

Developing Website Layouts & Functionality with HTML, CSS, and JavaScript

Part 1: Office Roleplay Dialogue

Scenario: A Web Developer, Kenta, is working with his colleague, Sofia, on updating and improving the layout and functionality of their company's website.

Sofia: Hey Kenta, I saw the latest changes to the website. The layout looks great! Did you update the **HTML (HyperText Markup Language)** structure?

Kenta: Thanks, Sofia! Yeah, I cleaned up the **HTML** code to improve readability and make it easier to maintain.

Sofia: Nice! I also noticed that the styling looks more refined. Did you adjust the **CSS (Cascading Style Sheets)**?

Kenta: Exactly. I updated the **CSS** to improve responsiveness and fix some alignment issues on mobile screens.

Sofia: That's great. I was also wondering—did you use **JavaScript** to make the navigation bar more interactive?

Kenta: Yes! I added some **JavaScript** to make the menu expand and collapse smoothly when clicked.

Sofia: That's a good improvement. I assume you used the **DOM (Document Object Model)** to manipulate the elements dynamically?

Kenta: Exactly! I used the **DOM** to select and modify elements in real-time. That way, we don't need to reload the page for the changes to take effect.

Sofia: That makes sense. The site is looking more polished now. The **front-end** experience feels much smoother!

Kenta: Thanks! I'm still testing a few things, but I'll push the final changes by the end of the day.

Sofia: Sounds like a plan. Let me know if you need a second opinion!

Part 2: Comprehension Questions

1. Why did Kenta update the HTML structure?

- (A) To make the website run faster
- (B) To encrypt user data
- (C) To remove all images from the site
- (D) To improve readability and maintainability

2. How did Kenta improve the website's responsiveness?

- (A) By adding new fonts
- (B) By updating the CSS
- (C) By changing the domain name
- (D) By increasing server capacity

3. What was JavaScript used for in the project?

- (A) To create a new website logo
- (B) To change the website hosting provider
- (C) To make the navigation bar interactive
- (D) To add more images to the homepage

4. What does the DOM help developers do?

- (A) Modify and interact with website elements dynamically
 - (B) Reduce the number of website visitors
 - (C) Improve cybersecurity protections
 - (D) Create a new company email system
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Part 3: Key Vocabulary Definitions in Japanese

1. **HTML (HyperText Markup Language) (HTML : ハイパーテキスト・マークアップ・ランゲージ)** – ウェブページの基本構造を作成するマークアップ言語。
 2. **CSS (Cascading Style Sheets) (CSS : カスケーディング・スタイル・シート)** – ウェブページのデザインやレイアウトを指定するスタイルシート言語。
 3. **JavaScript (ジャバスクリプト)** – ウェブページに動的な機能を追加するプログラミング言語。
 4. **DOM (Document Object Model) (DOM : ドキュメント・オブジェクト・モデル)** – ウェブページの構造をプログラムの的に操作するためのモデル。
 5. **Front-end (フロントエンド)** – ユーザーが直接操作するウェブサイトの画面や機能の部分。
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Part 4: Questions & Correct Answers

1. **Why did Kenta update the HTML structure?**

(D) To improve readability and maintainability

2. **How did Kenta improve the website's responsiveness?**

(B) By updating the CSS

3. **What was JavaScript used for in the project?**

(C) To make the navigation bar interactive

4. **What does the DOM help developers do?**

(A) Modify and interact with website elements dynamically