



TechTalk: Intro to Web Development

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TechTalk Housekeeping

- The use of disrespectful language is prohibited in the questions, this is a supportive, learning environment for all - please engage accordingly.
(FBV: Mutual Respect.)
- No question is daft or silly - **ask them!**
- There are **Q&A sessions** midway and at the end of the session, should you wish to ask any follow-up questions. Moderators are going to be answering questions as the session progresses as well.
- If you have any questions outside of this lecture, or that are not answered during this lecture, please do submit these for upcoming Open Classes.

You can submit these questions here:

[SE Open Class Questions](#) or [DS Open Class Questions](#)

TechTalk Housekeeping cont.

- For all **non-academic questions**, please submit a query:
www.hyperiondev.com/support
- Report a **safeguarding** incident:
www.hyperiondev.com/safeguardreporting
- We would love your **feedback** on lectures: [Feedback on Lectures](#)

Lecture Objectives

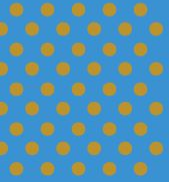
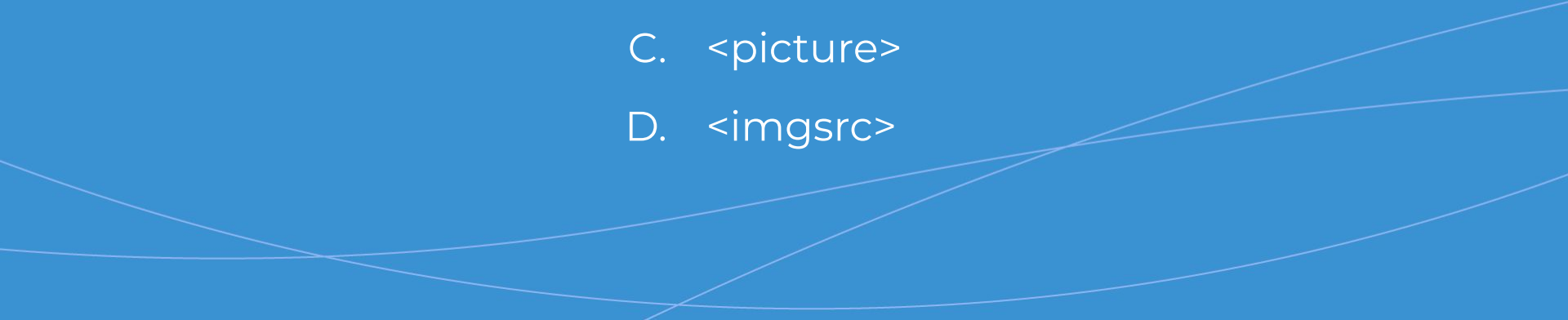
- Define what Web Development is and its importance.
- Explain the role of HTML, CSS, and JavaScript in building web apps.
- Recognise and understand the basic structure of HTML.
- Explain the use of tags, attributes, and elements in HTML.
- Explain the purpose of CSS in WD.
- Recognise CSS syntax, including selectors, properties, and values.

Lecture Objectives

- **Demonstrate how to style elements using CSS.**
- **Introduce JavaScript as a programming language for WD.**
- **Explain the role of JavaScript in adding interactivity to web pages.**
- **Demonstrate basic JavaScript syntax and concepts.**
- **Build a simple web application using HTML, CSS, and JavaScript.**



Which tag is used to define an image in HTML?

- 
- A. ``
 - B. `<image>`
 - C. `<picture>`
 - D. `<imgsrc>`
- 

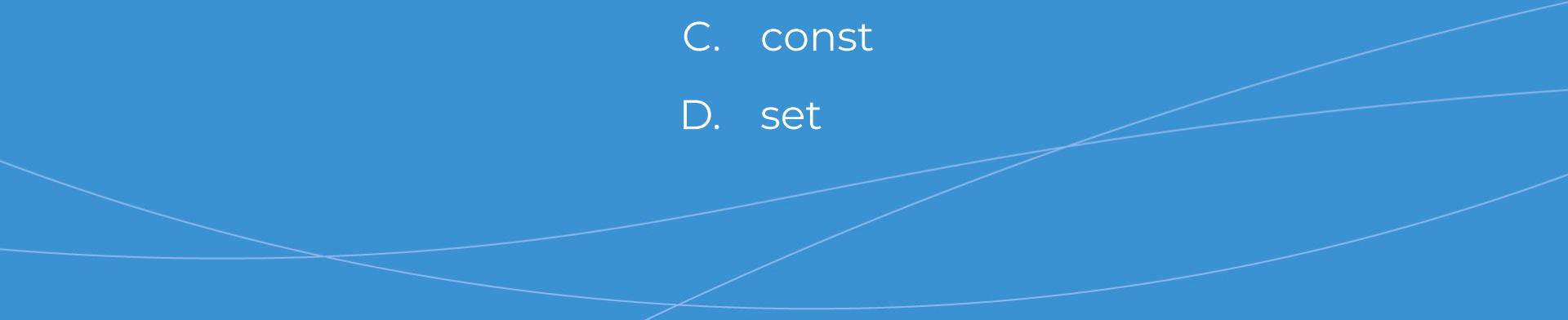
How can you add comments in CSS?

- A. `/* comment */`
- B. `// comment`
- C. `<!-- comment -->`
- D. `'comment'`



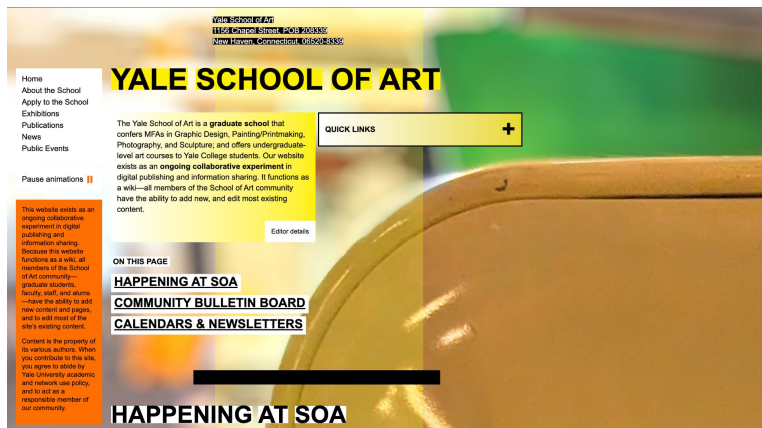
Which keyword is used to declare a variable in JavaScript?



- A. var
 - B. let
 - C. const
 - D. set
- 

Problem Statement

Have you ever visited a website that looked outdated or generic, was difficult to navigate, or lacked interactivity?



Healthy habits start small and can be simple. By drinking 2 cups of Lipton Green

Problem Statement

Imagine you are a small business owner looking to expand your customer base. You know that having a professional website could help attract new customers, but you're not sure where to start. In this lecture, we will explore the basics of web development, including HTML, CSS, and JavaScript, to help you create a website that is both visually appealing and user-friendly.

- There are many online tools which can be used to create websites but these are **limited** and websites often look **generic**.
- Having a strong online presence is crucial for businesses, organisations, and individuals. This can be challenging without at least a basic understanding of web development.

Example: String Handling

- When outputting Strings to display to users:
 - **Firstly:** We define the output [HTML]
 - `print("Hello everyone! Welcome to my class :)")`
 - **Secondly:** We format or style the output [CSS]
 - `print("Hello everyone! \n Welcome to my class :)")`
 - **Finally:** We can add functionality to the output [JavaScript]
 - `print("Hello everyone! \n Welcome to my class :) \n The date is: {}".format(date.today))`

HTML

HTML (HyperText Markup Language) is used to structure and format the content of websites on the World Wide Web.

- In simple words, HTML is the primary building block to create and structure website content.
- Web Developers use it to create a skeleton of modern websites and web apps.

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Hello CoGrammar</title>
  </head>
  <body></body>
</html>
```

DOM

A programming interface for web documents. It represents the page so programs can change the document structure, style, and content dynamically.

- The DOM is a fundamental concept in web development, enabling interaction with web pages.
- When a web page is loaded, the browser creates a Document Object Model of the page.
- The DOM tree represents the structure of an HTML document. Each element in the document is a node in the tree, forming a parent-child relationship.

HTML: Elements

- HTML elements consist of several parts, including the **opening and closing tags**, the **content**, and the **attributes**.
- The **opening tag** consists of the element name, wrapped in angle brackets (< or />). It indicates the start of the element where the element's effect begins.
- The **closing tag** is the same as the opening tag, but with a forward slash (/) before the element name. It indicates the end of the element where the element's effect stops.

CSS

Cascading Style Sheets (CSS) is a language used to change the presentation and styling of a document written in a markup language.

- Helps us create visually appealing and user-friendly websites.
- HTML structures the content, CSS controls how the content looks.
- CSS uses a set of rules written in a certain syntax to style HTML.
- We use CSS to create style sheets, which define the appearance and layouts of the elements on a webpage.
- The various properties which we can control with CSS can be found [here](#).

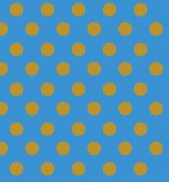
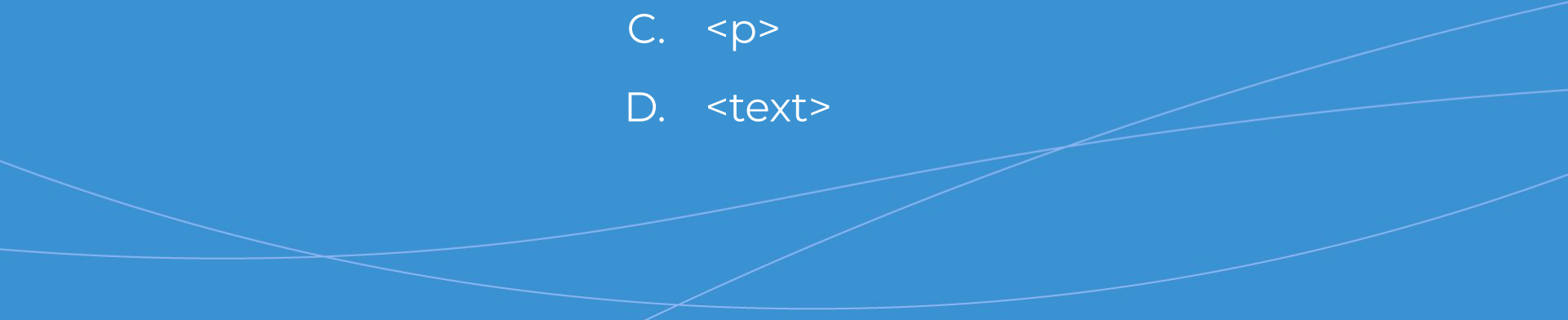
JavaScript


A versatile scripting language utilised in front-end web development and server-side programming.

- We use JavaScript with HTML and CSS to transform our static web pages to dynamic web pages.
- Last week, we learnt how to link scripts to our HTML. These scripts are written in JavaScript.
- Browsers have built-in consoles used to debug JavaScript code.

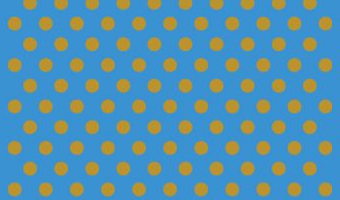
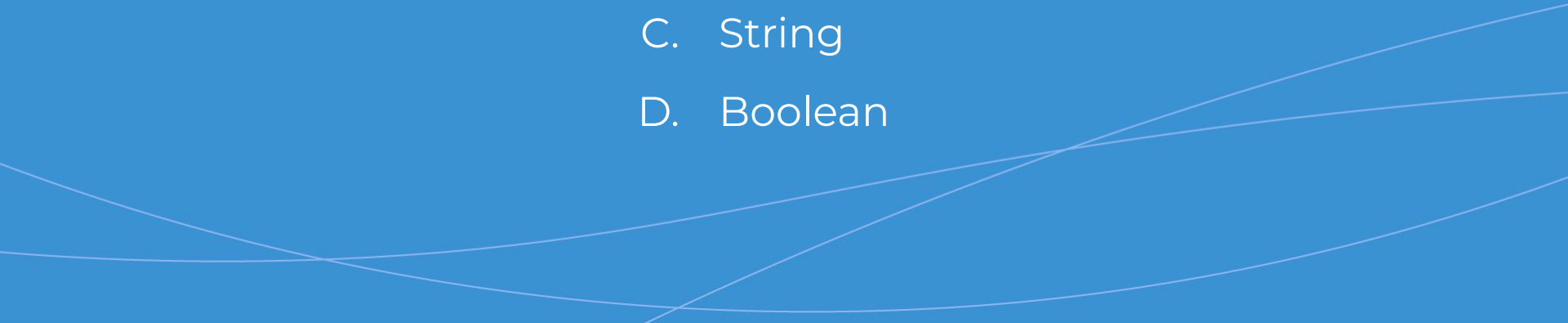


Which tag is used to define a paragraph in HTML?

- 
- A. <para>
 - B. <paragraph>
 - C. <p>
 - D. <text>
- 

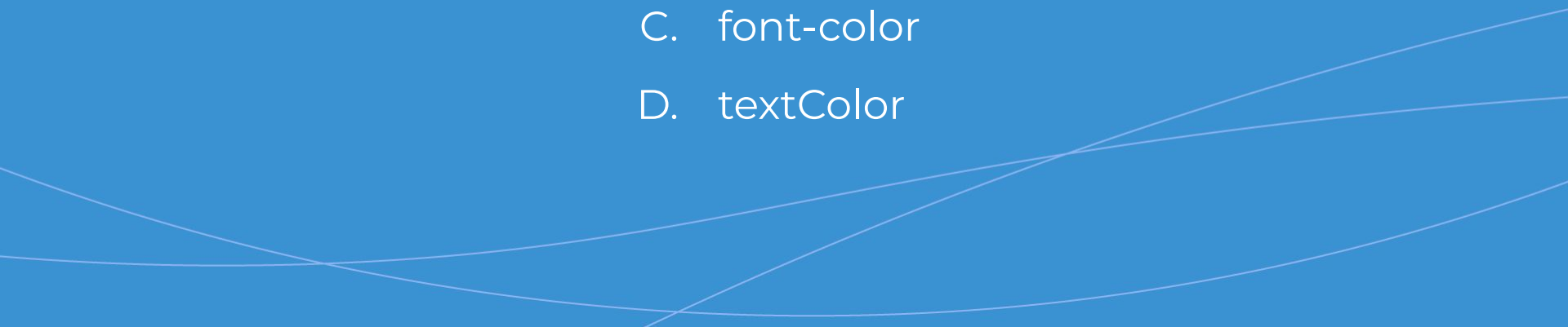


Which of the following is not a data type in JavaScript?

- A. Number
 - B. Character
 - C. String
 - D. Boolean
- 
- 



Which property is used to change the text colour of an element in CSS?

- A. text-color
 - B. color
 - C. font-color
 - D. textColor
- 



Questions and Answers

Questions around Title

