



FACULTY OF COMPUTER SCIENCE AND MATHEMATICS

WEB-BASED INTERFACE DESIGN

CSF3133

SEMESTER 1 SESSION 2025/2026

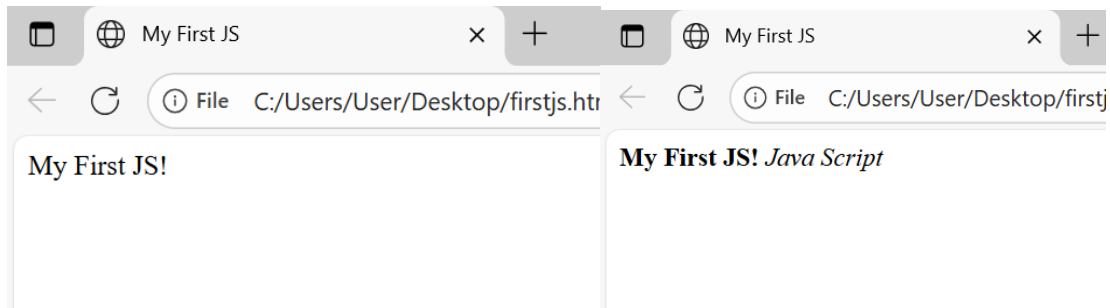
**BACHELOR OF COMPUTER SCIENCE (SOFTWARE ENGINEERING) WITH
HONOURS**

LAB MODULE 6

NAME	NO. MATRIC
NUR ALIYA FARHANI BINTI MOHD NASRI	S75663

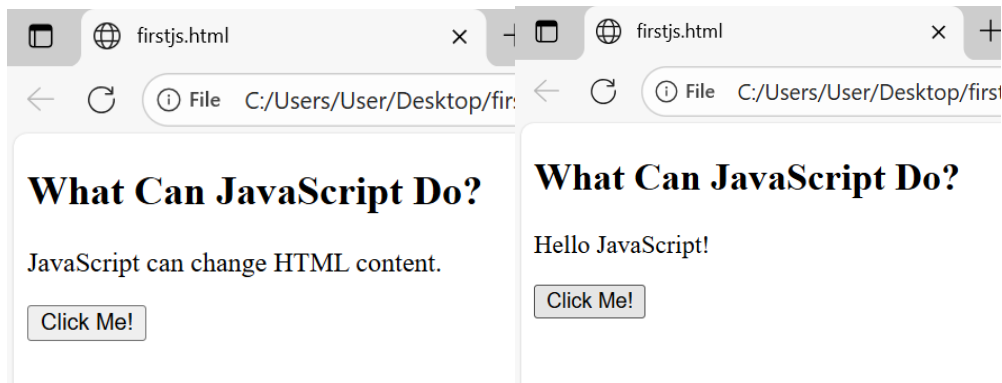
6.3 Basic Javascript

Output:



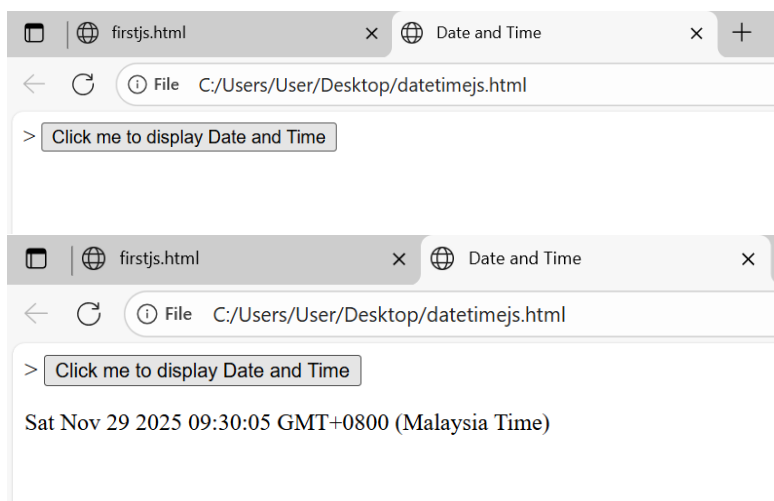
6.4 getElementById()

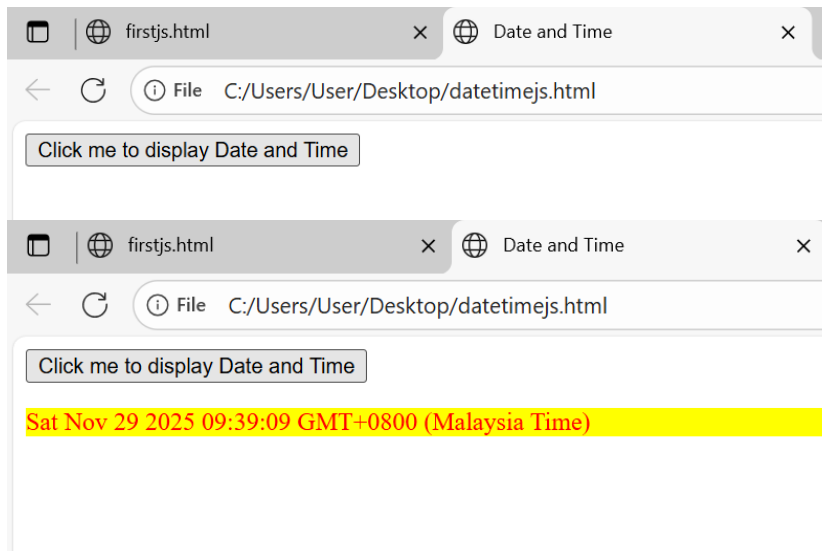
Output:



6.5 Date and Time

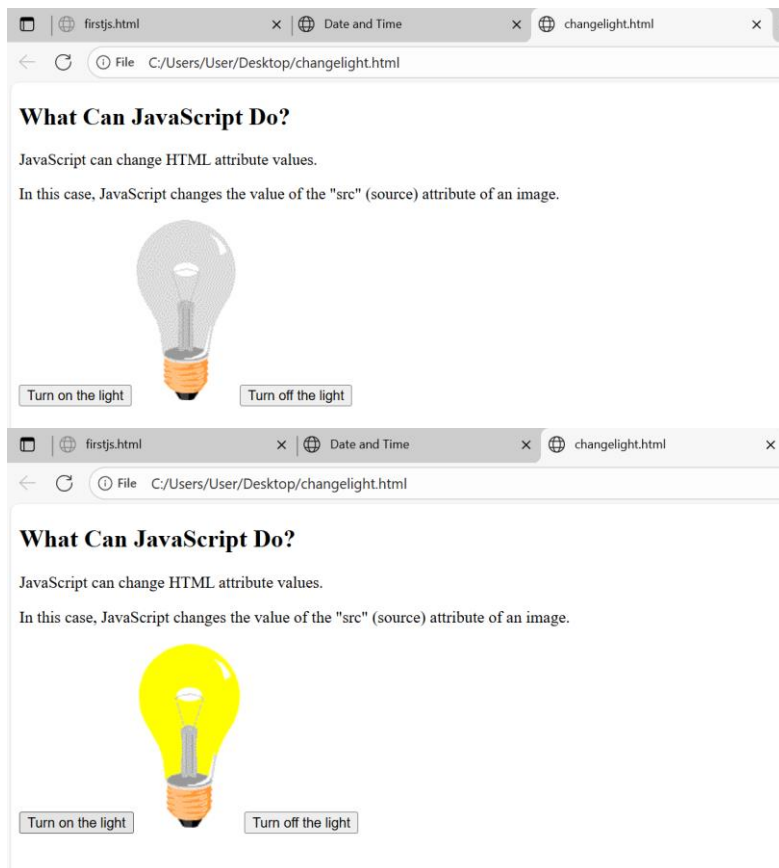
Output:





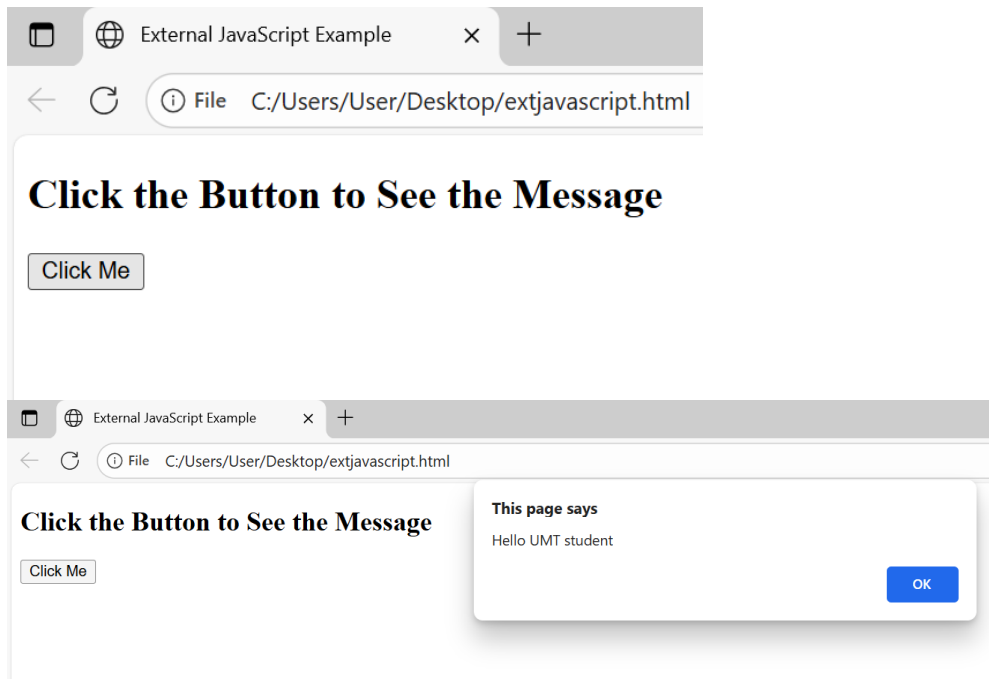
6.6 Change HTML Attribute Values

Output:



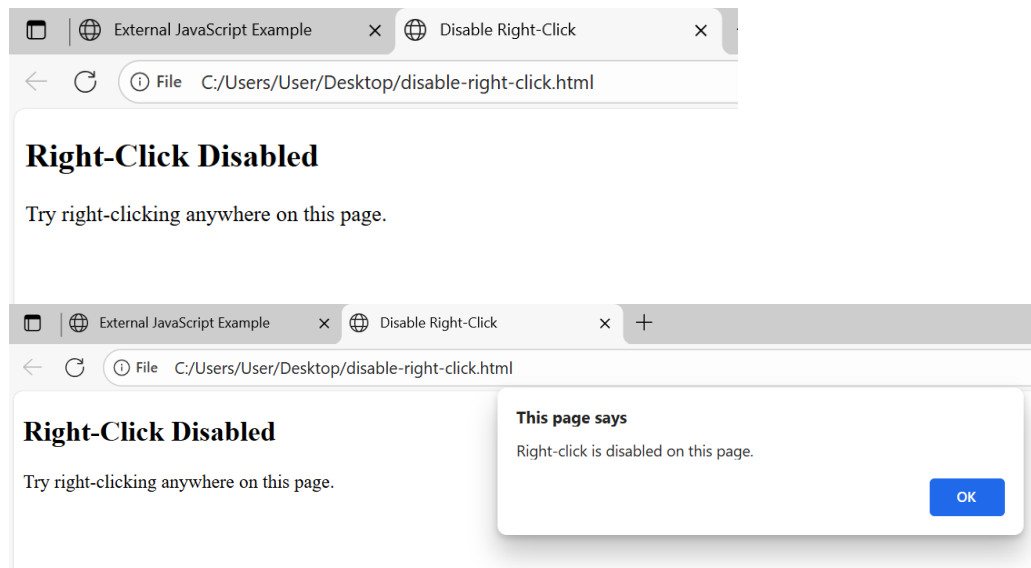
6.7.3 External References

Output:



6.8 Working with events

Output:



6.9 Multiplication Table

Output:

External JavaScript Example

Disable Right-Click

Multiplication Table

File C:/Users/User/Desktop/multiplication-table.html

Multiplication Table Generator

Enter number of rows:

Enter number of columns:

External JavaScript Example

Disable Right-Click

Multiplication Table

File C:/Users/User/Desktop/multiplication-table.html

Multiplication Table Generator

Enter number of rows:

Enter number of columns:

External JavaScript Example

Disable Right-Click

Multiplication Table

+

File C:/Users/User/Desktop/multiplication-table.html

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

6.10.1 Form Validation

Output:

The first screenshot shows a browser window with the title 'Form Validation Example'. The address bar displays 'File C:/Users/User/Desktop/form-validation.html'. The form contains a label 'First Name:' followed by an empty text input field and a green 'Submit' button.

The second screenshot shows the same form after clicking 'Submit'. The address bar now includes a query parameter: 'C:/Users/User/Desktop/form-validation.html?fname=Yey'. The input field remains empty.

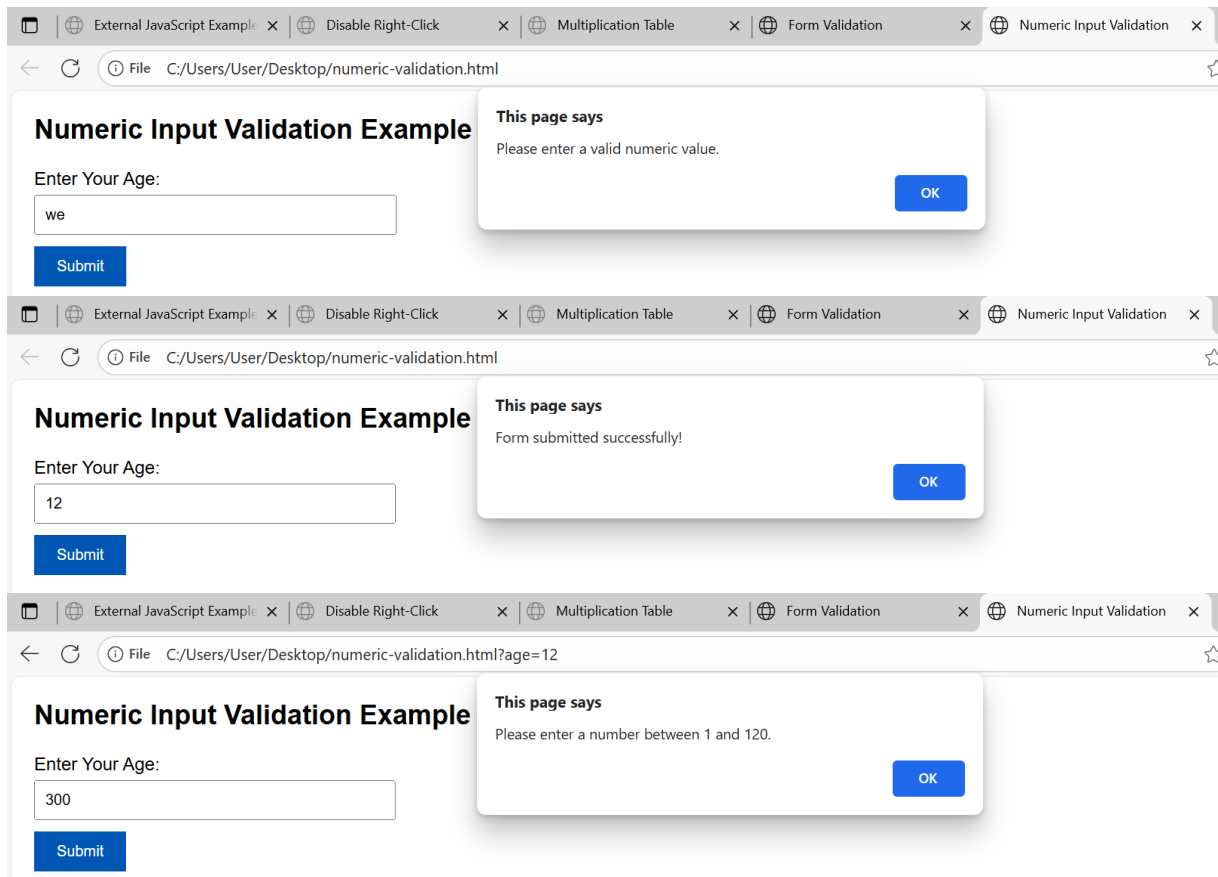
The third screenshot shows an error message box overlaid on the form. The message reads: 'This page says First Name must be filled out.' with an 'OK' button. The form fields and 'Submit' button are still visible behind the message box.

6.10.2 Numeric Input Validation

Output:

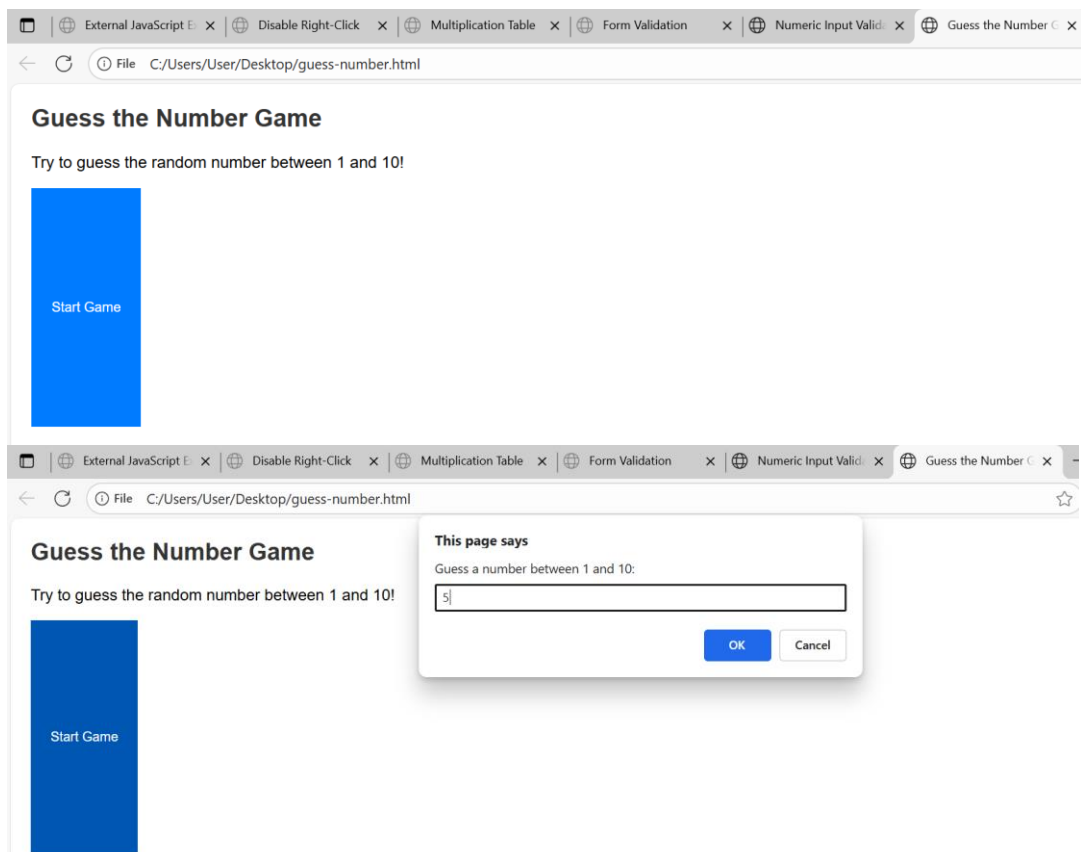
The first screenshot shows a browser window with the title 'Numeric Input Validation Example'. The address bar displays 'File C:/Users/User/Desktop/numeric-validation.html'. The form contains a label 'Enter Your Age:', a text input field with placeholder text 'Enter a number', and a blue 'Submit' button.

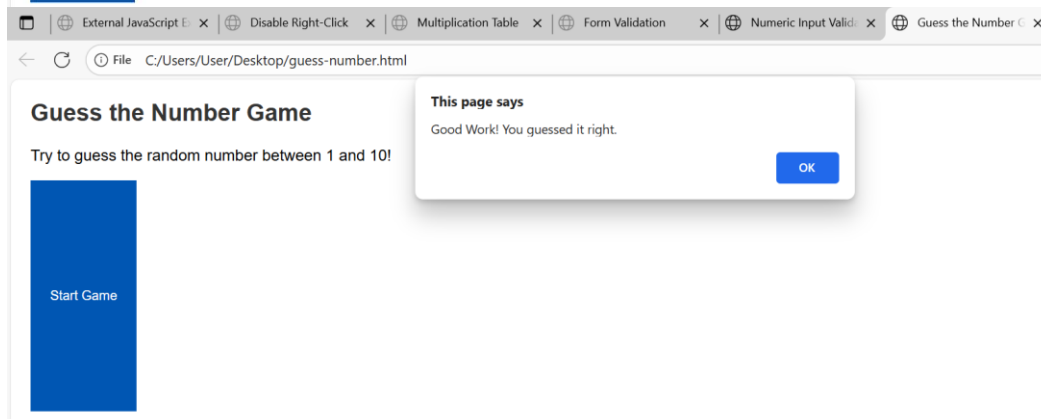
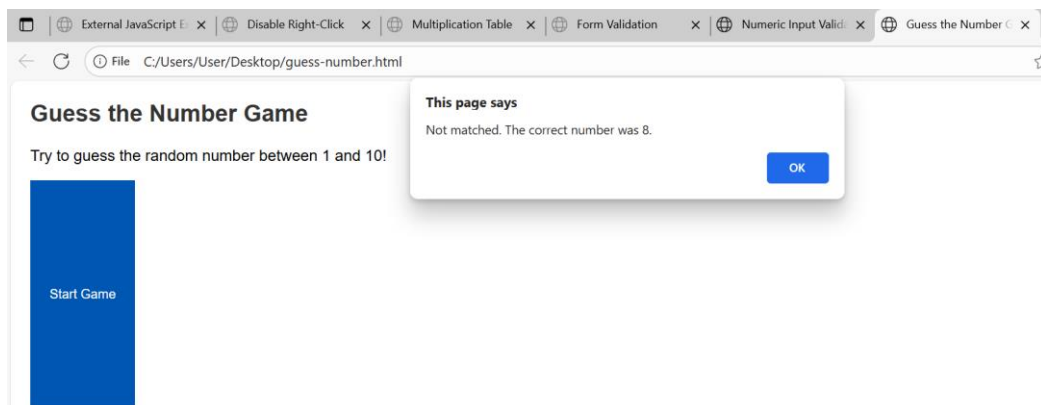
The second screenshot shows an error message box overlaid on the form. The message reads: 'This page says Age field cannot be empty.' with an 'OK' button. The form fields and 'Submit' button are still visible behind the message box.



6.11 Math Function

Output:





6.12 Lab Exercise 6

Source Code:

index.html

```

C:\Users\User\Desktop\index.html - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
guess-number.html guess-number.js index.html style.css script.js
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <title>Quiz Application</title>
6   <link rel="stylesheet" href="style.css">
7 </head>
8 <body>
9
10 <header>
11   <h1>Web Development Quiz</h1>
12   <p>Test your Knowledge! You have limited time for each question.</p>
13 </header>
14
15 <section id="quiz-container">
16
17   <div id="timer">Time Left: <span id="time">10</span>s</div>
18
19   <div id="question-box">
20     <h2 id="question"></h2>
21     <ul id="options"></ul>
22   </div>
23
24   <div id="feedback"></div>
25
26   <button id="next-btn" onclick="nextQuestion()">Next</button>
27 </section>
28
29 <footer id="score-section">
30   <h2>Your Score: <span id="score">0</span></h2>
31 </footer>
32
33 <script src="script.js"></script>
34 </body>
35 </html>
36
Hyper Text Markup Language file length: 849 lines: 36 Ln: 36 Col: 1 Pos: 850 Windows (CR LF) UTF-8 INS
29° 7:06 PM 9/12/2025
```

style.css

```

C:\Users\User\Desktop\style.css - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
guess-number.html guess-number.js index.html style.css script.js
1 body {
2   font-family: Arial, sans-serif;
3   background: #f1f1f1;
4   text-align: center;
5   padding: 20px;
6 }
7
8 header {
9   margin-bottom: 20px;
10 }
11
12 #quiz-container {
13   background: white;
14   padding: 20px;
15   max-width: 600px;
16   margin: auto;
17   border-radius: 10px;
18   box-shadow: 0 0 10px #ccc;
19 }
20
21 #timer {
22   font-size: 1.2em;
23   font-weight: bold;
24   margin-bottom: 20px;
25   color: #ff5722;
26 }
27
28 #options {
29   list-style: none;
30   padding: 0;
31 }
32
33 #options li {
34   padding: 10px;
35   margin: 8px 0;
36   background: #e3e3e3;
37   border-radius: 5px;
38   cursor: pointer;
39   transition: 0.3s;
40 }
41
42 #options li:hover {
43   background: #d1d1d1;
44 }
45
Cascade Style Sheets File length: 1,069 lines: 70 Ln: 70 Col: 1 Pos: 1,070 Windows (CR LF) UTF-8 INS
29° 7:07 PM 9/12/2025
```

```
C:\Users\User\Desktop\style.css - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
guess-number.html guess-number.js index.html style.css script.js
40 }
41
42 #options li:hover {
43     background: #d1d1d1;
44 }
45
46 #feedback {
47     margin: 15px 0;
48     font-size: 1.2em;
49     height: 25px;
50 }
51
52 #next-btn {
53     padding: 10px 20px;
54     font-size: 1em;
55     background: #2196f3;
56     color: white;
57     border: none;
58     border-radius: 5px;
59     cursor: pointer;
60 }
61
62 #next-btn:hover {
63     background: #0b7dda;
64 }
65
66 footer {
67     margin-top: 20px;
68     font-size: 1.4em;
69 }
70
Cascade Style Sheets File length: 1,069 lines: 70 Ln: 70 Col: 1 Pos: 1,070 Windows (CR LF) UTF-8 INS
29° 7:07 PM 9/12/2025
```

script.js

```
C:\Users\User\Desktop\script.js - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
guess-number.html guess-number.js index.html style.css script.js
1 // Questions Array
2 const questions = [
3     {
4         question: "Which HTML tag is used to create a hyperlink?",
5         options: ["<a>", "<link>", "<href>", "<nav>"],
6         answer: "<a>"
7     },
8     {
9         question: "Which CSS property controls text size?",
10        options: ["font-style", "text-size", "font-size", "text-style"],
11        answer: "font-size"
12    },
13    {
14        question: "Which symbol is used for comments in JavaScript?",
15        options: ["<!-- -->", "//", "/* */", "#"],
16        answer: "//"
17    },
18    {
19        question: "Which function displays messages in JS?",
20        options: ["log()", "print()", "alert()", "echo()"],
21        answer: "alert()"
22    }
23 ];
24
25 let shuffledQuestions = [];
26 let index = 0;
27 let score = 0;
28 let timer;
29 let timeLeft = 10;
30
31 // Shuffle Questions
32 function shuffleQuestions() {
33     shuffledQuestions = [...questions].sort(() => Math.random() - 0.5);
34 }
35
36 // Start Timer
37 function startTimer() {
38     timeLeft = 10;
39     document.getElementById("time").textContent = timeLeft;
40
41     timer = setInterval(() => {
42         timeLeft--;
43         document.getElementById("time").textContent = timeLeft;
44     }, 1000);
45 }
46
JavaScript file length: 3,221 lines: 123 Ln: 123 Col: 1 Pos: 3,222 Windows (CR LF) UTF-8 INS
29° 7:07 PM 9/12/2025
```

```
CAUsers\User\Desktop\scriptjs - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
guess-number.html guess-number.js index.html style.css script.js

34 }
35
36 // Start Timer
37 function startTimer() {
38     timeLeft = 10;
39     document.getElementById("time").textContent = timeLeft;
40
41     timer = setInterval(() => {
42         timeLeft--;
43         document.getElementById("time").textContent = timeLeft;
44
45         if (timeLeft <= 0) {
46             clearInterval(timer);
47             document.getElementById("feedback").textContent = "Time's up!";
48             disableOptions();
49         }
50     }, 1000);
51 }
52
53 // Display Question
54 function displayQuestion() {
55     const q = shuffledQuestions[index];
56     document.getElementById("question").textContent = q.question;
57
58     const optionsList = document.getElementById("options");
59     optionsList.innerHTML = "";
60
61     q.options.forEach(option => {
62         let li = document.createElement("li");
63         li.textContent = option;
64         li.onclick = () => checkAnswer(option, li);
65         optionsList.appendChild(li);
66     });
67 }
68
69 // Check Answer
70 function checkAnswer(selected, element) {
71     clearInterval(timer);
72     const correct = shuffledQuestions[index].answer;
73
74     if (selected === correct) {
75         score++;
76         document.getElementById("feedback").textContent = "Correct!";
77     }
78 }
79
80 // Disable options after answer
81 function disableOptions() {
82     const options = document.querySelectorAll("#options li");
83     options.forEach(li => li.onclick = null);
84 }
85
86 // Next Question
87 function nextQuestion() {
88     index++;
89
90     if (index < shuffledQuestions.length) {
91         document.getElementById("feedback").textContent = "";
92         displayQuestion();
93         startTimer();
94     } else {
95         finishQuiz();
96     }
97
98     document.getElementById("score").textContent = score;
99 }
100
101 // Finish Quiz
102 function finishQuiz() {
103     clearInterval(timer);
104 }
```

```
CAUsers\User\Desktop\scriptjs - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
guess-number.html guess-number.js index.html style.css script.js

67 }
68
69 // Check Answer
70 function checkAnswer(selected, element) {
71     clearInterval(timer);
72     const correct = shuffledQuestions[index].answer;
73
74     if (selected === correct) {
75         score++;
76         document.getElementById("feedback").textContent = "Correct!";
77         element.style.backgroundColor = "#4CAF50";
78     } else {
79         document.getElementById("feedback").textContent = "Wrong!";
80         element.style.backgroundColor = "#f44336";
81     }
82
83     disableOptions();
84 }
85
86 // Disable options after answer
87 function disableOptions() {
88     const options = document.querySelectorAll("#options li");
89     options.forEach(li => li.onclick = null);
90 }
91
92 // Next Question
93 function nextQuestion() {
94     index++;
95
96     if (index < shuffledQuestions.length) {
97         document.getElementById("feedback").textContent = "";
98         displayQuestion();
99         startTimer();
100     } else {
101         finishQuiz();
102     }
103
104     document.getElementById("score").textContent = score;
105 }
106
107 // Finish Quiz
108 function finishQuiz() {
109     clearInterval(timer);
110 }
```

```
C:\Users\User\Desktop\scriptjs - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
guess-number.html guess-number.js index.html style.css scriptjs

94     index++;
95
96     if (index < shuffledQuestions.length) {
97         document.getElementById("feedback").textContent = "";
98         displayQuestion();
99         startTimer();
100     } else {
101         finishQuiz();
102     }
103
104     document.getElementById("score").textContent = score;
105 }
106
107 // Finish Quiz
108 function finishQuiz() {
109     clearInterval(timer);
110     document.getElementById("quiz-container").innerHTML =
111         "<h2>Quiz Finished!</h2><p>Your final score is: <strong>${score}</strong></p>";
112 }
113
114 // Start Quiz
115 function startQuiz() {
116     shuffleQuestions();
117     displayQuestion();
118     startTimer();
119 }
120
121 // Start immediately
122 startQuiz();
123
```

JavaScript file length : 3,221 lines : 123 Ln : 123 Col : 1 Pos : 3,222 Windows (CR LF) UTF-8 INS

29° 7:07 PM 9/12/2025

Output:

