



**WEB BASED INTERFACE DESIGN
(CSF3133)**

Lab Report 6

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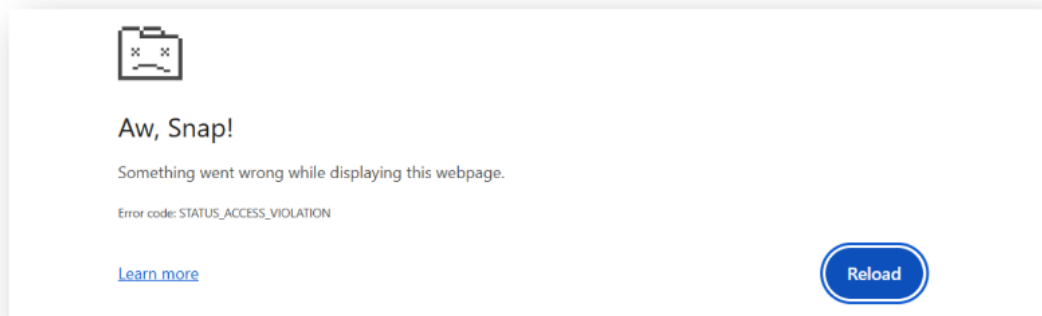
Group : K4

Programme : Computer Science (Software Engineering)

Demonstrator : Pn. Fatin Fatihah

6.3 basic Javascript

Before added `` and `<h1>` :



After added `` and `<h1>`:



6.4 getElementById()

Before click :

What Can JavaScript Do?

JavaScript can change HTML content.

Click Me!

After click :

What Can JavaScript Do?

Hello JavaScript!

Click Me!

6.5 Date and Time

Before click :

Click to Show Date and Time

Click me to display Date and Time

After click :

Click to Show Date and Time

Click me to display Date and Time

Wed Dec 03 2025 11:47:13 GMT+0800 (Malaysia Time)

Display + Style the Output :

Click to Show Date and Time

Click me to display Date and Time

Wed Dec 03 2025 11:49:33 GMT+0800 (Malaysia Time)

6.6 Change HTML attributes value

When click on the on button :

What Can JavaScript Do?

JavaScript can change HTML attribute values.

In this case, it changes the value of the `src` attribute of an image.



Turn on the light

Turn off the light

When click on the off button :

What Can JavaScript Do?

JavaScript can change HTML attribute values.

In this case, it changes the value of the `src` attribute of an image.

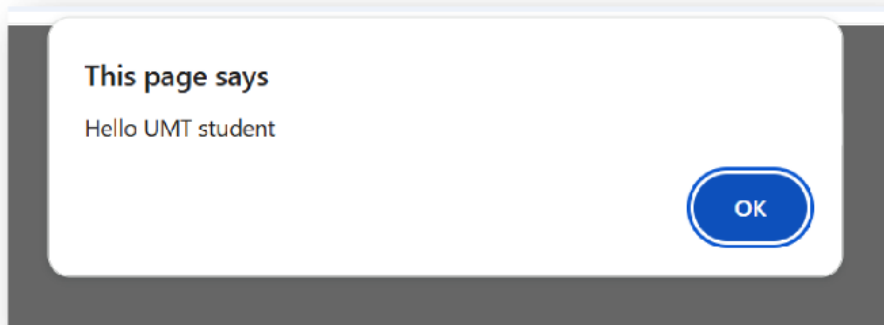


Turn on the light

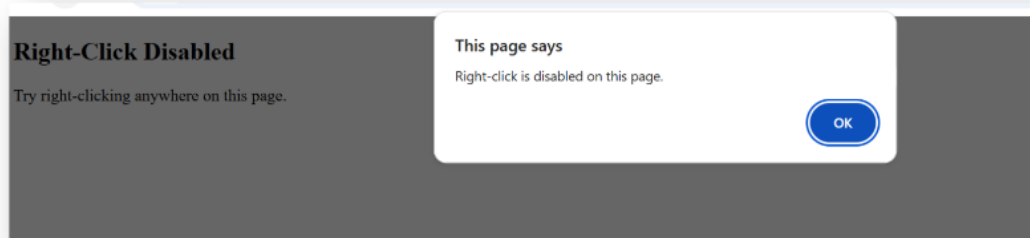
Turn off the light

6.7 Link to file Javascript

When I click 'click me' button :



6.8 Working with events



6.9 Multiplication Table

Multiplication Table Generator

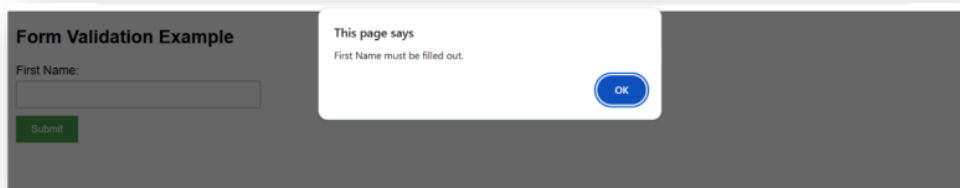
Enter number of rows:

Enter number of columns:

| | | | |
|---|---|---|----|
| 1 | 2 | 3 | 4 |
| 2 | 4 | 6 | 8 |
| 3 | 6 | 9 | 12 |

6.10 Client-side validation

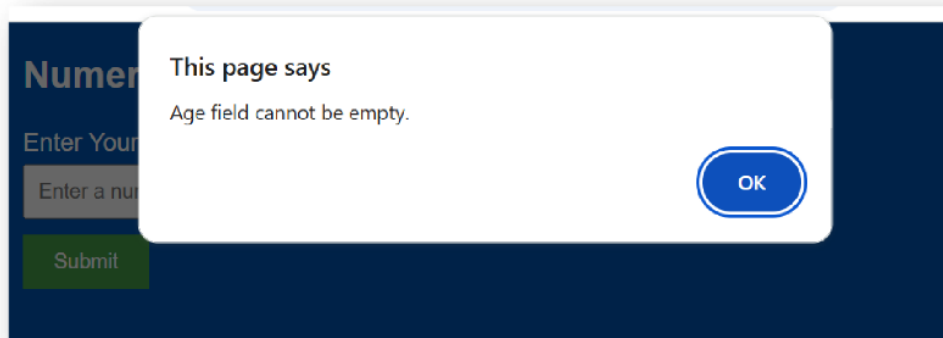
Form validation :



A screenshot of a web form titled "Form Validation Example". It features a text input field labeled "First Name:" and a green "Submit" button. A white modal dialog box is open, displaying the message "This page says" followed by "First Name must be filled out." and an "OK" button.

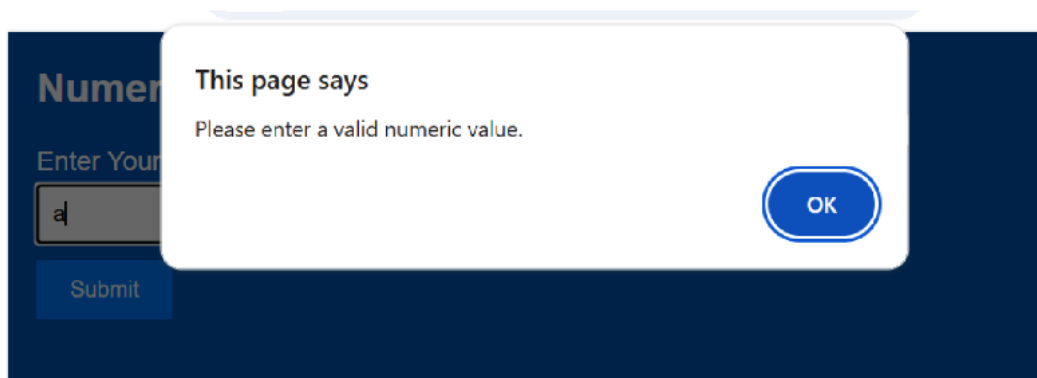
Numeric Input Validation :

- i. Leave the input field empty



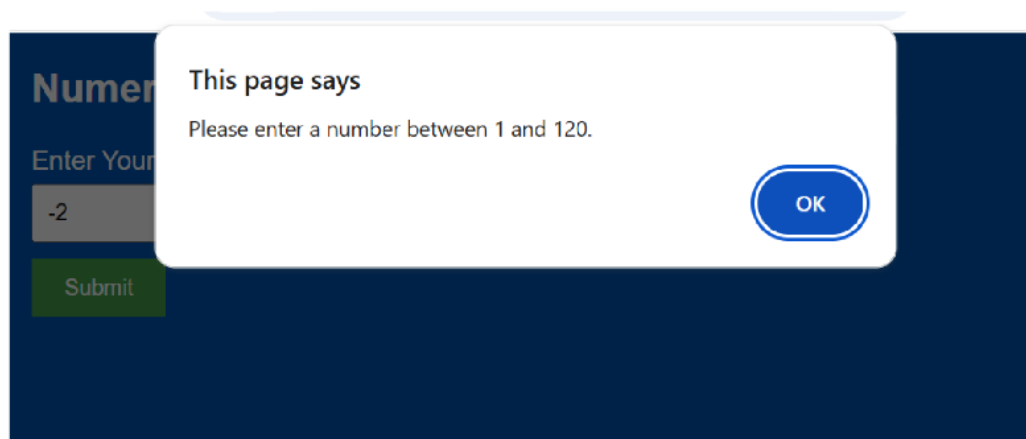
A screenshot of a web form titled "Numeric Input Validation". It features a text input field labeled "Enter Your Age" with placeholder text "Enter a numeric value" and a green "Submit" button. A white modal dialog box is open, displaying the message "This page says" followed by "Age field cannot be empty." and an "OK" button.

- ii. Non-numeric when I enter a

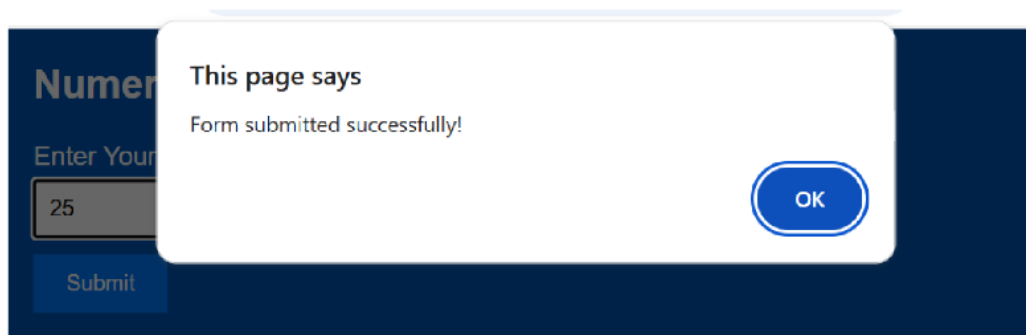


A screenshot of a web form titled "Numeric Input Validation". It features a text input field labeled "Enter Your Age" containing the character "a" and a green "Submit" button. A white modal dialog box is open, displaying the message "This page says" followed by "Please enter a valid numeric value." and an "OK" button.

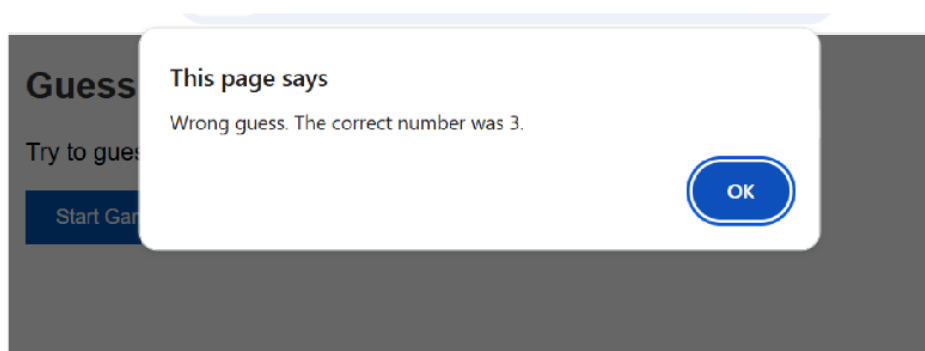
iii. When I put the number inside the range



iv. Enter a valid number



6.11 Math Function



Lab exercise

Questionn Array :

```
const questions = [
  {
    question: "What is the capital of Malaysia?",
    options: ["Kuala Lumpur", "Penang", "Johor Bahru", "Melaka"],
    answer: "Kuala Lumpur"
  },
  {
    question: "Which language is used for web styling?",
    options: ["HTML", "CSS", "JavaScript", "Python"],
    answer: "CSS"
  },
  {
    question: "What does JS stand for?",
    options: ["Java Source", "JavaScript", "Just Script", "Jumbo Style"],
    answer: "JavaScript"
  }
];
```

shuffleQuestions() :

```
let shuffledQuestions = [];
let currentQuestionIndex = 0;
let score = 0;
let timer;
let timeLeft = 30;

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

startTimer() :

```
function startTimer() {
  timeLeft = 30;
  document.getElementById("time").textContent = timeLeft;
  timer = setInterval(() => {
    timeLeft--;
    document.getElementById("time").textContent = timeLeft;
    if (timeLeft <= 0) {
      clearInterval(timer);
      checkAnswer(null); // No answer selected
    }
  }, 1000);
}
```

displayQuestion() :

```
function displayQuestion() {
  const questionObj = shuffledQuestions[currentQuestionIndex];
  document.getElementById("question").textContent = questionObj.question;
  const optionsList = document.getElementById("options");
  optionsList.innerHTML = "";

  questionObj.options.forEach(option => {
    const li = document.createElement("li");
    li.textContent = option;
    li.onclick = () => checkAnswer(option);
    optionsList.appendChild(li);
  });

  document.getElementById("feedback").textContent = "";
  startTimer();
}
```

checkAnswer() :

```
function checkAnswer(selectedOption) {
  clearInterval(timer);
  const correct = shuffledQuestions[currentQuestionIndex].answer;
  const feedback = document.getElementById("feedback");

  if (selectedOption === correct) {
    score++;
    feedback.textContent = "Correct!";
    feedback.style.color = "green";
  } else {
    feedback.textContent = `Wrong! Correct answer: ${correct}`;
    feedback.style.color = "red";
  }

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

nextQuestion() :

```
function nextQuestion() {
  currentQuestionIndex++;
  if (currentQuestionIndex < shuffledQuestions.length) {
    displayQuestion();
  } else {
    document.getElementById("quiz").innerHTML = '<h3>Quiz Finished!</h3><p>Your final score is ${score} out of ${shuffledQuestions.length}.
  }
}
```

startQuiz() :

```
function startQuiz() {
  shuffleQuestions();
  currentQuestionIndex = 0;
  score = 0;
  displayQuestion();
}

document.getElementById("next-btn").onclick = nextQuestion;
window.onload = startQuiz;
```

Output

Welcome to the Quiz!

Answer the questions before time runs out!

What is the capital of Malaysia?

Kuala Lumpur

Penang

Johor Bahru

Melaka

Time left: 23 seconds

Correct!

Next Question

Your Score: 1

Welcome to the Quiz!

Answer the questions before time runs out!

What does JS stand for?

Java Source

JavaScript

Just Script

Jumbo Style

Time left: 28 seconds

Correct!

Next Question

Your Score: 2

Welcome to the Quiz!

Answer the questions before time runs out!

Which language is used for web styling?

HTML

CSS

JavaScript

Python

Time left: 26 seconds

Wrong! Correct answer: CSS

Next Question

Your Score: 2

Welcome to the Quiz!

Answer the questions before time runs out!

Quiz Finished!

Your final score is 3 out of 3.

Your Score: 3