The Evolution of HTML & HTML5 Validation

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for ID Tools Course

Purpose Statement

This e-book explores the journey of HTML from its early days to the powerful HTML5 standard, highlighting how W3C markup validation helps create reliable, accessible, and future-proof websites. Understanding HTML evolution and validation is essential for anyone learning web development, as it ensures that your web pages function properly across various devices and browsers.

Learning outcomes:

- Understand the historical development of HTML.
- Learn about new features in HTML5.
- Appreciate the importance of using W3C markup validation for checking code quality.

THE HISTORY OF HTML

MAJOR VERSIONS OF HTML

1 **1993**
Basic structure and formattng capabilities

HTML 1.0

2 **1995**
Added support for forms and tables

HTML 2.0

3 **1997**
Introduced support for scripts and applets

HTML 3.2

4 **1999**
Improved support for CSS and accessibility

HTML 4.01

5 **2014**
New semantic elements, audio and video support
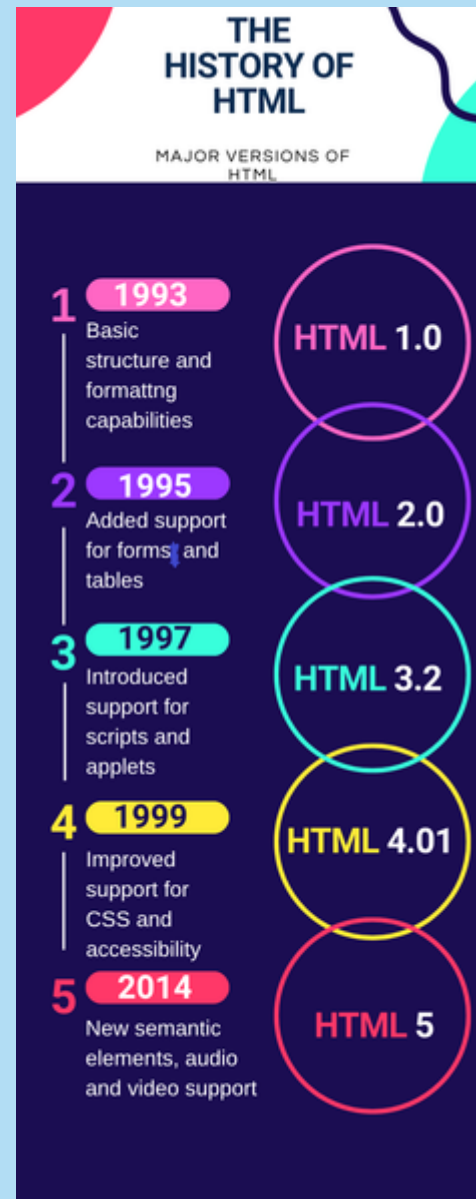
HTML 5

The Evolution of HTML

HTML began in 1993 as a simple markup language for formatting text on the web. Over time, it developed to include images, tables, and interactive elements. HTML5, launched in 2014, introduced significant improvements, including native audio and video support, semantic tags and enhanced mobile compatibility.

Features and Power of HTML5

Key features of HTML5:

- Audio and video tags without plugins.
- New input types in forms.
- Canvas for graphics and games.
- Semantic tags for better structure and SEO.

HTML5 simplifies multimedia integration by introducing <video> and <audio> tags. It also includes semantic elements, such as <section>, <nav>, and <article>, making the code cleaner and easier to understand.

This YouTube video offers further insight into HTML5's new features.https://www.youtube.com/watch?v=WSMMCPElvWw

The Role of W3C Markup Validation

HOW TO VALIDATE HTML

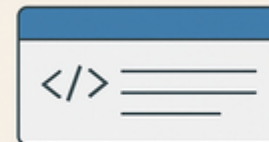Three methods for checking the syntax of HTML documents

http://...
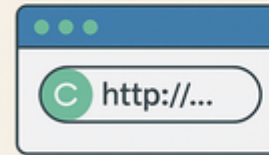
By URI
Enter the web address of the document

By File Upload
Upload an HTML file from your computer

By Direct Input
Paste HTML markup into a text field

W3C Markup Validation Service

The Role of W3C Markup Validation

The World Wide Web Consortium (W3C) sets standards for web technologies to ensure the web is accessible and consistent.
The W3C Markup Validation Service checks your HTML code for errors and alerts you to potential bad practices. Validating your HTML helps:

- Ensure your website functions properly on all major browsers.
- Make your content accessible to everyone.
- Improve SEO and user experience.

The validation tool is found at:
https://validator.w3.org/

> *Benefits include: Fewer errors, better cross-browser support and improved accessibility.*

Assignment (Activity)

Please visit this mobile app:

Navigate to the activity page.
You are required to download two files—one correct file and one incorrect file—both of which are available within the app.
Open the HTML validator and upload both files to validate them.
Observe the differences and the error messages.
Then, share your experience using the provided form.

What did you learn when validating the correct file?
What errors did you find in the incorrect file?
Why do you think validation is important?
How confident do you feel about HTML validation now?
Any other comments?

The Importance of Mobile Apps in Teaching and Learning

Mobile applications have transformed teaching and learning by making educational content more accessible, interactive, and engaging. They allow learners to study anytime and anywhere, promote self-paced learning, and support personalised experiences through multimedia and interactive activities. Integrating mobile apps in education fosters higher motivation and participation, helps bridge digital skills gaps, and prepares learners for real-world technology use.

Closing remarks.

You have now explored the evolution of HTML, discovered the powerful features of HTML5, and understood the importance of code validation. We encourage you to continue practising by creating and validating your web pages. ***Happy coding!***

References

Al-Emran, M., Elsherif, H. M., & Shaalan, K. (2016). *Investigating attitudes towards the use of mobile learning in higher education*. Computers in Human Behavior, 56, 93–102. https://doi.org/10.1016/j.chb.2015.11.033 Duckett, J. (2011). *HTML and CSS: Design and build websites*. John Wiley & Sons.

Mozilla Developer Network. (2023). *HTML5 — Introduction to HTML5*. MDN Web Docs. https://developer.mozilla.org/en-US/docs/Web/Guide/HTML/HTML5

W3Schools. (2024). *HTML introduction*. https://www.w3schools.com/html/html_intro.asp

World Wide Web Consortium (W3C). (2024). *Markup validation service*. https://validator.w3.org/