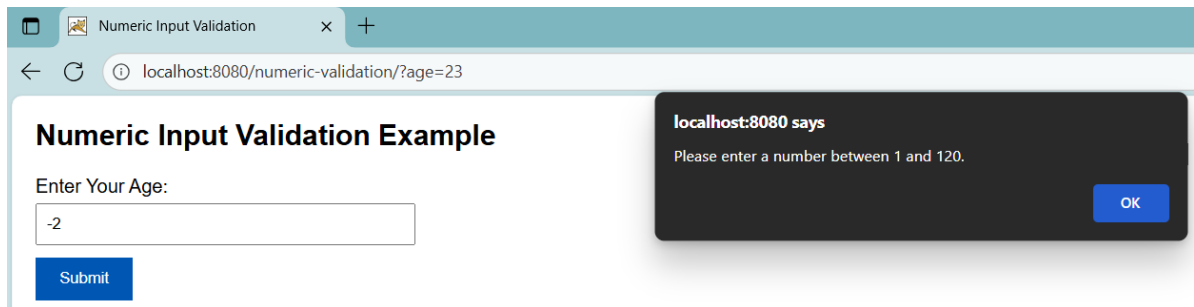
Numeric Input Validation

localhost:8080/numeric-validation/?age=23

Numeric Input Validation Example

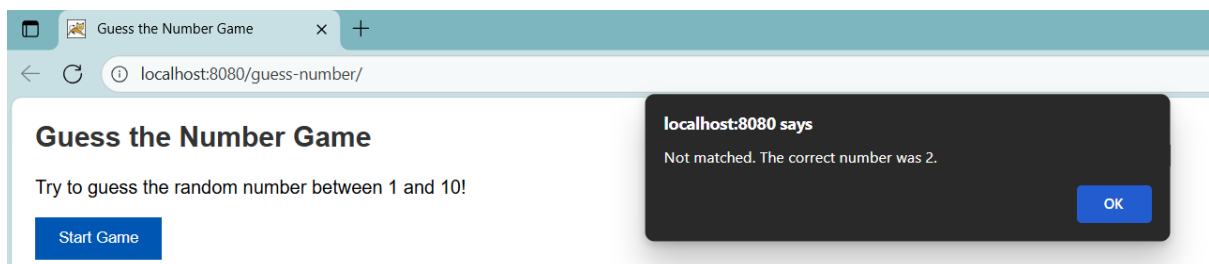
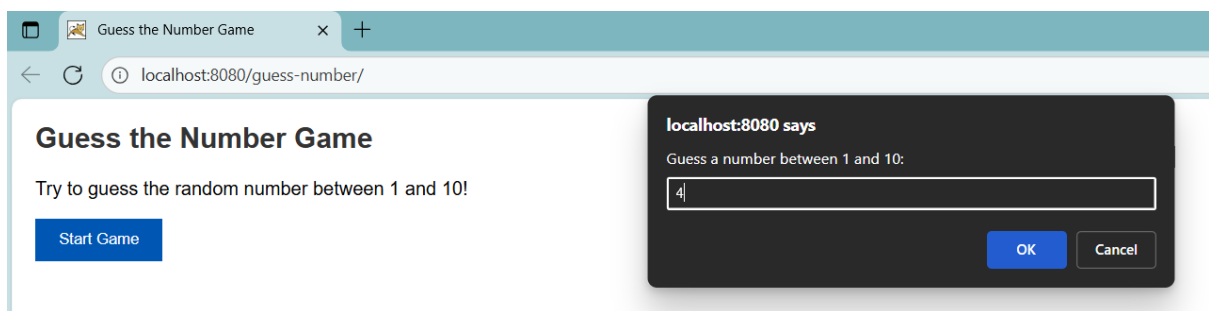
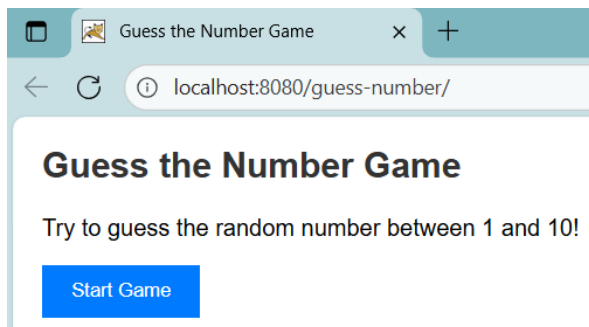
Enter Your Age:

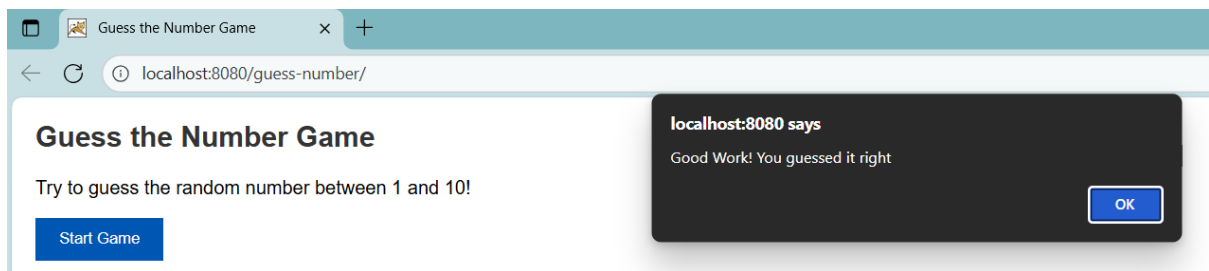
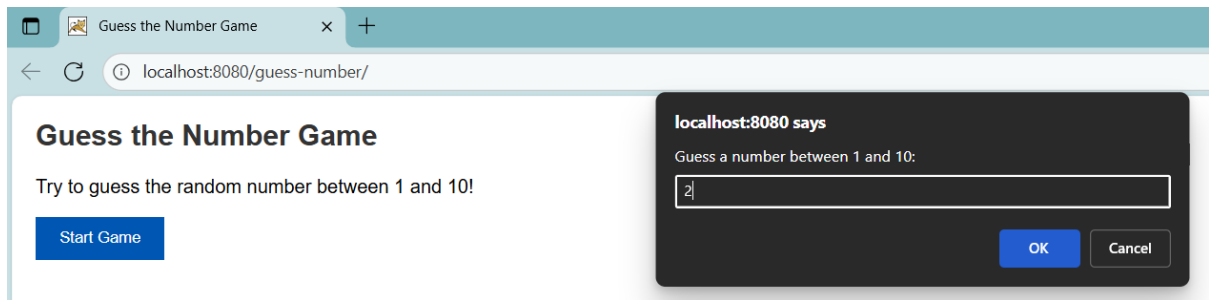
localhost:8080 says
Please enter a valid numeric value.



6.11 Math Function

6.11.1 Guess a Number





Lab Exercise 6

Index.html

```
<!DOCTYPE html>
<!--
Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
Click nbfs://nbhost/SystemFileSystem/Templates/JSP\_Servlet/Html.html to edit this template
-->
<html>
  <head>
    <title>Quiz Application</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link rel="stylesheet" href="style.css">
  </head>
  <body>

    <header>
      <h1>Quiz Application</h1>
      <p>Test your knowledge!</p>
    </header>

    <button id="startBtn" onclick="startQuiz()">Start Quiz</button>

    <section class="quiz-container">
      <div id="timer">Time Left: <span id="time">10</span> seconds</div>

      <h2 id="question">Question will appear here</h2>

      <div class="options">
        <button class="option" onclick="checkAnswer(0)" disabled></button>
        <button class="option" onclick="checkAnswer(1)" disabled></button>
        <button class="option" onclick="checkAnswer(2)" disabled></button>
        <button class="option" onclick="checkAnswer(3)" disabled></button>
      </div>

      <p id="feedback"></p>

      <button id="nextBtn" onclick="nextQuestion()">Next Question</button>
    </section>

    <footer>
      <p id="score">Score: 0</p>
    </footer>

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

Script.js

```
let questions = [
  {
    question: "What does HTML stand for?",
    options: ["HyperText Markup Language", "HighText Machine Language", "Hyperloop Machine Language", "None"],
    answer: 0
  },
  {
    question: "Which language styles web pages?",
    options: ["HTML", "CSS", "Java", "Python"],
    answer: 1
  },
  {
    question: "Which is used for web interactivity?",
    options: ["HTML", "CSS", "JavaScript", "PHP"],
    answer: 2
  },
  {
    question: "What symbol is used for ID in CSS?",
    options: [".", "#", "*", "&"],
    answer: 1
  }
];

let currentQuestion = 0;
let score = 0;
let time = 10;
let timer;

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



```

// Start timer
function startTimer() {
  clearInterval(timer);
  time = 10;
  document.getElementById("time").textContent = time;

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

    if (time == 0) {
      clearInterval(timer);
      showFeedback("🕒 Time is up!", "red");
      document.getElementById("nextBtn").style.display = "block";
      let buttons = document.getElementsByClassName("option");
      for (let btn of buttons) btn.disabled = true;
    }
  }, 1000);
}

// Display Question
function displayQuestion() {
  let q = questions[currentQuestion];
  document.getElementById("question").textContent = q.question;

  let buttons = document.getElementsByClassName("option");
  for (let i = 0; i < buttons.length; i++) {
    buttons[i].textContent = q.options[i];
    buttons[i].disabled = false;
  }

  document.getElementById("feedback").textContent = "";
  document.getElementById("nextBtn").style.display = "none";

  startTimer();
}

```

```

// Check answer
function checkAnswer(selected) {
  let correct = questions[currentQuestion].answer;
  let correctText = questions[currentQuestion].options[correct];
  let buttons = document.getElementsByClassName("option");

  for (let btn of buttons) btn.disabled = true;
  clearInterval(timer);

  if (selected === correct) {
    score++;
    showFeedback("✅ Correct!", "green");
  } else {
    showFeedback("❌ Wrong! The correct answer is: " + correctText, "red");
  }

  document.getElementById("score").textContent = "Score: " + score;
  document.getElementById("nextBtn").style.display = "block";
}

// Start quiz
function startQuiz() {
  currentQuestion = 0;
  score = 0;
  document.getElementById("score").textContent = "Score: 0";
  document.getElementById("startBtn").disabled = true;
  shuffleQuestions();
  displayQuestion();
}

```

```

// Next Question
function nextQuestion() {
    currentQuestion++;
    if (currentQuestion < questions.length) {
        displayQuestion();
    } else {
        endQuiz();
    }
}

// Show feedback
function showFeedback(text, color) {
    let fb = document.getElementById("feedback");
    fb.textContent = text;
    fb.style.color = color;
}

// End Quiz
function endQuiz() {
    document.querySelector(".quiz-container").innerHTML =
    `<h2>Quiz Finished!</h2>
    <p>Your final score is: ${score} / ${questions.length}</p>`;
}

```

Style.css

```

body {
    font-family: Arial, sans-serif;
    text-align: center;
    background-color: #bbf3fc;
}

header {
    background: #576bad;
    color: white;
    padding: 20px;
}

#startBtn {
    margin-top: 20px;
    padding: 12px 25px;
    font-size: 18px;
    background-color: #b300ff;
    color: white;
    border: none;
    border-radius: 8px;
    cursor: pointer;
}

#startBtn:hover {
    background-color: #e68900;
}

.quiz-container {
    background: white;
    width: 50%;
    margin: auto;
    padding: 20px;
    margin-top: 20px;
    border-radius: 10px;
}

```

```
.options {
  display: grid;
  grid-template-columns: auto auto;
  gap: 10px;
  margin: 15px 0;
}

.option {
  padding: 10px;
  background: #d6228e;
  color: white;
  border: none;
  cursor: pointer;
  border-radius: 5px;
}

.option:hover {
  background: #871c60;
}

#feedback {
  font-weight: bold;
  margin: 10px;
}

#nextBtn {
  padding: 10px;
  background: green;
  color: white;
  border: none;
  cursor: pointer;
  display: none;
}

#timer {
  font-size: 18px;
  color: red;
}
```

```
footer {
  margin-top: 20px;
  font-weight: bold;
}
```

Output:

