Web-based Interface Design

(CSF3133)

LAB REPORT

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LAB 6 EXERCISE

Code

1. Index.html

```
1   <!DOCTYPE html>
2   <html lang="en">
3   <head>
4       <meta charset="UTF-8">
5       <meta name="viewport" content="width=device-width, initial-scale=1.0">
6       <title>Sejarah Malaysia Quiz</title>
7       <link rel="stylesheet" href="style.css">
8   </head>
9   <body>
10      <header>
11          <h1>Sejarah Malaysia Quiz</h1>
12      </header>
13      <main>
14          <section id="quiz-container">
15              <div id="timer">Masa: <span id="time">30</span>s</div>
16              <div id="question-container">
17                  <p id="question"></p>
18                  <ul id="answers"></ul>
19              </div>
20              <div id="feedback"></div>
21              <button id="prev-btn" disabled>Soalan Sebelumnya</button>
22              <button id="next-btn" disabled>Soalan Seterusnya</button>
23          </section>
24      </main>
25      <footer>
26          <p>&copy; 2024 Sejarah Malaysia Quiz. All rights reserved.</p>
27      </footer>
28      <script src="script.js"></script>
29  </body>
30  </html>
```

2. styles.css

```
1   body {
2       font-family: Arial, sans-serif;
3       text-align: center;
4       background-color: #f9f9f9;
5       color: #333;
6   }
7
8   header {
9       background-color: #007bff;
10      color: white;
11      padding: 20px;
12      margin-bottom: 20px;
13  }
14
15  #quiz-container {
16      max-width: 600px;
17      margin: 0 auto;
18      padding: 20px;
19      border: 1px solid #ddd;
20      background: #fff;
21      border-radius: 10px;
22  }
23
24  #timer {
25      font-size: 18px;
26      margin-bottom: 10px;
27      font-weight: bold;
28  }
29
30  #question {
31      font-size: 20px;
32      margin-bottom: 10px;
33  }
```

```css
35   #answers {
36       list-style: none;
37       padding: 0;
38   }
39
40   #answers li {
41       margin: 10px 0;
42       padding: 10px;
43       border: 2px solid #007bff;
44       border-radius: 5px;
45       cursor: pointer;
46       background-color: #f9f9f9;
47       transition: background-color 0.3s, transform 0.2s;
48   }
49
50   #answers li:hover {
51       background-color: #007bff;
52       color: white;
53       transform: scale(1.05);
54   }
55
56   #answers li:active {
57       transform: scale(0.95);
58   }
59
60   #feedback {
61       margin: 10px 0;
62       font-weight: bold;
63   }
```

```css
65   #next-btn, #prev-btn {
66       padding: 10px 20px;
67       margin: 10px 5px;
68       background-color: #1475dc;
69       color: white;
70       border: none;
71       border-radius: 5px;
72       cursor: pointer;
73   }
74
75   #next-btn:disabled, #prev-btn:disabled {
76       background-color: #ccc;
77       cursor: not-allowed;
78   }
79
80   footer {
81       margin-top: 20px;
82   }
83
84   body {
85       font-family: Arial, sans-serif;
86       text-align: center;
87       background-image: url('sejarah.png');
88       background-size: cover;
89       background-repeat: no-repeat;
90       background-position: center;
91       color: #000000;
92   }
```

```css
94    header {
95        background-color: rgba(0, 123, 255, 0.8);
96        color: white;
97        padding: 20px;
98        margin-bottom: 20px;
99        border-radius: 5px;
100    }
101
102    #quiz-container {
103        max-width: 600px;
104        margin: 20px auto;
105        padding: 20px;
106        border: 1px solid #ddd;
107        background: rgba(255, 255, 255, 0.9);
108        border-radius: 10px;
109        box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
110    }
111
112    footer {
113        text-align: center;
114        padding: 10px 0;
115        background-color: rgba(0, 123, 255, 0.8);
116        color: white;
117        position: fixed;
118        bottom: 0;
119        width: 100%;
120        font-size: 14px;
121        box-shadow: 0 -2px 5px rgba(0, 0, 0, 0.1);
122    }
```

```javascript
1    const questions = [
2        {
3            question: "Siapakah Bapa Kemerdekaan Malaysia?",
4            options: ["Tun Abdul Razak", "Tunku Abdul Rahman", "Tun Hussein Onn", "Tun Dr. Mahathir"],
5            correct: "Tunku Abdul Rahman"
6        },
7        {
8            question: "Bilakah Malaysia mencapai kemerdekaan?",
9            options: ["31 Ogos 1957", "16 September 1963", "31 Ogos 1963", "31 Disember 1957"],
10            correct: "31 Ogos 1957"
11        },
12        {
13            question: "Apakah nama perjanjian yang membawa kepada penubuhan Malaysia?",
14            options: ["Perjanjian Bangkok", "Perjanjian Malaysia", "Perjanjian Persekutuan", "Perjanjian Manila"],
15            correct: "Perjanjian Malaysia"
16        },
17        {
18            question: "Siapakah yang digelar sebagai Bapa Malaysia?",
19            options: ["Tun Abdul Razak", "Tunku Abdul Rahman", "Tun Dr. Ismail", "Tun Mahathir"],
20            correct: "Tunku Abdul Rahman"
21        }
22    ];
23
24    let currentQuestionIndex = 0;
25    let score = 0;
26    let timer;
27    let timeLeft = 30;
28    let answeredQuestions = [];
29
30    function shuffleQuestions() {
31        questions.sort(() => Math.random() - 0.5);
32    }
```

```javascript
33
34    function startTimer() {
35        timeLeft = 30;
36        document.getElementById("time").textContent = timeLeft;
37        clearInterval(timer);
38        timer = setInterval(() => {
39            timeLeft--;
40            document.getElementById("time").textContent = timeLeft;
41            if (timeLeft <= 0) {
42                clearInterval(timer);
43                showFeedback(false);
44                setTimeout(nextQuestion, 1000);
45            }
46        }, 1000);
47    }
48
49    function displayQuestion() {
50        const questionData = questions[currentQuestionIndex];
51        document.getElementById("question").textContent = questionData.question;
52
53        const answersList = document.getElementById("answers");
54        answersList.innerHTML = "";
55
56        questionData.options.forEach(option => {
57            const li = document.createElement("li");
58            li.textContent = option;
59            li.onclick = () => {
60                if (!answeredQuestions[currentQuestionIndex]) {
61                    checkAnswer(option);
62                    answeredQuestions[currentQuestionIndex] = true;
63                }
64            };
65            answersList.appendChild(li);
66        });
```

```javascript
68        document.getElementById("feedback").textContent = "";
69        document.getElementById("next-btn").disabled = !answeredQuestions[currentQuestionIndex];
70        document.getElementById("prev-btn").disabled = currentQuestionIndex === 0;
71
72        startTimer();
73    }
74
75    function checkAnswer(selected) {
76        const questionData = questions[currentQuestionIndex];
77        const isCorrect = selected === questionData.correct;
78
79        if (isCorrect) score++;
80
81        showFeedback(isCorrect);
82
83        clearInterval(timer);
84
85        document.getElementById("next-btn").disabled = false;
86    }
87
88    function showFeedback(isCorrect) {
89        const feedback = document.getElementById("feedback");
90        feedback.textContent = isCorrect ? "Jawapan Betul!" : "Jawapan Salah!";
91        feedback.style.color = isCorrect ? "green" : "red";
92    }
93
94    function nextQuestion() {
95        if (currentQuestionIndex < questions.length - 1) {
96            currentQuestionIndex++;
97            displayQuestion();
98        } else {
99            endQuiz();
100        }
101    }
```

```javascript
103 ∨ function prevQuestion() {
104 ∨     if (currentQuestionIndex > 0) {
105             currentQuestionIndex--;
106             displayQuestion();
107         }
108   }
109
110 ∨ function startQuiz() {
111         shuffleQuestions();
112         currentQuestionIndex = 0;
113         score = 0;
114         answeredQuestions = [];
115 ∨     document.getElementById("quiz-container").innerHTML = `
116             <div id="timer">Masa: <span id="time">30</span>s</div>
117             <div id="question-container">
118                 <p id="question"></p>
119                 <ul id="answers"></ul>
120             </div>
121             <div id="feedback"></div>
122             <button id="prev-btn" onclick="prevQuestion()" disabled>Soalan Sebelumnya</button>
123             <button id="next-btn" onclick="nextQuestion()" disabled>Soalan Seterusnya</button>
124         `;
125         displayQuestion();
126   }
127
128 ∨ function endQuiz() {
129 ∨     document.getElementById("quiz-container").innerHTML = `
130             <h2>Kuiz Tamat!</h2>
131             <p>Markah Anda: ${score} / ${questions.length}</p>
132             <button onclick="startQuiz()">Mulakan Semula</button>
133         `;
134   }
135
136   startQuiz();
```

Output

Sejarah Malaysia Quiz

Masa: 30s

Apakah nama perjanjian yang membawa kepada penubuhan Malaysia?

Perjanjian Bangkok

Perjanjian Malaysia

Perjanjian Persekutuan

Perjanjian Manila

Jawapan Betul!

Soalan Sebelumnya   Soalan Seterusnya

Sejarah Malaysia Quiz

Kuiz Tamat!

Markah Anda: 3 / 4

Mulakan Semula