

Course: Computer Science 12

Teacher: Mr.Gullo

Ray Tian

Web Development Screenshot

Unit 1:

The screenshot shows a course interface with a sidebar containing a table of contents for 'VS CODE FOR EDUCATION: TABLE OF CONTENTS'. The 'Intro to Web Development' section is expanded, showing 'Lesson 1 - Brief History of the Web and Web Development' selected. This lesson has several sub-items: 'Why the Web? (current)', 'What is the Web, anyway?', 'The Internet (1960s - 1970s)', 'Birth of the World Wide Web (1990s)', 'The Explosion of the Web (Late 1990s-2000s)', and 'Summary'. The main content area displays 'Lesson 1 - Brief History of the Web and Web Development' with a heading 'People go to websites for many different reasons, though most of these fall into a few broad categories: Information, Entertainment, Social Connections, and Creative Expression. Look at the list of websites you recently visited.' Below this is a text input field with placeholder text: 'I think is entertainment. I will feel boring and lost a way to relief the pressure. If I can't access to these websites, I will prefer to stay outdoor for entertaining. Playing with my friends.' A character limit of '207 characters remaining' is shown. At the bottom of the content area are 'Back', 'Give Feedback', and a note about internet connection.

The screenshot shows the same course interface. The content area now displays a green box with the message 'Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.' Below this, under 'INSTRUCTIONS', it says: 'Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.' The main content area contains several questions with dropdown menus and radio buttons for answers. At the bottom are 'Back', 'Give Feedback', and 'Next' buttons.

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Lesson 1 - Brief History of the Web and Web Development

Check Your Understanding

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Complete the sentences using the provided options.

The infrastructure of the Internet was enhanced with the introduction of the _____ to make it more accessible to everyone.

World Wide Web

Correct! In 1989, British scientist Tim Berners-Lee proposed a system that made the Internet accessible to everyone, the World Wide Web.

The primary motivation behind the World Wide Web's inception was to provide a(n) _____ to the existing Internet structure.

user-friendly interface

Correct! They designed and created a network of devices connected in a web-like design with no central location. Information could be sent from one device to any other device or devices along different paths.

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Lesson 1 - Brief History of the Web and Web Development

Check Your Understanding

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Complete the sentences using the provided options.

Web browsers allowed people to _____ the World Wide Web and access its contents.

navigate

Correct! Web browsers were created to allow people access to websites. Search engines were created to index the information on the World Wide Web and make this information easier to find.

One primary reason for the evolution of the web in the late 1990s and 2000s was the need for people to connect, communicate, and conduct _____ with each other.

e-commerce

Correct! Social media sites and e-commerce sites were created to help people connect, communicate, and conduct business with each other.

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Lesson 2 - Web Browsers, Websites and Developer Tools

What is the primary function of a web browser?

To translate the code of a website into readable content for users.

To store web pages for future access.

To connect devices to the Internet.

To create websites using HTML.

Correct!

For adding interactive elements to a website, which language is commonly used?

HTML

Web Browser

Cascading Style Sheets (CSS)

JavaScript

Correct!

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Lesson 2 - Web Browsers, Websites and Developer Tools

Well done! You've successfully completed all of the check your understanding questions and are ready to move on to the next page of the lesson.

Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

What does a web server do?

It translates code into graphics.

It functions as a web browser.

It designs websites for users.

It listens constantly for information requests over the web.

Correct!

What is the primary function of a web browser?

To translate the code of a website into readable content for users.

To store web pages for future access.

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Lesson 3 - Basic HTML Structure and Tags

You probably found some of these elements when you reviewed the code for other websites. Let's review at each of these elements in more detail.

Check Your Understanding

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Match the term to its definition.

The language used to create the basic structure of a web page.

HTML

Correct!

A coding language used for describing the presentation of a web page, such as the style and layout.

CSS

Correct!

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Lesson 3 - Basic HTML Structure and Tags

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Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Match the term to its definition.

The section of an HTML document that contains information not displayed on the web page itself, such as the title and descriptions for search engines.

head

Correct!

Specific pieces of HTML code that define and structure content on a web page, such as <html>, <title>, <body>, etc.

tags

Correct!

The main content area of an HTML document that contains the visible page content.

body

Correct!

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The screenshot shows the VS Code for Education interface. On the left, there's a sidebar with a 'Table of Contents' for 'Intro to Web Development'. The main area is titled 'Content' and contains a 'Mapping Question' for 'Lesson 3 - Basic HTML Structure and Tags'. The question asks to match terms to definitions. Definitions include 'The portion of an HTML document contained within <head> tags, usually including the document title and other information not directly visible on the web page.', 'A block of text in an HTML document marked by starting <p> and closing </p> tags.', 'An HTML element that defines a heading or introduction area.', and 'The part of an HTML document that appears in the browser's tab.'. Below each definition is a dropdown menu with options like 'metadata', 'Correct!', 'paragraph', 'header', and 'title'. At the bottom are 'Back', 'Give Feedback', and 'Next' buttons.

The screenshot shows the VS Code for Education interface. The sidebar has a 'Table of Contents' for 'Getting Started with VS Code for EDU'. The main area is titled 'Content' and features a 'Practice: Mapping Question' for 'Interacting With Your Course'. It says 'Included below is an example mapping question that asks about your knowledge of shapes. Remember, you can attempt this multiple times - we're not keeping score!'. Below this, it says 'When you have a correct answer for any of the shapes, the box will turn green. Keep trying until all boxes turn green.' Under 'Check Your Understanding', it says 'Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.' A green box at the bottom contains instructions: 'Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.' The question asks to match shapes to their number of sides. Options for 'Pentagon' are '5 sides' and 'Correct! A pentagon has 5 sides.'. Options for 'Triangle' are '3 sides' and 'Correct! A triangle has 3 sides.'. Options for 'Square' are '4 sides' and 'Correct! A square has 4 sides.'. At the bottom are 'Back', 'Give Feedback', and 'Next' buttons.

The screenshot shows a course interface with a sidebar containing a table of contents and navigation links. The main content area is titled "Interacting With Your Course". It includes a "Python REPL" section with sample code and instructions, and a "Running Python REPL..." section showing the result of running the code. At the bottom are "Back", "Give Feedback", and "Next" buttons.

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Getting Started with VS Code for EDU

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- Practice: Multiple Choice Question
- Practice: Multiple Option Question
- Practice: True/False Question
- Practice: Mapping Question
- Practice: Fill in the Blank Question
- Practice: Reflection & Evaluation
- Practice: REPL (current)

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Interacting With Your Course

whole file at once. The REPL will automatically print the result of the last expression you entered. If you want to print the result of an expression that is not the last one you entered, you can use the `print` function. For example, `print(2 + 3 + 4)` will print the result of the expression $2 + 3 + 4$ to the console.

The REPL appeared on the right side of the screen. This is where you will enter your code, remembering that in a REPL it can only take single user inputs, executes them, and returns the result to the user.

We've provided some sample code for you to type in your REPL:

```
python
Copy
(2+9)*4-8
```

Click inside the REPL and after typing the sample code, you can run it by hitting the "Enter" key on your keyboard. The REPL will automatically print the result of the code you entered.

You will complete this REPL activity when you see an answer of 36 printed:

```
Python REPL X
Running Python REPL...
>>> (2+9)*4-8
36
>>>
```

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The screenshot shows a course interface with a sidebar containing a table of contents and navigation links. The main content area is titled "Interacting With Your Course". It includes a "Example: Coding Challenge" section with a screenshot of a code editor and instructions, and a "Running File" section showing the output of the submitted code. At the bottom are "Back", "Give Feedback", and "Next" buttons.

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Interacting With Your Course

You will complete this Code Challenge when a message displays that "Your code ran successfully."

Example: Coding Challenge

intro_example.py

```
1 print('Hello world!')
```

Running File \course\gs-w\gs-w-interact\gs-w-interact-code-chall\intro_example-validate.py

YOUR CODE We ran your code. Here's the output:

```
Hello world!
```

FEEDBACK Based on your code, here are some tips and recommendations:

✓ Your code ran successfully.

Great work! Based on your code submitted, there are no other recommendations available. You can proceed to the next page by using the "Next" button in your lesson.

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- Accessibility
- Feedback
- Sharing Feedback and Bug Reports
- Summary
- Summary (current)

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Summary

Thank you for taking a quick tour of Visual Studio Code for Education. At the end of each lesson you will reach a Summary page which provides a recap of what was covered. As an example, during this lesson, you reviewed the following:

- the layout and tools available in Visual Studio Code for Education.
- how to complete quizzes and coding projects.
- how to provide feedback on your experience.

Congratulations! You are ready to get started in a course!

Lesson Feedback

Great job finishing this lesson! We hope you enjoyed it. We'd love to hear your thoughts. How did the lesson go for you? After selecting an emoji below, a new browser window will open briefly. You will know that your feedback was recorded when the window automatically closes.

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Text Tags

Here we have added an element to the head section and two elements to the body section.

```
html
<!DOCTYPE html>
<html>
  <head>
    <title>Page Title</title>
  </head>
  <body>
    <h1>My First Heading</h1>
    <p>My first paragraph.</p>
    <p>My second paragraph. </p>
    <p>My third paragraph.. </p>
  </body>
</html>
```

text-tags.html

The title tag is a required element in the head section of your web page. Think carefully about what your website title will be as this is the title that will appear in the tab of the browser that is displaying your web page and saved as the title if your page is bookmarked! This title is also used by search engines, so make sure it is relevant to your page content.

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Lesson 4 - Basic HTML Formatting Tags for Text

Notice that the `` tag makes the text appear with a horizontal strikethrough line throughout the middle of the text, like it has been written and crossed out. The `<ins>` tag inserts text inside of it, but keep in mind that inserted text is underlined by default while the `<u>` tag underlines the text inside of its tag.

Try running the code below:

```
html
<!DOCTYPE html>
<html>
  <head>
    <title>Delete, insert, and underline</title>
  </head>
  <body>
    <p>My favorite snack is <del>chips</del> <ins>carrots</ins></p>
    <p>The following word is <u>underlined</u>.</p>
  </body>
</html>
```

Preview

My favorite snack is ~~chips~~ carrots!

The following word is underlined.

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Unit 2:

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Content

Lesson 1 - What is design?

Well done! You've successfully completed all of the check your understanding questions and are ready to move on to the next page of the lesson.

Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Look back on your list of websites that you use often. Visit at least two of them now and be mindful of the user interface, specifically the look and 'feel' of the website.

- What is the basic format of the website?
- How are different font styles and sizes used?
- What colors are used and how do the colors match the website content?
- What are the design attributes of any buttons, animations, links, or text entry fields?

```
<!DOCTYPE html>
<body>
```

182 characters remaining

Thank you for providing your response.

Change answer

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Content

Lesson 1 - What is design?

The "science" of website design

While it may be easy to understand how 'art' and 'technology' are components of website design, what do we mean by the 'science' of website design? What does science have to do with creating good design for websites?

Remember that people visit websites to solve a problem. The problems can be wide ranging. The user may need to buy or sell something, find a piece of information, or make a social connection, or 'solve' boredom, by playing a game.

Science is used to solve problems.

The two main areas of the science of design are:

- User Interface (UI)
- User Experience (UX)

User Interface

User Interface in website design is about how a website looks and 'feels' to the user. A User Interface or UI designer considers the entire website. They consider the design of every color, button, text entry field, animation, and anything else the user may interact with on a web page.

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Lesson 1 - What is design?

answer each question or enter a response, select the button to check or submit your answer.

Look back on your list of websites that you use often. Visit at least two of them now and be mindful of the user experience, specifically how you interact with the website.

- How did the website meet your expectations when you first visited the site?
- How easy (or difficult) is it for you to find what you came to the website for?
- How could the site be simplified?
- What would you like to see here that isn't here?
- What elements are not useful to you and could be removed?
- Did the elements work the way you expected them to work (ex: no 'broken' links?)
- How does your user experience differ when you visit this site on a laptop, versus a tablet or a smartphone?
- How could your experience with this site be better?

I think the design of website is fascinating. It is very easy for me to find it because of the advertising. It has a simplified version. The special video, long video. I think comment can not be ever removed. Yes, actually it

104 characters remaining

Thank you for providing your response.

Change answer

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Lesson 2 - The Design Thinking Process

answer each question or enter a response, select the button to check or submit your answer.

Complete the sentences using the provided options.

The process of _____ helps in empathizing with the user by conveying their experiences and emotions effectively.

storytelling

Correct!

Creating scaled-down models or representations of ideas to explore potential solutions is done in the _____ stage.

prototype

Correct!

The first stage of the Design Thinking Process, which involves understanding the users' needs and experiences, is called _____.

empathize

Correct!

Design Thinking is known for its _____-centric approach, focusing on real-life applications based on your clients' behaviors and needs.

user

Correct!

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Content

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Lesson 2 - The Design Thinking Process

may be used. These narratives help others to visualize your solution in action.

User Testing and Feedback

During the Testing phase, storytelling can help in gathering feedback. Users often share their experiences with the prototype in a narrative form. Understanding and analyzing these stories can provide deep insights into how the solution fits into the user's experience and can highlight areas that may need improvement.

Team Engagement

Throughout the design process, storytelling is a vital tool for engaging others on your team that may not have a background in design. It helps you communicate complex ideas and the value of the design decisions you made in a way that is both engaging and easily understood.

In summary, storytelling in Design Thinking is about crafting and using narratives effectively to gain empathy, define problems, communicate ideas, and gather meaningful feedback. It is less of a distinct phase and more of a skill or tool employed throughout the entire Design Thinking process to facilitate understanding, engagement, and connection with the users and others involved in your product creation.

Design thinking is highly regarded for its user-centric approach, which emphasizes real-world applications based on how people think, feel, and behave. It's used in various fields, not just in design, because of its effectiveness in generating innovative solutions to complex problems.

We will use the Design Thinking Process to design and create a website for a client.

Back Give Feedback Next

Unit 3:

The screenshot shows a web-based learning environment. On the left, there's a sidebar with a graduation cap icon and a "VS CODE FOR EDUCATION: TABLE OF CONTENTS" section. The main content area has a title "Code Challenge: Building Your Client Web Page (Prototype)". Below the title, there's a text box containing instructions about creating a web page using HTML and CSS. To the right of the text box is a code editor window showing a partial HTML and CSS file. At the bottom of the screen are "Back", "Give Feedback", and "Next" buttons.

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of web page goes here.</title>
    <style>
      body {
        background-image: url('VSCodeIcon.png');
        background-size: cover;
        background-position: center;
      }
      h1 {
        color: #rgb(255, 255, 255);
      }
      p {
        color: #blue;
        font-size: 14px;
        font-family: Arial, Helvetica, sans-serif;
      }
    </style>
  </head>
  <body>
    <h1>Sample header text</h1>
    <p>Sample paragraph text.</p>
  </body>
</html>
```

This screenshot shows a continuation of the learning environment. The sidebar remains the same. The main content area now displays a green box stating "Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson." Below this, there are two text input fields for responses to questions. The first question asks "What was it like to interview someone?" with a response placeholder "It is an important tool to know someone". The second question asks "What do you feel is an important 'take away' from the experience?" with a response placeholder "Having the interview in public place.". At the bottom are "Back", "Give Feedback", and "Next" buttons.

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 - Define the Problem (Define)
 - Brainstorm Ideas (Ideate)
 - Code Challenge: Building Your Client Web Pa...
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Lesson 2 - Interviewing Your Client

What was it like to interview someone?

It is an important tool to know someone.

361 characters remaining

Thank you for providing your response

Change answer

What do you feel is an important 'take away' from the experience?

Having the interview in public place.

363 characters remaining

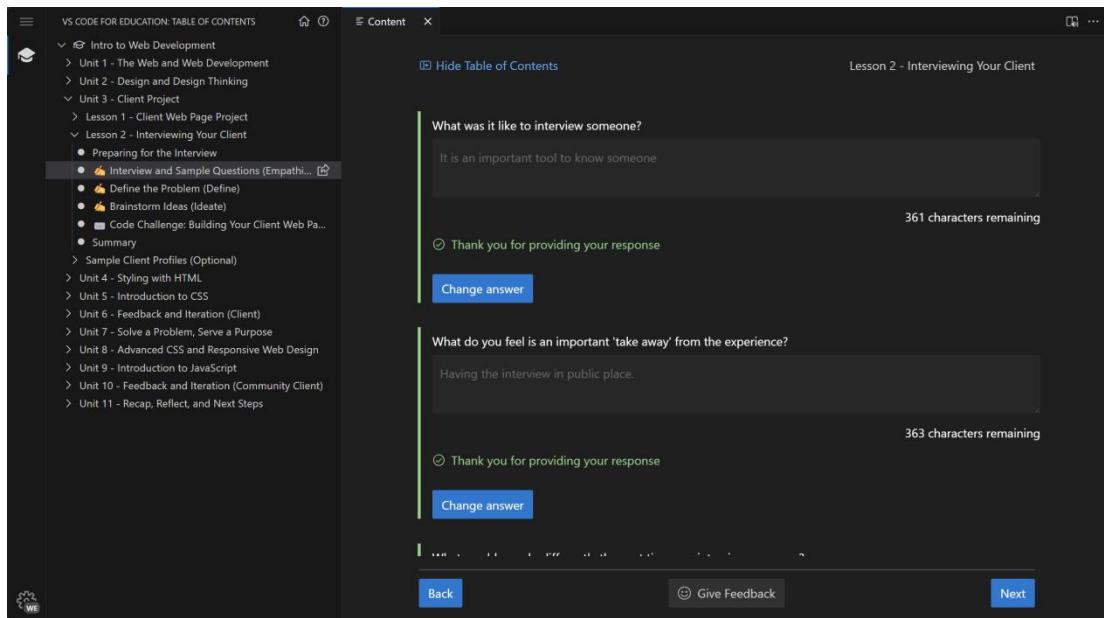
Thank you for providing your response

Change answer

Back

Give Feedback

Next



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Lesson 2 - Interviewing Your Client

.....

..... throughout the rest of the design thinking process to make sure your decisions are in keeping with this core need.

Selecting Your Client

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Using the template above, what is your one sentence define statement?

My client, a small business owner, needs a way to effectively showcase their unique products online through a user-friendly website so as to reach a broader audience, enhance brand visibility, and significantly increase

150 characters remaining

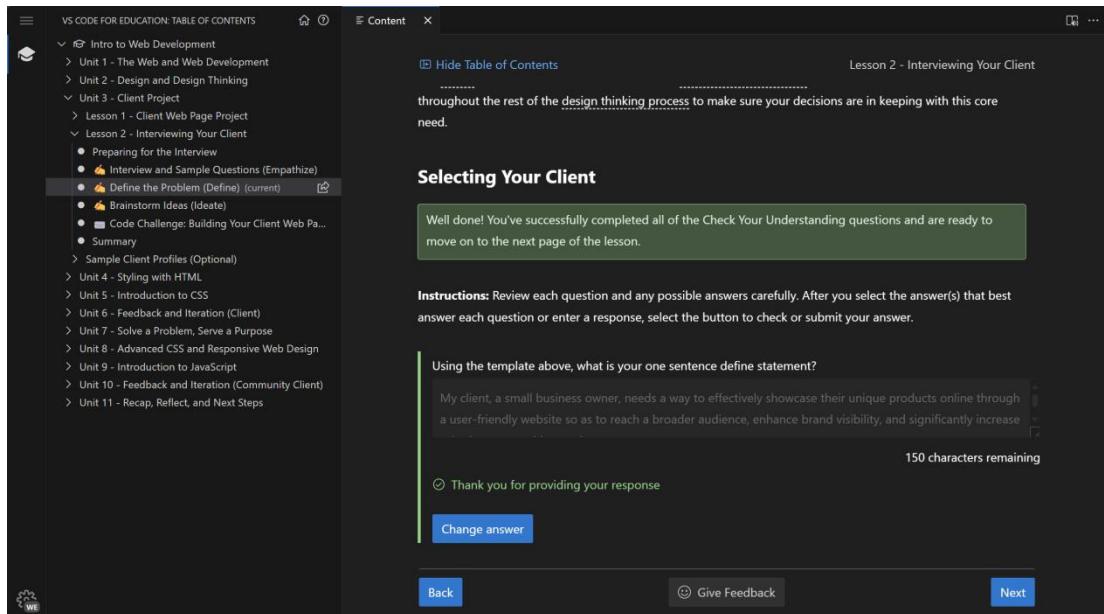
Thank you for providing your response

Change answer

Back

Give Feedback

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Lesson 2 - Interviewing Your Client

building of the page go more smoothly.

Selecting Your Client

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Describe the key highlights of your brainstorming process. Did you create an idea board? What are the key takeaways from your exploration?

In my brainstorming process, I explored various concepts, organized ideas by themes, and refined them based on relevance. I didn't create a physical idea board but mentally categorized key points. Key takeaways

87 characters remaining

Thank you for providing your response

Change answer

Back

Give Feedback

Next

Unit 4:

VS CODE FOR EDUCATION: TABLE OF CONTENTS

Content

Lesson 1 - HTML: Beyond the Basics

browsers and search engines.

- HTML attributes can be added to any HTML element.
- The attributes are always coded into the opening tag of the HTML element.

The attributes usually follow this format: name of attribute = "value". Let's review some examples on the next few pages.

Check Your Understanding

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Complete the sentences using the provided options.

HTML attributes can be added to the _____ tag of an HTML element.

opening

Correct!

Back Give Feedback Next

VS CODE FOR EDUCATION: TABLE OF CONTENTS

Content

Lesson 1 - HTML: Beyond the Basics

Check Your Understanding

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Complete the sentences using the provided options.

The _____ attribute in HTML is used to provide additional information about an element.

title

Correct!

A title attribute is displayed as a _____ when the mouse hovers over the element.

tooltip

Correct!

Back Give Feedback Next

titles.html

```
<!DOCTYPE html>
<head>
</head>
<body>
  <p title="Hi there, web designer!">Hover
</body>
</html>
```

The screenshot shows a web-based learning environment. On the left, a sidebar titled "VS CODE FOR EDUCATION: TABLE OF CONTENTS" lists various lessons and units. The "Language Attribute" section is currently selected. The main content area displays a message: "Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson." Below this, instructions advise reviewing each question and selecting the best answer or entering a response. A code editor window on the right shows the lang.html file with the following code:

```
<!DOCTYPE html>
<html lang="en-US">
  <head>
    <title>Title of web page goes here</title>
  </head>
  <body>
    <p title="Hello!">Your web page content</p>
  </body>
</html>
```

The screenshot shows a web-based learning environment. On the left, a sidebar titled "VS CODE FOR EDUCATION: TABLE OF CONTENTS" lists various lessons and units. The "Code Challenge: Attributes to Elements" section is currently selected. The main content area displays a heading: "Code Challenge: Attributes to Elements". Below this, instructions advise adding the language attribute and at least one title attribute to a web page. A code editor window on the right shows the index.html file with the following code:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of web page goes here</title>
    <style>
      body {
        background-image: url('VSCodeIcon.jpg');
        background-size: cover;
        background-position: center;
      }
      h1 {
        color: #rgb(255, 255, 255);
      }
      p {
        color: #blue;
        font-size: 14px;
        font-family: Arial, Helvetica, sans-serif;
      }
    </style>
  </head>
  <body>
    <h1>Sample header text</h1>
    <p>Sample paragraph text.</p>
  </body>
</html>
```

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Content

Hide Table of Contents Lesson 2 - HTML Lists

Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Complete the sentences using the provided options.

An ordered list in HTML is created using the _____ tag.

Correct!

A(n) _____ list in HTML is used for items that need to be in a specific order.

Correct!

To change the numbering style of an ordered list to Roman numerals, the CSS property list-style-type: _____ can be used.

Correct!

Back Give Feedback Next

```
<!DOCTYPE html>
<html>
  <head>
    <title>This text will appear in the browser</title>
  </head>
  <body>
    <h1>HTML Ordered List example</h1>
    <h3>Roman Emperors</h3>
    <ol type="A">
      <li>Augustus</li>
      <li>Tiberius</li>
      <li>Caligula</li>
      <li>Claudius</li>
      <li>Nero</li>
    </ol>
  </body>
</html>
```

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Content

Hide Table of Contents Lesson 2 - HTML Lists

Complete the sentences using the provided options.

An unordered list in HTML is created using the _____ tag.

Correct!

To create individual list items within both ordered and unordered lists, the <____> tag is used.

Correct!

For a more compact list, the CSS property list-style-type: _____; can be used to remove bullet points in an unordered list.

Correct!

The type attribute in the tag can be used to specify the _____ style of the numbers in an ordered list.

Correct!

Back Give Feedback Next

```
<!DOCTYPE html>
<html>
  <head>
    <title>This text will appear in the browser</title>
  </head>
  <body>
    <h1>HTML Unordered List example</h1>
    <h3>Common Fruits</h3>
    <ul type="disc">
      <li>Pears</li>
      <li>Apples</li>
      <li>Bananas</li>
      <li>Cherries</li>
      <li>Lemons</li>
    </ul>
  </body>
</html>
```

The screenshot shows the 'VS CODE FOR EDUCATION: TABLE OF CONTENTS' interface. On the left, a sidebar lists various web development units and lessons. The 'Lesson 2 - HTML Lists' section is currently selected. The main content area displays the 'Lesson 2 - HTML Lists' page. A green box at the top right says 'Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.' Below this, instructions tell users to review questions and select answers. Two dropdown menus show 'description' and 'dt and dd'. Buttons for 'Back', 'Give Feedback', and 'Next' are at the bottom.

VS CODE FOR EDUCATION: TABLE OF CONTENTS

Content

Hide Table of Contents Lesson 2 - HTML Lists

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

A _____ list, useful for defining terms and their descriptions.

description

Correct!

A description list in HTML is created using the _____ tags.

dt and dd

Correct!

Back Give Feedback Next

This screenshot shows the same 'VS CODE FOR EDUCATION: TABLE OF CONTENTS' interface as the previous one, but the content area now displays the 'Check Your Understanding' section. It includes the same green success message and instructions. A dropdown menu shows 'nested'. A note says 'Correct! A list inside another list item creates a nested list.' Buttons for 'Back', 'Give Feedback', and 'Next' are at the bottom.

VS CODE FOR EDUCATION: TABLE OF CONTENTS

Content

Hide Table of Contents Lesson 2 - HTML Lists

Check Your Understanding

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Placing a list inside another list item creates a _____ list.

nested

Correct! A list inside another list item creates a nested list.

Back Give Feedback Next

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Content

Hide Table of Contents Lesson 2 - HTML Lists

Code Challenge: Lists

What part of your client's information could best be presented as a list? Using what you learned in this lesson, add at least two lists of any kind to your client's web page:

- Ordered list
- Unordered list
- Description list
- Nested list

```

1 <!DOCTYPE html>
2 <html>
3   <head>
4     <title>Title of web page goes here</title>
5     <style>
6       body {
7         background-image: url('VSCodeIcon.jpg');
8         background-size: cover;
9         background-position: center;
10        }
11        h1 {
12          color: #rgb(255, 255, 255);
13        }
14        p {
15          color: #blue;
16          font-size: 14px;
17          font-family: Arial, Helvetica, sans-serif;
18        }
19      </style>
20    </head>
21    <body>
22      <h1>Sample header text</h1>
23      <p>Sample paragraph text.</p>
24    </body>
25  </html>

```

Back Give Feedback Next

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Content

Hide Table of Contents Lesson 3 - Embedding Images: Relative & Absolute

The value for the alt attribute is the text that will be read by a screen reader or displayed on the web page if the image does not load.

Check Your Understanding

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Complete the sentences using the provided options.

The __ attribute provides alternative text for an image if it cannot be displayed, which is also important for accessibility.

alt

Correct!

To add an image to a web page, the tag is used with the __ attribute to specify the image's source.

src

Correct!

Back Give Feedback Next

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Hide Table of Contents Lesson 3 - Embedding Images: Relative & Absolute

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Complete the sentences using the provided options.

The `alt` attribute provides alternative text for an image if it cannot be displayed, which is also important for accessibility.

`alt` Correct!

To add an image to a web page, the `` tag is used with the `src` attribute to specify the image's source.

`src` Correct!

Back Give Feedback Next

absolute-relative.html

```
<!DOCTYPE html>
<html>
  <head>
    <title>Client Web Page</title>
  </head>
  <body>
    <h1>Embed an image example</h1>
    <!--Example of an absolute url as src value-->
    
    <!--Example of a relative url as src value-->
    
    <!--Example of an error retrieving an image-->
    
  </body>
</html>
```

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 - Code Challenge: Input and Output
- Summary
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 - Why do we need to use HTML and JavaScript together?
 - Using JavaScript to modify HTML
 - Code Challenge: JavaScript and HTML
- Summary

Content

Hide Table of Contents Lesson 3 - Embedding Images: Relative & Absolute

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Complete the sentences using the provided options.

The `height` attribute in the `` tag controls the height of the image.

`height` Correct!

The `width` attribute in the `` tag is used to set the width of the image on the web page.

`width` Correct!

Back Give Feedback Next

sizing.html

```
<!-- Place your HTML code below this comment. Happy coding! -->
<!DOCTYPE html>
<html>
  <head>
    <title>Client Web Page</title>
  </head>
  <body>
    <h1>Embed an image example</h1>
    Hello World!

body {color: red;}

<link rel="stylesheet" type="text/css" href="style.css">

Correct!

Why is CSS considered important in web design?

It replaces the need for HTML.

It helps in making the website look consistent and professional.

It is not necessary if HTML is used properly.

Correct!

Back Give Feedback Next

index.html

```
<!DOCTYPE html>
<head></head>
<body>
 <h1>Embed an image example</h1>

</body>
</html>
```

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      - Using JavaScript to modify HTML
      - Code Challenge: JavaScript and HTML
      - Summary

Content

Hide Table of Contents Lesson 2 - Basic CSS properties: Color, font-size, font-family, background

Let's review each of these css styles and how we can apply them to our client web page!

### Check Your Understanding

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

**Instructions:** Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Complete the sentences using the provided options.

The format for an inline style in HTML is   =“property:value;” where the property is what you want to change, like color, and the value is how you want to change it.

style

Correct!

When using ‘inline’ CSS styling, the style is written inside the    tag of the HTML element being styled.

opening

Correct!

Back Give Feedback Next

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    - Lesson 1 - What is CSS?
    - Lesson 2 - Basic CSS properties: Color, font-size, fo...
    - Font Size (current)
    - Font Family
    - Working with Color
    - Working with background color
    - Code Challenge: Applying inline styles
  - Lesson 3 - Inline, Internal and External CSS
  - Unit 6 - Feedback and Iteration (Client)
  - Unit 7 - Solve a Problem, Serve a Purpose
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  - Lesson 2 - Basics of JavaScript: Input and output
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    - What is an HTML event attribute?
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    - Code Challenge: JavaScript and HTML
  - Summary

Content

Hide Table of Contents Lesson 2 - Basic CSS properties: Color, font-size, fo...

later lesson.

Try using the `css style "font-size"`, like so:

```
html
<!DOCTYPE html>
<html>
 <head>
 <title>This text will appear in the browser</title>
 </head>
 <body>
 <p style="font-size:48px;">Trying different sizes</p>
 <p style="font-size:24px;">Trying different sizes</p>
 <p style="font-size:12px;">Trying different sizes</p>
 </body>
</html>
```

How can you use different font sizes to emphasize, de-emphasize, bring a visual order or sense of hierarchy to the information on a client's web page?

Back Give Feedback

index.html

```
<!-- Place your HTML code below this comment. Have fun! -->
<!DOCTYPE html>
<html>
 <head>
 <title>This text will appear in the browser</title>
 </head>
 <body>
 <p style="font-size:36px;">Trying different sizes</p>
 <p style="font-size:24px;">Trying different sizes</p>
 <p style="font-size:12px;">Trying different sizes</p>
 </body>
</html>
```

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    - Lesson 1 - What is CSS?
    - Lesson 2 - Basic CSS properties: Color, font-size, fo...
    - Font Size
    - Font Family (current)
    - Working with Color
    - Working with background color
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- Unit 9 - Introduction to JavaScript
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  - Lesson 2 - Basics of JavaScript: Input and output
    - What is Input and Output?
    - Fun with Functions
    - Input: HTML button tag and the onClick event...
    - What is an HTML event attribute?
    - Code Challenge: Input and Output
  - Summary
  - Lesson 3 - JavaScript and HTML
    - Why do we need to use HTML and JavaScript tog...
    - Using JavaScript to modify HTML
    - Code Challenge: JavaScript and HTML
  - Summary

Content

Hide Table of Contents Lesson 2 - Basic CSS properties: Color, font-size, fo...

select the button to check or submit your answer.

Complete the sentences using the provided options.

The `font-family` property allows you to change the typeface of text. You can list multiple fonts as a "fallback" system.

Correct!

A common practice in web design is to use no more than three families to keep the site readable and aesthetically pleasing.

Correct!

To change the size of the text, you use the `font-size` property. The common unit of measurement for this is pixels (px).

Correct!

— is a small line added to the ends of a printed letter, seen in New Roman.

Correct!

Back Give Feedback

index.html

```
<!-- Place your HTML code below this comment. Have fun! -->
<!DOCTYPE html>
<html>
 <head>
 <title>This text will appear in the browser</title>
 </head>
 <body>
 <p style="font-family:Arial;">This is Arial</p>
 <p style="font-family:Times New Roman;">This is Times New Roman</p>
 <p style="font-family:Courier New;">This is Courier New</p>
 </body>
</html>
```

VS CODE FOR EDUCATION: TABLE OF CONTENTS

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    - Lesson 2 - Basic CSS properties: Color, font-size, fo...
    - Basic CSS Properties
    - Font Size
    - Font Family
    - Working with Color
    - Working with background color (current) [D]
    - Code Challenge: Applying inline styles
    - Summary
  - Lesson 3 - Inline, Internal and External CSS
  - Unit 6 - Feedback and Iteration (Client)
  - Unit 7 - Solve a Problem, Serve a Purpose
  - Unit 8 - Advanced CSS and Responsive Web Design
  - Unit 9 - Introduction to JavaScript
    - Lesson 1 - What is JavaScript and why is it importa...
    - Lesson 2 - Basics of JavaScript: Input and output
    - What is Input and Output?
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    - Input: HTML button tag and the onClick event...
    - What is an HTML Event attribute?
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    - Using JavaScript to modify HTML
    - Code Challenge: JavaScript and HTML
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Content

Hide Table of Contents Lesson 2 - Basic CSS properties: Co...

```

<!DOCTYPE html>
<html>
 <head>
 <title>Fun with Color</title>
 </head>
 <body>
 <h1>Fun with color!</h1>
 <p style="color:red;">RED</p>
 <p style="color:orange;">ORANGE</p>
 <p style="color:yellow;background:tan;">TAN</p>
 <p style="color:green;">GREEN</p>
 <p style="color:blue;">BLUE</p>
 <p style="color:purple;">PURPLE</p>
 </body>
</html>

```

A high contrast between text color and background color makes the text more readable.

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  - Unit 4 - Styling with HTML
    - Lesson 1 - HTML Beyond the Basics
    - Lesson 2 - HTML Lists
    - Lesson 3 - Embedding Images: Relative & Absolute
    - Lesson 4 - Accessibility in Web Design
  - Unit 5 - Introduction to CSS
    - Lesson 1 - What is CSS?
    - Lesson 2 - Basic CSS properties: Color, font-size, fo...
    - Why have three different ways to style wit... [D]
    - Internal CSS
    - External CSS
    - Cascading CSS
    - Code Challenge: Adding internal styles to you...
    - Summary
  - Unit 6 - Feedback and Iteration (Client)
  - Unit 7 - Solve a Problem, Serve a Purpose
  - Unit 8 - Advanced CSS and Responsive Web Design
  - Unit 9 - Introduction to JavaScript
  - Unit 10 - Feedback and Iteration (Community Client)
  - Unit 11 - Recap, Reflect, and Next Steps

Content

Hide Table of Contents Lesson 3 - Inline, Internal and External CSS

get harder to read and edit. You may also want to apply the same style attributes to several elements or even the entire web page. We can use "internal" CSS for that.

### Check Your Understanding

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

**Instructions:** Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

What is the primary purpose of using CSS (Cascading Style Sheets) in web design?

To add content to the web pages.  
 To style and layout HTML elements.  
 To speed up the loading time of web pages.  
 To create the structure of web pages.

Correct!

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    - Lesson 2 - Basic CSS properties: Color, font-size, fo...
  - Lesson 3 - Inline, Internal and External CSS
    - Why have three different ways to style with C...
    - Internal CSS (current)
    - External CSS
    - Cascading CSS
    - Code Challenge: Adding internal styles to you...
    - Summary
  - Unit 6 - Feedback and Iteration (Client)
  - Unit 7 - Solve a Problem, Serve a Purpose
  - Unit 8 - Advanced CSS and Responsive Web Design
  - Unit 9 - Introduction to JavaScript
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  - Lesson 2 - Basics of JavaScript: Input and output
    - What is Input and Output?
    - Fun with Functions
    - Input: HTML button tag and the onClick event...
    - What is an HTML Event attribute?
    - Code Challenge: Input and Output
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  - Lesson 3 - JavaScript and HTML
    - Why do we need to use HTML and JavaScript tog...
    - Using JavaScript to modify HTML
    - Code Challenge: JavaScript and HTML
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- Unit 10 - Feedback and Iteration (Community Client)

Content

Hide Table of Contents Lesson 3 - Inline, Internal and External CSS

```

background-image: url('VSCODE FOR EDUCATION: TABLE OF CONTENTS');
background-size: cover;
background-position: center;
}
h1 {
 color: red;
}
p {
 color: blue;
 font-size: 14px;
 font-family: Arial, Helvetica;
}
</style>
</head>
<body>
<h1>sample text</h1>
<p>more sample text</p>
<p>even more sample text</p>
</body>
</html>

```

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VS CODE FOR EDUCATION: TABLE OF CONTENTS

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  - Unit 5 - Introduction to CSS
    - Lesson 1 - What is CSS?
    - Lesson 2 - Basic CSS properties: Color, font-size, fo...
  - Lesson 3 - Inline, Internal and External CSS
    - Why have three different ways to style with C...
    - Internal CSS (current)
    - External CSS (current)
    - Cascading CSS
    - Code Challenge: Adding internal styles to you...
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  - Unit 6 - Feedback and Iteration (Client)
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  - Lesson 2 - Basics of JavaScript: Input and output
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    - Fun with Functions
    - Input: HTML button tag and the onClick event...
    - What is an HTML Event attribute?
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Content

Hide Table of Contents Lesson 3 - Inline, Internal and External CSS

The `<link>` tag used for external CSS is placed in which part of the HTML document?

At the end of the HTML document.

At the beginning of the `<body>` section.

Inside each HTML element being styled.

Within the `<head>` section.

Correct!

One reason to use external CSS is...

It increases the download time for each web page

It allows for better performance with caching.

It's easier to use for small, one-time changes.

To avoid using HTML altogether.

Correct!

# style.css

```

<!-- Place your HTML code below this comment. Has
2
</pre>

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```

## Unit 6:

The screenshot shows a dark-themed web application interface. On the left, there's a sidebar titled "VS CODE FOR EDUCATION: TABLE OF CONTENTS" with a graduation cap icon. The sidebar lists various sections: Intro to Web Development, Unit 1 - The Web and Web Development, Unit 2 - Design and Design Thinking, Unit 3 - Client Project, Unit 4 - Styling with HTML, Unit 5 - Introduction to CSS, Unit 6 - Feedback and Iteration (Client), Lesson 1 - Feedback and Iteration, The Design Thinking Process: A review, Testing Phase (current) (highlighted with a blue border), Code Challenge: Feedback and Iteration, Summary, Lesson 2 - Adding and Styling Links, Lesson 3 - Polishing Your Web Page, Lesson 4 - Gathering Feedback From a Client, Unit 7 - Solve a Problem, Serve a Purpose, Unit 8 - Advanced CSS and Responsive Web Design, Unit 9 - Introduction to JavaScript, Lesson 1 - What is JavaScript and why is it important, Lesson 2 - Basics of JavaScript: Input and output, What is Input and Output?, Fun with Functions, Input: HTML button tag and the onClick event..., What is an HTML event attribute?, Code Challenge: Input and Output, Summary, Lesson 3 - JavaScript and HTML, Why do we need to use HTML and JavaScript tog..., Using JavaScript to modify HTML, Code Challenge: JavaScript and HTML, Summary, Unit 10 - Feedback and Iteration (Community Client), and Unit 11 - Recap, Reflect, and Next Steps.

The main content area has a header "Content" and a "Lesson 1 - Feedback and Iteration". It includes a "Hide Table of Contents" button and a text input field with placeholder text: "User reviews comment upon design, readability, and functionality of the webpage. The general commentaries are about aesthetics, text quality, and navigation. I will test variations such as font size or...". A character counter "41 characters remaining" is shown. Below this is a "Change answer" button and a section titled "Were there similarities in their responses?" containing a text input field with placeholder text: "Yes, they would make identical remarks, that is, visual appeal, text readability, or navigation with repetitive praise or criticism of specific features such as colour schemes or clarity of organization." and a character counter "197 characters remaining".

At the bottom of the main content area are "Back", "Give Feedback", and "Next" buttons.

This screenshot is nearly identical to the one above, showing the same sidebar and main content area. The main content area has a header "Content" and a "Lesson 1 - Feedback and Iteration". It includes a "Hide Table of Contents" button and a text input field with placeholder text: "User reviews comment upon design, readability, and functionality of the webpage. The general commentaries are about aesthetics, text quality, and navigation. I will test variations such as font size or...". A character counter "41 characters remaining" is shown. Below this is a "Change answer" button and a section titled "Were there similarities in their responses?" containing a text input field with placeholder text: "Yes, they would make identical remarks, that is, visual appeal, text readability, or navigation with repetitive praise or criticism of specific features such as colour schemes or clarity of organization." and a character counter "197 characters remaining".

At the bottom of the main content area are "Back", "Give Feedback", and "Next" buttons.

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- Lesson 1 - Feedback and Iteration (Client)
  - Lesson 2 - Adding and Styling Links
    - Why use links?
    - Types of links
    - Adding Links
    - Styling Links (current)**
    - Code Challenge: Add a Link
    - Summary
  - Lesson 3 - Polishing Your Web Page
  - Lesson 4 - Gathering Feedback From a Client
  - Unit 7 - Solve a Problem, Serve a Purpose
  - Unit 8 - Advanced CSS and Responsive Web Design
- Unit 9 - Introduction to JavaScript
  - Lesson 1 - What is JavaScript and why is it important?
  - Lesson 2 - Basics of JavaScript: Input and output
    - What is Input and Output?
    - Fun with Functions
    - Input: HTML button tag and the onClick event...
    - What is an HTML event attribute?
    - Code Challenge: Input and Output
  - Summary
- Lesson 3 - JavaScript and HTML
  - Why do we need to use HTML and JavaScript together?
  - Using JavaScript to modify HTML
  - Code Challenge: JavaScript and HTML
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## Content

Hide Table of Contents Lesson 2 - Adding and Styling Links

### 💡 Styling Links

We all are so used to links that you may not have noticed a few of their default style settings. If you don't style your links, they will appear like so:

- The text of all links appear as underlined.
- The text of 'unvisited' links will appear blue.
- The moment a user clicks on a link the text of the 'active' link will appear red.
- Once you have 'visited' a link, the text will appear purple.

You can change the way your links appear using CSS style properties.

You can change whether the link text is underlined or not. You can also change the color of the link text. You can also code for the link text to be a different color when a cursor is 'hovered over' the link.

Try out the example below...

Back Give Feedback Next

```
styling.html
1 <!DOCTYPE html>
2 <head>
3 <style>
4 a:link{
5 color: red;
6 background-color: transparent;
7 text-decoration-line: underline;
8 }
9 a:hover{
10 color: green;
11 background-color: aqua;
12 text-decoration-line: none;
13 }
14 a:visited{
15 color: pink;
16 background-color: blue;
17 text-decoration-line: overline;
18 }
19 a:active{
20 color: chartreuse;
21 background-color: aqua;
22 text-decoration-line:none;
23 }
24 </style>
25 </head>
26 <body>
27 <a href="https://www.bilibili.com" target=
28
29
```

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- Lesson 1 - Feedback and Iteration (Client)
  - Lesson 2 - Adding and Styling Links
    - About Your Web Page
    - Using Favicons
    - Styling Images (current)**
    - HTML Span Tags
    - Code Challenge: Polishing Your Web Page
    - Summary
  - Lesson 4 - Gathering Feedback From a Client
  - Unit 7 - Solve a Problem, Serve a Purpose
  - Unit 8 - Advanced CSS and Responsive Web Design
- Unit 9 - Introduction to JavaScript
  - Lesson 1 - What is JavaScript and why is it important?
  - Lesson 2 - Basics of JavaScript: Input and output
    - What is Input and Output?
    - Fun with Functions
    - Input: HTML button tag and the onClick event...
    - What is an HTML event attribute?
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- Lesson 3 - JavaScript and HTML
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  - Summary

## Content

Hide Table of Contents Lesson 3 - Polishing Your Web Page

```
border-width: 4px 8px 16px 25px;
border-style: dotted dashed solid;
border-color: purple red orange;
border-radius: 5px 25px 50px 100px;
width: 200px;
height: 200px;
}
</style>
</head>
<body>
 <p>Example image with 'fancy' border styling</p>

</body>
```

The code above produces the border below:

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```
<!DOCTYPE html>
<head>
 <title>Fancy Image Border Styling</title>
<style>
 img {
 border-width: 4px 8px 16px 25px;
 border-style: dotted dashed solid double;
 border-color: purple red orange;
 border-radius: 5px 25px 50px 100px;
 width: 200px;
 height: 200px;
 }
</style>
</head>
<body>
 <p>Example image with 'fancy' border styling</p>

</body>
```

The screenshot shows a Microsoft Edge browser window with three tabs open:

- VS CODE FOR EDUCATION: TABLE OF CONTENTS**: The left sidebar displays a hierarchical table of contents for web development, including sections like "Intro to Web Development", "Unit 3 - Client Project", and "Lesson 3 - Polishing Your Web Page".
- Content**: The main content area shows a snippet of HTML code with a "Copy" button.
- span-tag.html**: The rightmost tab shows the raw HTML code for a page titled "The HTML span tag". It includes a CSS style block for a blue font and a paragraph with a span element containing a green link.

The central content area contains the following HTML and CSS code:

```
<!-- Place your HTML code below this comment. -->
<!DOCTYPE html>
<head>
 <title>The HTML span tag</title>
 <style>
 p {
 color: blue;
 font-size: 14px;
 font-weight: bold;
 }
 </style>
</head>
<body>
 <h1>The HTML span tag</h1>
 <p>
 >Come to our next event on
 our neighborhood

 </p>
</body>
```

Below the code, there are "Back", "Give Feedback", and "Next" buttons.

## Unit 7:

The screenshot shows a web browser window titled "VS CODE FOR EDUCATION: TABLE OF CONTENTS" with a sidebar containing a table of contents for a course. The main content area is titled "Lesson 1 - United Nations & Global Goals" and features the heading "What are the Global Goals?". Below the heading, it says "The 17 United Nations Global Goals (Sustainable Development Goals or SDGs) are:" followed by a numbered list of goals from 1 to 8. At the bottom of the page are "Back", "Give Feedback", and "Next" buttons.

**What are the Global Goals?**

The 17 United Nations Global Goals (Sustainable Development Goals or SDGs) are:

1. **No Poverty:** End poverty in all its forms everywhere.
2. **Zero Hunger:** End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.
3. **Good Health and Well-being:** Ensure healthy lives and promote well-being for all at all ages.
4. **Quality Education:** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
5. **Gender Equality:** Achieve gender equality and empower all women and girls.
6. **Clean Water and Sanitation:** Ensure availability and sustainable management of water and sanitation for all.
7. **Affordable and Clean Energy:** Ensure access to affordable, reliable, sustainable, and modern energy for all.
8. **Decent Work and Economic Growth:** Promote sustained, inclusive, and sustainable economic growth, full

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This screenshot shows the continuation of the SDG list from the previous page. It includes goals 9 through 17, each with a brief description. The layout is identical to the first page, with a sidebar, a main content area, and navigation buttons at the bottom.

**What are the Global Goals?**

The 17 United Nations Global Goals (Sustainable Development Goals or SDGs) are:

9. **Industry, Innovation, and Infrastructure:** Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.
10. **Reduced Inequality:** Reduce inequality within and among countries.
11. **Sustainable Cities and Communities:** Make cities and human settlements inclusive, safe, resilient, and sustainable.
12. **Responsible Consumption and Production:** Ensure sustainable consumption and production patterns.
13. **Climate Action:** Take urgent action to combat climate change and its impacts.
14. **Life Below Water:** Conserve and sustainably use the oceans, seas, and marine resources for sustainable development.
15. **Life on Land:** Protect, restore, and promote sustainable use of terrestrial ecosystems, manage forests sustainably, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
16. **Peace, Justice, and Strong Institutions:** Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels.
17. **Partnerships for the Goals:** Strengthen the means of implementation and revitalize the global partnership

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  - Unit 7 - Solve a Problem, Serve a Purpose
- Lesson 1 - United Nations & Global Goals
  - Introduction to the Global Goals
  - What are the Global Goals?
  - Applying the Global Goals (current)
  - Summary
- Lesson 2 - Apply Design Thinking
- Unit 8 - Advanced CSS and Responsive Web Design
- Unit 9 - Introduction to JavaScript
- Unit 10 - Feedback and Iteration (Community Client)
- Unit 11 - Recap, Reflect, and Next Steps

Content

Hide Table of Contents

Lesson 1 - United Nations & Global Goals

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

**Instructions:** Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Choose a goal that interests you and explore that goal's specific targets. Check out the resources and calls to action for that specific goal. While on the SDG site, take some time to appreciate the design and structure of the website.

- What elements are there that you recognize as ones you now know how to design and code?
- What elements or features are ones you would like to add to your own future web designs?

I chose SDG 3: Good Health and Well-Being, targeting maternal mortality reduction and universal health coverage. Resources include WHO's health statistics and UNICEF's child health programs. Calls to action

33 characters remaining

Thank you for providing your response.

Change answer

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  - Unit 6 - Feedback and Iteration (Client)
  - Unit 7 - Solve a Problem, Serve a Purpose
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- Lesson 2 - Apply Design Thinking
  - Promotion!
  - Apply Design Thinking (current)
  - Code Challenge: Create a Community Web Pa...
  - Summary
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Content

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Lesson 2 - Apply Design Thinking

- Action: Summarize the notes from your interview and interactions with the community member(s). Create a define statement with the format 'The community needs \_\_\_\_\_ (the need) in order to \_\_\_\_\_ (the underlying issue being addressed)'.

## Ideate

This is the brainstorming stage. Here, you as the designer are encouraged to generate a large quantity of ideas that might solve the defined problem. It's a stage for creativity and innovation. There are no 'good' ideas or 'bad' ideas in this stage. All ideas are considered. The focus is on the quantity of ideas over the quality of any idea.

- Action: Create a number of designs for your community website. Consider different design decisions and keep accessibility in mind.

## Prototype

This step involves creating scaled-down versions of the product or specific features found within the product. Prototyping is an experimental phase, where the aim is to identify the best possible solution for each of the problems identified during the previous three stages. Prototypes can be shared and tested within your design team or on a group of people outside the design team.

- Action: Using the skills and knowledge you have about HTML and CSS, create the basic website. You will be adding to this website in future lessons.

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## Unit 8:

The screenshot shows a web-based learning interface. On the left is a sidebar with a navigation tree for 'VS CODE FOR EDUCATION: TABLE OF CONTENTS'. The 'Styles Using Div and Class' section is currently selected. The main content area has a title 'Styles Using Div and Class'. Below it is a text block explaining the importance of website organization and the use of the `<div>` element. A code editor on the right shows the `style-div.html` file with CSS rules for styling divisions.

You've learned a lot about creating a website and styling its content. Since the content is what a user visits your website for, having that content presented in a way that is easy to understand and navigate is of utmost importance.

CSS style used with the `HTML <div>` element and the `HTML class attribute` can help you place and organize elements on a web page to organize your web page content and add to the look and feel of the page.

**What is a division?**

Let's start with the `HTML <div>` tag. The `<div>` tag is used in the body of your web page to designate a division or section of your web page.

**Why make a division?**

```
1 <!DOCTYPE html>
2 <head>
3 <title>Divisions</title>
4 <style>
5 div {
6 color: red;
7 background-color: yellow;
8 }
9 </style>
10 </head>
11 <body>
12 <h1>This heading is outside a division.</h1>
13 <div>
14 <h3>This heading is contained inside</h3>
15 <p>This paragraph is contained inside</p>
16 </div>
17 <h3>This heading is contained inside</h3>
18 <p>The div style applies to all the</p>
19 </div>
20 </body>
21 </html>
```

This screenshot shows the same learning interface, but the 'HTML Class Attribute' section is now selected in the sidebar. The main content area displays text about styling elements using both `<div>` and `class`. The code editor on the right shows the `html-class.html` file with CSS classes for 'bright' and 'dark' styles.

color: white;  
background-color: black;

`<style>`  
`</head>`

`<body>`

`<h1>Different elements can share the same style!</h1>`

`<h2 class="bright">This heading has the bright class</h2>`

`<p class="dark">This paragraph has the dark class</p>`

`<p>This paragraph is using the default style</p>`

`<h3 class="dark">This heading has the dark class</h3>`

`<p class="bright">This paragraph has the bright class</p>`

You can see how both the `HTML <div>` element and `HTML class attribute` can make it easier to style and make changes to different parts of your web page.

```
1 <!-- Place your HTML code below this comment. Here you can test your code before publishing it -->
2 <!DOCTYPE html>
3 <head>
4 <title>Divisions and class</title>
5 <style>
6 .bright {
7 color: red;
8 background-color: yellow;
9 }
10 .dark {
11 color: white;
12 background-color: black;
13 }
14 </style>
15 </head>
16 <body>
17 <h1>This heading is outside a division.</h1>
18 <div class="bright">
19 <h3>This heading is contained inside a division with the bright class</h3>
20 <p>This paragraph is contained inside the bright division</p>
21 </div>
22 <h3>This heading is contained inside another division</h3>
23 <p>This paragraph is outside a division.</p>
24 <div class="dark">
25 <h3>This heading is contained inside another division with the dark class</h3>
26 <p>This paragraph is contained inside the dark division</p>
27 </div>
28 </body>
</html>
```

VS CODE FOR EDUCATION: TABLE OF CONTENTS

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  - > Lesson 1 - Style Using div and class
  - > Lesson 2 - The Box Model and Positioning
    - The Box Model (current)
    - CSS Position Property
    - Code Challenge: Box and Positioning
    - Summary
  - > Lesson 3 - The Display Property and Positioning
  - > Lesson 4 - Responsive vs. Adaptive Design
  - > Unit 9 - Introduction to JavaScript
  - > Unit 10 - Feedback and Iteration (Community Client)
  - > Unit 11 - Recap, Reflect, and Next Steps

Content

Try running the code below:

```
html
<head>
<title>CSS Box Model</title>
<style>
div {
 width: 100px;
 height: 100px;
 padding: 20px;
 border: 5px solid black;
 margin: 10px;
}
</style>
</head>
<body>
<h3>Below is a simple example of the box model</h3>
<div>This is a box!</div>
<p>Above is a simple example of the box model</p>
</body>
</html>
```

Copy

Back Give Feedback Next

box-model.html

```
<!-- Place your HTML code below this comment. Hint: Copy and paste the code above -->
<!DOCTYPE html>
<head>
<title>CSS Box Model</title>
<style>
div {
 width: 100px;
 height: 100px;
 padding: 20px;
 border: 5px solid black;
 margin: 10px;
}
</style>
</head>
<body>
<h3>Below is a simple example of the box model</h3>
<div>This is a box!</div>
<p>Above is a simple example of the box model</p>
</body>
</html>
```

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Content

Try running the code below:

```
<style>
div {
 width: 125px;
 height: 125px;
 padding: 20px;
 border: 5px solid black;
 margin: 10px;
}
</style>
</head>
<body>
<h2>Here are examples of the 5 different types of positioning</h2>
<div style="position: sticky; top: 0;">This is a sticky position example</div>
<p>Experiment with the different values for position</p>
<div style="position: static;">This is a static position example</div>
<div style="position: relative; left: 80px;">This is a relative position example</div>
<div style="position: absolute; top: 100px; left: 200px;">This is an absolute position example</div>
<div style="position: fixed; bottom: 0; right: 0;">This is a fixed position example</div>
</body>
```

What do you notice about how each div moves as you scroll up and down the web page? Hint: click <div></div>

Back Give Feedback Next

css-position.html

```
<!-- Place your HTML code below this comment. Hint: Copy and paste the code above -->
<!DOCTYPE html>
<head>
<title>Positioning</title>
<style>
div {
 width: 125px;
 height: 125px;
 padding: 20px;
 border: 5px solid black;
 margin: 10px;
}
</style>
</head>
<body>
<h2>Here are examples of the 5 different types of positioning</h2>
<div style="position: sticky; top: 0;">This is a sticky position example</div>
<p>Experiment with the different values for position</p>
<div style="position: static;">This is a static position example</div>
<div style="position: relative; left: 80px;">This is a relative position example</div>
<div style="position: absolute; top: 100px; left: 200px;">This is an absolute position example</div>
<div style="position: fixed; bottom: 0; right: 0;">This is a fixed position example</div>
</body>
```

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- > Lesson 4 - Responsive vs. Adaptive Design
  - Understanding Responsive versus Adaptive Design
  - Creating Responsive Design
  - Creating Adaptive Design (current) [5]
  - Choosing Responsive versus Adaptive Design
  - Code Challenge: Responsive and Adaptive De...
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**Content**

Hide Table of Contents Lesson 4 - Responsive vs. Adaptive Design

480px ) targets mobile devices. It adjusts padding and font size for smaller screens and changes the background color of the content area when the screen width is less than or equal to 480 pixels.

## Header and footer

You noticed we used two 'new' tags `<header>` and `<footer>` in our example code above. These two elements serve much the same purpose as the header and footer in a word processing application you may have used to write a school paper. The header appears at the top of the page and the footer at the bottom of the page. The information in a header is introductory and on a web page may include navigation links. The footer on a web page may contain contact information, copyright information, and terms of use statements or links.

Both the `<header>` and the `<footer>` are block elements by default.

**Back** **Give Feedback** **Next**

```

1 <!DOCTYPE html>
2 <html>
3 <head>
4 <title>Adaptive Design Example</title>
5 <style>
6 body {
7 font-family: Arial, sans-serif;
8 }
9
10 header,
11 .content,
12 footer {
13 padding: 20px;
14 text-align: center;
15 }
16
17 /* Default style for desktop */
18 header {
19 background-color: #skyblue;
20 }
21
22 .content {
23 background-color: #lightgray;
24 }
25
26 footer {
27 background-color: #lightcoral;
28
```

VS CODE FOR EDUCATION: TABLE OF CONTENTS

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- > Lesson 1 - Style Using div and class
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  - What is the CSS display property?
  - Explore Values (current) [5]
  - Code Challenge: Display Property and Positio...
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**Content**

Hide Table of Contents Lesson 3 - The Display Property and Positioning

## display: grid

Elements with display value 'grid' appear in a grid-based layout system.

Try running this code:

```

html
Copy

<div style="display: grid; grid-template-columns: 1fr 1fr">
 <div style="background-color: lightblue;"></div>
 <div style="background-color: lightgreen;"></div>
 <div style="background-color: lightcoral;"></div>
 <div style="background-color: lightyellow;"></div>
 <div style="background-color: lightgrey;"></div>
 <div style="background-color: lightpink;"></div>
</div>

```

The elements with a display value of 'grid' appear in a grid of rows and columns.

- Try changing the width of your browser window to

**Back** **Give Feedback** **Next**

```

1 <!-- Place your HTML code below this comment. Have fun! -->
2 <!DOCTYPE html>
3 <head>
4 <title>Block elements</title>
5 <style>
6 div {
7 color: #red;
8 background-color: #yellow;
9 }
10 </style>
11 </head>
12
13 <body>
14 <div>Block element 1</div>
15 <div>Block element 2</div>
16 <div>Block element 3</div>
17 </body>

```

VS CODE FOR EDUCATION: TABLE OF CONTENTS

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    - Understanding Responsive versus Adaptive Design
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    - Summary
  - Unit 9 - Introduction to JavaScript
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Content

Hide Table of Contents Lesson 4 - Responsive vs. Adaptive D

html

```
<style>
 .container {
 width: 100%;
 }

 .column {
 float: left;
 width: 33.33%; /* 100% divided by 3 */
 }
</style>
<div class="container">
 <div class="column">column 1</div>
 <div class="column">column 2</div>
 <div class="column"> column 3 </div>
</div>
```

Try increasing and decreasing the width of the browser window to see how the columns respond to the change in window width. Using percentages instead of pixels

Back Give Feedback Next

responsive.html X

```
1 <!-- Place your HTML code below this comment. Ha
2 <!DOCTYPE html>
3 <head>
4 <body>
5 <style>
6 .container {
7 width: 100%;
8 }
9
10 .column {
11 float: left;
12 width: 33.33%; /* 100% divided by 3 */
13 }
14 </style>
15 <div class="container">
16 <div class="column">column 1</div>
17 <div class="column">column 2</div>
18 <div class="column"> column 3 </div>
19 </div>
20 </body>
21 </head>
```

VS CODE FOR EDUCATION: TABLE OF CONTENTS

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Content

Hide Table of Contents Lesson 4 - Responsive vs. Adaptive D

header

```
header {
 padding: 10px;
 font-size: 14px;
}

.content {
 background-color: lightblue;
}

.content p {
 font-size: 12px;
}
```

content

```
<header>My Website Header</header>
<div class="content">
 <p>Welcome to my website. This
 </div>
<footer>Website Footer</footer>
```

Back Give Feedback Next

adaptive.html X

```
2 <html>
3 <head>
4 <style>
5 @media (max-width: 768px) {
6 header {
7 padding: 10px;
8 font-size: 14px;
9 }

10 .content {
11 background-color: lightblue;
12 }

13 .content p {
14 font-size: 12px;
15 }
16 }
17 </style>
18 </head>
19
20 <body>
21 <header>My Website Header</header>
22 <div class="content">
23 <p>Welcome to my website. This
24 </div>
25 <footer>Website Footer</footer>
26 </body>
27 </html>
```

/\* Style for mobile devices \*/

```
@media (max-width: 480px) {
 header,
 footer {
 padding: 10px;
 font-size: 14px;
 }

 .content {
 background-color: lightpink;
 }
}
```

VS CODE FOR EDUCATION: TABLE OF CONTENTS

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Hide Table of Contents

Lesson 4 - Responsive vs. Adaptive Design

you want a single, fluid design that adjusts to any screen size.

you have a content-heavy site

optimal user experience across many devices is a priority.

Choose Adaptive Design when:

- you want to tailor the user experience for specific devices or screen sizes
- your control over the design on specific devices is essential.

Understanding responsive and adaptive design is key in modern web design. Remember, the choice between responsive and adaptive design depends on your specific needs and the user experience you want to create. Ultimately, you want to design and create a seamless user experience across different types of devices the user may use. As technology continues to evolve, the ability to create websites that provide excellent user experiences on any device is not just desirable but essential.

Whichever design you choose, remember to consider the importance of accessibility. Think about how your design decisions can improve user experience and access to information.

Revisit your list of websites! Now that you know about these two different types of design, revisit the websites on your favorites/most often visited list. If you can, view the same website on differently sized devices: mobile phone, tablet, laptop, desktop computer.

Can you tell whether each site is using responsive or adaptive design?

Back Give Feedback Next

## Unit 9:

The screenshot shows a dark-themed web application interface. On the left, a sidebar titled "VS CODE FOR EDUCATION: TABLE OF CONTENTS" lists various units and lessons. The "Intro to Web Development" section is expanded, showing "Lesson 1 - What is JavaScript? (current)" highlighted with a blue border. The main content area is titled "Content" and displays "Lesson 1 - What is JavaScript and why is it important in web design?". A green box at the top right says "Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson." Below this, instructions advise reviewing each question and answers, then selecting the best answer or entering a response. A text input field contains the message: "Let's go back to your original list of website's that you often visit. Look for interactivity on the sites that may be coded using JavaScript. Using the Developer's Tools, search for the code that creates and manages the interactive elements you find. What do you notice about the code? What do you notice about the interactivity?". A character counter indicates "12 characters remaining". Below the input field, a "Change answer" button is visible. At the bottom, there are "Back", "Give Feedback", and "Next" buttons.

This screenshot shows the same learning platform. The sidebar and main content area are identical to the previous screenshot, but the text input field now contains a different message: "When examining the websites with interactive elements through Developer's Tools, I noticed that many use JavaScript to manage user interactions. For example, buttons, forms, and animations are often powered by JavaScript". The "Change answer" button is still present. The "Back", "Give Feedback", and "Next" buttons are at the bottom.

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- Lesson 1 - What is JavaScript and why is it important?
- Lesson 2 - Basics of JavaScript: Input and Output
  - What is Input and Output?
  - Fun with Functions (current)
  - Input: HTML button tag and the onClick event?
  - What is an HTML event attribute?
  - Code Challenge: Input and Output
- Summary
- Lesson 3 - JavaScript and HTML
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Content

Hide Table of Contents Lesson 2 - Basics of JavaScript: Input

The response from the website

New data entered by a user

A message displayed on a web page

Correct!

In the context of web development, which of the following is considered output?

New data entered by a user

Interactable buttons

Data that is displayed by the website to the user

Interactive buttons

Correct!

In HTML, where should JavaScript code be placed?

In a separate CSS file

Back Give Feedback Next

```
alert.html
1 <!-- Place your HTML code below this comment. Ha
2 <!DOCTYPE HTML>
3 <html>
4 <head>
5 <title>Hello world</title>
6 </head>
7 <body>
8 <script>
9 alert('Hello world!');
10 </script>
11 </body>
12 </html>
```

VS CODE FOR EDUCATION: TABLE OF CONTENTS

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- Lesson 1 - What is JavaScript and why is it important?
- Lesson 2 - Basics of JavaScript: Input and Output
  - What is Input and Output?
  - Fun with Functions
  - Input: HTML button tag and the onClick e... [x]
  - What is an HTML event attribute?
  - Code Challenge: Input and Output
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Content

Hide Table of Contents Lesson 2 - Basics of JavaScript: Input

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

How can you make a button control your JavaScript code?

By giving an HTML button the onClick attribute with a function name for its value

By creating a function in JavaScript called onClick()

By using the <button> tag in HTML

By using the <script> tag in HTML

Correct!

Back Give Feedback Next

```
html-button.html
1 <!-- Place your HTML code below this comment. Ha
2 <!DOCTYPE HTML>
3 <html>
4 <head>
5 <body>
6 <button type="button">Click me!</but
7 </body>
8 </head>
9 </html>
```

VS CODE FOR EDUCATION: TABLE OF CONTENTS

- Intro to Web Development
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  - Unit 3 - Client Project
  - Unit 4 - Styling with HTML
  - Unit 5 - Introduction to CSS
  - Unit 6 - Feedback and Iteration (Client)
  - Unit 7 - Solve a Problem, Serve a Purpose
  - Unit 8 - Advanced CSS and Responsive Web Design
  - Unit 9 - Introduction to JavaScript
    - Lesson 1 - What is JavaScript and why is it important?
    - Lesson 2 - Basics of JavaScript: Input and output
      - What is Input and Output?
      - Fun with Functions
      - Input: HTML button tag and the onClick event...
      - What is an HTML event attribute? (current)
    - Code Challenge: Input and Output
  - Summary
  - Lesson 3 - JavaScript and HTML
  - Unit 10 - Feedback and Iteration (Community Client)
  - Unit 11 - Recap, Reflect, and Next Steps

Content

Hide Table of Contents Lesson 2 - Basics of JavaScript: Input move on to the next page of the lesson.

Instructions: Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

If greeting() is a JavaScript function that displays "Hello world!", which of the following HTML buttons will correctly call the function and cause the user to see "Hello world!" when they click it?

- <button onClick="greeting()">Click here</button>
- <button onClick="function('Hello world!')>Greeting</button>
- <button onClick="Hello world!">Click here</button>

Correct!

Back Give Feedback Next

event.html

```
<!-- Place your HTML code below this comment. -->
<!DOCTYPE HTML>
<html>
 <head>
 <body>
 <button onClick="alert('Hello World!')">Click here</button>
 </body>
 </html>
```

VS CODE FOR EDUCATION: TABLE OF CONTENTS

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  - Unit 9 - Introduction to JavaScript
    - Lesson 1 - What is JavaScript and why is it important?
    - Lesson 2 - Basics of JavaScript: Input and output
      - Why do we need to use HTML and JavaScript together?
      - Using JavaScript to modify HTML (current)
    - Code Challenge: JavaScript and HTML
  - Summary
  - Unit 10 - Feedback and Iteration (Community Client)
  - Unit 11 - Recap, Reflect, and Next Steps

Content

Hide Table of Contents Lesson 3 - JavaScript and HTML

Which of the following statements is true about using JavaScript to update HTML?

- You must specify which element to access when using innerHTML.
- The keyword innerHTML is the only way to modify text using JavaScript.
- JavaScript must reload the page in order to render new updates to HTML.
- HTML can't be updated using JavaScript alone.

Correct!

How does JavaScript determine which HTML element to update when using getElementById(meow)?

- It uses the first element with the class "meow".
- It uses the first element with the name attribute "meow".

Back Give Feedback Next

use-js-html.html

```
<!-- Place your HTML code below this comment. -->
<!DOCTYPE HTML>
<html>
 <head>
 <body>
 <p id="hello">Hello world!</p>
 <script>
 document.getElementById('hello').innerHTML = 'Meow!';
 </script>
 </body>
 </html>
```

The screenshot shows a web-based learning interface for a course titled "VS CODE FOR EDUCATION: TABLE OF CONTENTS". The main content area is titled "Content" and displays "Lesson 3 - JavaScript and HTML". A sidebar on the left lists various lessons and units. The main content area contains a question about the `innerHTML` attribute and a code editor window showing a snippet of HTML and JavaScript. The code editor has the following content:

```
<! -- Place your HTML code below this comment. -->
<DOCTYPE HTML>
<head>
<body>
<p id="hello">Hello world!</p>
<script>
document.getElementById('hello').in
</script>
</body>
</head>
```

The screenshot shows a continuation of the learning interface. The sidebar on the left remains the same, listing various lessons and units. The main content area is titled "Content" and displays "Lesson 3 - JavaScript and HTML". A section titled "Code Challenge: JavaScript and HTML" is present. The text reads: "Now that we understand how JavaScript is finding the element and how JavaScript is changing the element, the lesson is almost complete!" It then says: "All that's left is to take the JavaScript code and turn it into a function. Then, we can make a button and attach our new function to the button using onClick. That way, when the user loads the web page, they'll be greeted with "Hello World!"—and only after clicking the button will the user see :)." Below this, a note says: "Since we covered buttons and functions in the previous lesson, why not stop here and see if you can figure it out?" and "Here's a hint: You will need to modify both the HTML and the JavaScript code!" At the bottom, it asks: "How did you do? Now that you know how to make interactive buttons and how to change the text of a web page, you're well on your way to making dynamic sites with JavaScript!"

## Unit 10:

The screenshot shows a dark-themed interface for a web-based learning platform. On the left, a sidebar titled "VS CODE FOR EDUCATION: TABLE OF CONTENTS" lists various units and lessons. The "Lesson 1 - Applying HTML, CSS, and JavaScript to..." section is currently selected. The main content area displays a lesson titled "Lesson 1 - Applying HTML, CSS, and JavaScript to craft a complete web page". It includes instructions: "Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer." Below this are two questions with multiple-choice answers.

**What is the main HTML document of a website usually named?**

- home.html
- main.html
- index.html
- root.html

**Correct! The main HTML document of a website is usually named index.html.**

**Where should the external CSS file be linked in an HTML document?**

- In the <head> section
- After the HTML closing tag
- At the end of the <body> section
- At the beginning of the <body> section

**Back** **Give Feedback** **Next**

This screenshot shows the same learning platform interface, but the current lesson is "Lesson 1 - Applying HTML, CSS, and JavaScript to...". The main content area displays a question about where an external CSS file should be linked in an HTML document.

**Where should the external CSS file be linked in an HTML document?**

- In the <head> section
- After the HTML closing tag
- At the end of the <body> section
- At the beginning of the <body> section

**Correct! The external CSS file should be linked in the <head> section of an HTML document.**

Below this, another question is shown:

**Where are image files typically stored in a well-organized website folder structure?**

- In a subdirectory named images
- Inside the JavaScript folder
- Alongside the CSS files
- In the root directory

**Correct! Image files are typically stored in a subdirectory named images.**

**Back** **Give Feedback** **Next**

The screenshot shows a web-based learning interface for 'VS CODE FOR EDUCATION'. The left sidebar displays a 'TABLE OF CONTENTS' with sections like 'Intro to Web Development', 'Lesson 2 - Implementing navigation', and 'Unit 11 - Recap, Reflect, and Next Steps'. The main content area is titled 'Lesson 2 - Implementing navigation' and features a heading 'Navigation Bars and Websites'. A green box at the top right says 'It's time to create a navigation bar for your website!'. Below it, a section titled 'Instructions' contains the text: 'Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.' A text input field with placeholder text 'Visit some of the sites from your list of favorite/often visited websites. Do they have navigation bars? How were they formatted? What other pages of the site do they link to?' is shown. A note below it says 'Many of my frequently visited sites, like Wikipedia and BBC, have navigation bars—horizontal menus at the top linking to key sections (e.g., Home, News, About). Some use dropdown menus for subpages. Formatting...' A red box highlights the note about horizontal menus. A text input field with the placeholder '16 characters remaining' is present. A message box says 'Thank you for providing your response' with a 'Change answer' button. Navigation buttons 'Back', 'Give Feedback', and 'Next' are at the bottom.

This screenshot shows the continuation of the 'Lesson 2 - Implementing navigation' lesson. The left sidebar remains the same. The main content area now displays a code editor with 'script.js' and '# style.css' files. The 'style.css' file contains the following CSS:2 <html>  
3 <head>  
5 <style>  
4 text-align: center;  
22 padding: 14px 16px;  
23 text-decoration: none;  
24 }  
26 nav ul li a:hover {  
27 background-color: red;  
28 }  
29 </style>  
30 </head>A preview window shows a simple navigation bar with three links: 'Home', 'About', and 'Contact'. A note on the left says 'Increases the gap between list items' with a green box containing 'Aligns the list items horizontally'. Another note says 'Positions the list items at the bottom of the navigation bar'. A message box says 'Correct! The float property aligns the list items horizontally.' A note below it asks 'To create a horizontal navigation bar, which CSS property is commonly used for list items?' with a green box containing 'display: inline;'. A note at the bottom says 'Correct! The display property with a value of inline is commonly used for list items in a horizontal navigation bar.' Navigation buttons 'Back', 'Give Feedback', and 'Next' are at the bottom.

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  - Unit 7 - Solve a Problem, Serve a Purpose
  - Unit 8 - Advanced CSS and Responsive Web Design
  - Unit 9 - Introduction to JavaScript
- Lesson 1 - Applying HTML, CSS, and JavaScript to c...
  - What is a navigation bar?
  - How do you create a navigation bar?
  - How do you style the navigation bar?
  - How do you link to different pages on your site?
- Lesson 2 - Implementing navigation
  - Code Challenge: Implementing Navigation
  - Summary
- Lesson 3 - Design Considerations and Best Practices
  - What are the principles of web design?
  - Principle: Visual Hierarchy
  - Principle: Consistency in Design
  - Principle: Navigability
  - Principle: Color Theory and Typography
  - Code Challenge: HTML, CSS and JavaScript
- Summary
- Unit 11 - Recap, Reflect, and Next Steps

Content

Hide Table of Contents Lesson 2 - Implementing navigation

**Instructions:** Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Which of the following files could be in the same folder as the index.html file for navigation purposes? Select all that apply.

about.html

Correct! The about.html file could be in the same folder as the index.html file for navigation purposes.

script.js

Correct! The script.js file could be in the same folder as the index.html file for navigation purposes.

style.css

Correct! The style.css file could be in the same folder as the index.html file for navigation purposes.

Back Give Feedback Next

script.js # style.css index.html

```
<!DOCTYPE html>
<html>
 <head>
 <title>This text will appear in the browser</title>
 </head>
 <body>
 <h1>Your heading goes here.</h1>
 <p>Your content goes here.</p>
 </body>
</html>
```

VS CODE FOR EDUCATION

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  - Unit 7 - Solve a Problem, Serve a Purpose
  - Unit 8 - Advanced CSS and Responsive Web Design
  - Unit 9 - Introduction to JavaScript
- Lesson 1 - Applying HTML, CSS, and JavaScript to c...
  - What are the principles of web design?
  - Principle: Visual Hierarchy (current)
  - Principle: Consistency in Design
  - Principle: Navigability
  - Principle: Color Theory and Typography
  - Code Challenge: HTML, CSS and JavaScript
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  - Principle: Visual Hierarchy
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  - Principle: Navigability
  - Principle: Color Theory and Typography
  - Code Challenge: HTML, CSS and JavaScript
- Summary
- Unit 11 - Recap, Reflect, and Next Steps

Content

Hide Table of Contents Lesson 3 - Design Considerations and Best Practices

elements, in a bright or contrasting color, and placed at the top or center of the page?

**Check Your Understanding**

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

**Instructions:** Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Match the term to its definition.

The use of larger elements, bright colors, and strategic placement on the page are methods to achieve \_\_\_\_\_.  
visual hierarchy

Correct!

Back Give Feedback Next

script.js # style.css index.html

```
<!DOCTYPE html>
<html>
 <head>
 <title>This text will appear in the browser</title>
 </head>
 <body>
 <h1>Your heading goes here.</h1>
 <p>Your content goes here.</p>
 </body>
</html>
```

VS CODE FOR EDUCATION

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  - Unit 7 - Solve a Problem, Serve a Purpose
  - Unit 8 - Advanced CSS and Responsive Web Design
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- Lesson 2 - Implementing navigation
- Lesson 3 - Design Considerations and Best Practices
  - What are the principles of web design?
  - Principle: Visual Hierarchy
  - Principle: Consistency in Design (current)
  - Principle: Navigability
  - Principle: Color Theory and Typography
  - Code Challenge: HTML, CSS and JavaScript
- Summary
- Unit 11 - Recap, Reflect, and Next Steps

Content

Hide Table of Contents Lesson 3 - Design Considerations an

navigation buttons, does your site have the same look and feel across all its pages?

**Check Your Understanding**

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

**Instructions:** Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Match the term to its definition.

Having a uniform look and feel throughout your website is known as \_\_\_\_\_ in design.

consistency

Correct!

Back Give Feedback Next

script.js style.css index.html

```
<!DOCTYPE html>
<html>
 <head>
 <title>This text will appear in the browser</title>
 </head>
 <body>
 <h1>Your heading goes here.</h1>
 <p>Your content goes here.</p>
 </body>
</html>
```

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- Lesson 1 - Applying HTML, CSS, and JavaScript to c...
- Lesson 2 - Implementing navigation
- Lesson 3 - Design Considerations and Best Practices
  - What are the principles of web design?
  - Principle: Visual Hierarchy
  - Principle: Consistency in Design
  - Principle: Navigability (current)
  - Principle: Color Theory and Typography
  - Code Challenge: HTML, CSS and JavaScript
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Content

Hide Table of Contents Lesson 3 - Design Considerations an

Evaluate the navigability of your website

Are your navigation menus clear and logical?

**Check Your Understanding**

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

**Instructions:** Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Match the term to its definition.

Easy movement through a website, which is crucial for user experience, is referred to as \_\_\_\_\_.

navigability

Correct!

Back Give Feedback Next

script.js style.css index.html

```
<!DOCTYPE html>
<html>
 <head>
 <title>This text will appear in the browser</title>
 </head>
 <body>
 <h1>Your heading goes here.</h1>
 <p>Your content goes here.</p>
 </body>
</html>
```

The screenshot shows the Visual Studio Code interface with three main panes. The left pane displays a 'FILE EXPLORER' with a file tree for 'VS CODE FOR EDUCATION'. The center pane shows a 'Content' tab with a 'TABLE OF CONTENTS' section and a 'Lesson 3 - Design Considerations' section. The right pane shows code snippets in 'script.js', 'style.css', and 'index.html' files.

**Content Tab:**

- TABLE OF CONTENTS**
  - Intro to Web Development
    - Unit 1 - The Web and Web Development
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    - Unit 4 - Styling with HTML
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    - Unit 7 - Solve a Problem, Serve a Purpose
    - Unit 8 - Advanced CSS and Responsive Web Design
    - Unit 9 - Introduction to JavaScript
  - Lesson 10 - Feedback and Iteration (Community Client)
    - Lesson 1 - Applying HTML, CSS, and JavaScript to c...
    - Lesson 2 - Implementing navigation
  - Lesson 3 - Design Considerations and Best Practices
    - What are the principles of web design?
    - Principle: Visual Hierarchy
    - Principle: Consistency in Design
    - Principle: Navigability
    - Principle: Color Theory and Typography (...
  - Code Challenge: HTML, CSS and JavaScript
  - Summary
- Unit 11 - Recap, Reflect, and Next Steps

**Lesson 3 - Design Considerations and Best Practices:**

Well done! You've successfully completed all of the Check Your Understanding questions and are ready to move on to the next page of the lesson.

**Instructions:** Review each question and any possible answers carefully. After you select the answer(s) that best answer each question or enter a response, select the button to check or submit your answer.

Match the term to its definition.

Allowing users to adjust \_\_\_\_ sizes can enhance the accessibility of a website.

font

To ensure text is readable against its background, checking the \_\_\_\_ contrast is important.

color

**Buttons:** Back, Give Feedback, Next

**Code Snippets:**

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <title>This text will appear in the browser</title>
5 </head>
6 <body>
7 <h1>Your heading goes here.</h1>
8 <p>Your content goes here.</p></body>
9 </html>
10
11
```

## Unit 11:

The screenshot shows a dark-themed interface for 'VS CODE FOR EDUCATION: TABLE OF CONTENTS'. On the left, a sidebar lists course sections: Intro to Web Development, Unit 1 - The Web and Web Development, Unit 2 - Design and Design Thinking, Unit 3 - Client Project, Unit 4 - Styling with HTML, Unit 5 - Introduction to CSS, Unit 6 - Feedback and Iteration (Client), Unit 7 - Solve a Problem, Serve a Purpose, Unit 8 - Advanced CSS and Responsive Web Design, Unit 9 - Introduction to JavaScript, Unit 10 - Feedback and Iteration (Community Client), Unit 11 - Recap, Reflect, and Next Steps, Lesson 1 - Course Summary, Lesson 2 - Reflection (current), and Lesson 3 - Next Steps.

The main content area is titled 'Content' and 'Lesson 2 - Reflection'. It features a 'Hide Table of Contents' button and a text input field for responses. The question asks about initial feelings and growth. A user response is shown: 'the technical demands of the course. I hoped to gain practical skills and create functional websites. Since then, my skills have grown significantly.' A character counter indicates 37 characters remaining.

Below the response, a message says 'Thank you for providing your response.' with a 'Change answer' button. At the bottom are 'Back', 'Give Feedback', and 'Next' buttons.

This screenshot shows the same dark-themed interface. The sidebar and 'Content' area are identical to the previous screenshot. The question asks about how design thinking influenced web design and provided an example. A user response is shown: 'Learning HTML, CSS, and JavaScript was challenging due to their different logic structures—HTML for markup, CSS for styling, and JavaScript for interactivity. Initially, responsive design and cross-browser compatibility were particularly difficult to master.' A character counter indicates 94 characters remaining.

Below the response, a message says 'Thank you for providing your response.' with a 'Change answer' button. At the bottom are 'Back', 'Give Feedback', and 'Next' buttons.

VS CODE FOR EDUCATION: TABLE OF CONTENTS

Content

Intro to Web Development

- > Unit 1 - The Web and Web Development
- > Unit 2 - Design and Design Thinking
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- > Unit 9 - Introduction to JavaScript
- > Unit 10 - Feedback and Iteration (Community Client)
- > Lesson 1 - Course Summary
- > Lesson 2 - Reflection
- Process, Progress, and Experiences (current) [2]
- > Lesson 3 - Next Steps

Hide Table of Contents

Lesson 2 - Reflection

Change answer

**Incorporation of UN Global Goals:**

- Discuss how learning about the United Nations Global Goals influenced your web design projects.
- How did you integrate these goals into your designs?

Learning about the UN Global Goals profoundly shaped my web design projects by inspiring a purpose-driven approach. I focused on Goal 12 (Responsible Consumption) and Goal 13 (Climate Action), aiming to

6 characters remaining

Thank you for providing your response.

Change answer

**Accessibility Considerations:**

- Why is accessibility important in web design?
- How did you ensure your websites were accessible? Provide specific examples from your projects.

Accessibility in web design is crucial to ensure inclusivity, allowing everyone, including people with

Back Give Feedback Next

VS CODE FOR EDUCATION: TABLE OF CONTENTS

Content

Intro to Web Development

- > Unit 1 - The Web and Web Development
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- > Unit 10 - Feedback and Iteration (Community Client)
- > Lesson 1 - Course Summary
- > Lesson 2 - Reflection
- Process, Progress, and Experiences (current) [2]
- > Lesson 3 - Next Steps

Hide Table of Contents

Lesson 2 - Reflection

- Why is accessibility important in web design?
- How did you ensure your websites were accessible? Provide specific examples from your projects.

Accessibility in web design is crucial to ensure inclusivity, allowing everyone, including people with disabilities, to navigate and interact with websites. It promotes equal access and complies with legal

20 characters remaining

Thank you for providing your response.

Change answer

**Implementing Best Practices:**

- What best practices for web design did you learn and apply in your projects?
- How did these practices improve the websites you created?

I learned several web design best practices in Unit 9 and applied them to my projects. I used semantic HTML (e.g., <nav>, <header>) for better structure and accessibility, ensuring screen readers could navigate my

48 characters remaining

Thank you for providing your response.

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  - Process, Progress, and Experiences (current) [2]
  - Lesson 3 - Next Steps

Content

Hide Table of Contents

Lesson 2 - Reflection

Change answer

**Feedback and Improvement:** Reflect on the feedback you received from classmates, teachers, and clients.

- How did you use this feedback to improve your web designs?

Receiving feedback from classmates, teachers, and clients has been crucial in refining my web design skills. Classmates provided fresh perspectives on layout and usability, while teachers focused on technical aspects.

53 characters remaining

Thank you for providing your response.

Change answer

**Personal Design Style:**

- How would you describe your personal design style as it stands now?
- How has it evolved over the course of your learning?

My personal design style is currently minimalist and functional, focusing on clean layouts, high-contrast colors, and intuitive navigation. I prioritize user experience with simple, readable typography and purposeful

Back Give Feedback Next

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- Intro to Web Development
  - Unit 1 - The Web and Web Development
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  - Lesson 1 - Course Summary
  - Lesson 2 - Reflection
  - Process, Progress, and Experiences (current) [2]
  - Lesson 3 - Next Steps

Content

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Lesson 2 - Reflection

Change answer

• How has it evolved over the course of your learning?

My personal design style is currently minimalist and functional, focusing on clean layouts, high-contrast colors, and intuitive navigation. I prioritize user experience with simple, readable typography and purposeful

83 characters remaining

Thank you for providing your response.

Change answer

**Highlights and Deltas:**

- What was a highlight (favorite part) of learning web design? Why is this a highlight for you?
- If you had more time, what is a delta (something you would add to or change about) your experiences through this course? How would this addition or change improve your experience?

My favorite part of learning web design was the moment I started seeing how small changes could dramatically enhance the user experience. For example, tweaking a navigation bar or adjusting the spacing

33 characters remaining

Thank you for providing your response.

Back Give Feedback Next

VS CODE FOR EDUCATION: TABLE OF CONTENTS

Content

Lesson 2 - Reflection

Change answer

**Skills Application:**

- How have you applied, or how do you plan to apply, the skills and knowledge you've gained in web design outside of this class?

I've already started applying the skills I gained in web design to personal projects and freelance work. For instance, I've used principles like responsive design and user-centered design to improve the websites I... 39 characters remaining

Thank you for providing your response.

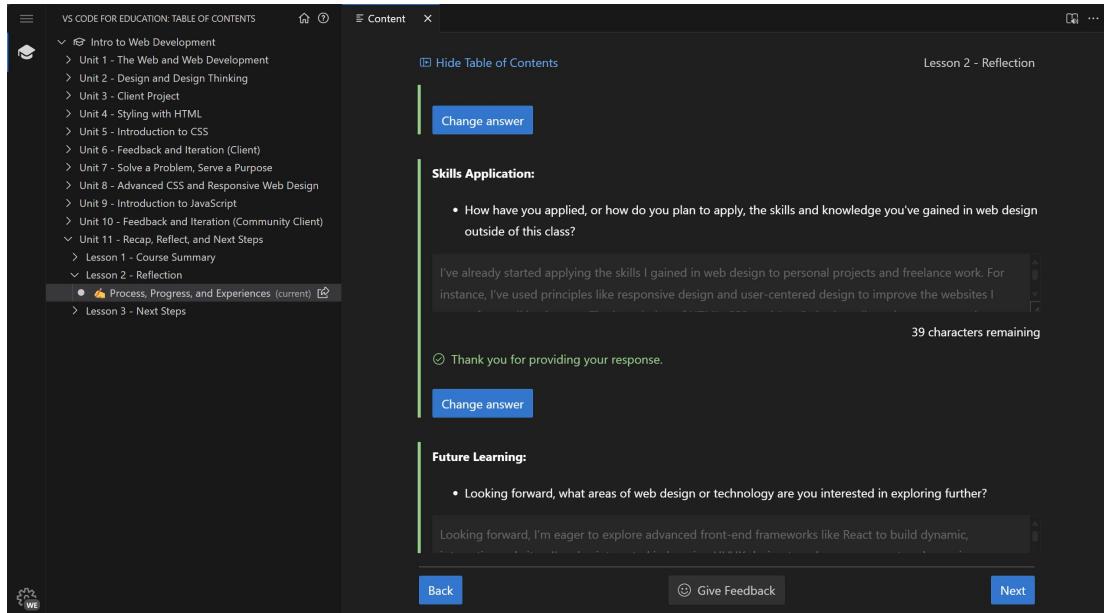
Change answer

**Future Learning:**

- Looking forward, what areas of web design or technology are you interested in exploring further?

Looking forward, I'm eager to explore advanced front-end frameworks like React to build dynamic, interactive websites. I'm also interested in learning UI/UX design to enhance user-centered experiences. 44 characters remaining

Back Give Feedback Next



VS CODE FOR EDUCATION: TABLE OF CONTENTS

Content

Lesson 2 - Reflection

Change answer

**Future Learning:**

- Looking forward, what areas of web design or technology are you interested in exploring further?

Looking forward, I'm eager to explore advanced front-end frameworks like React to build dynamic, interactive websites. I'm also interested in learning UI/UX design to enhance user-centered experiences. 44 characters remaining

Thank you for providing your response.

Change answer

**Advice for Beginners:**

- If you were to give advice to someone just starting out in web design, based on your own experience, what would it be?

web design beginners is to start with the basics: master HTML for structure, CSS for styling, and JavaScript for interactivity. Practice consistently by building small projects, like a personal webpage, to apply what you... 62 characters remaining

Back Give Feedback Next

