

HTML Basics: Structure, Elements, Forms, and Semantic HTML5

Web & Internet Technologies – Week 2

Learning Objectives



Understand what HTML is and its role in web development



Recognize the structure of an HTML document



Use common HTML elements (headings, lists, links, images)



Build and structure forms for user input



Apply semantic HTML5 tags for accessibility and SEO

What is HTML?



Hyper Text Markup Language



Provides structure to web pages



Works with CSS (style) and JavaScript (interactivity)



Not a programming language, but a markup language



HTML Document Structure



```
<!DOCTYPE html>
```

```
<html>
```

```
<head> ... </head>
```

```
<body> ... </body>
```

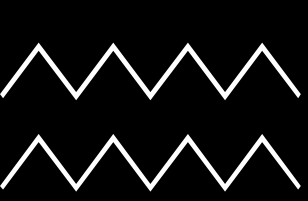
```
</html>
```

Key
sections:

`<!DOCTYPE html>` –
HTML5 declaration

`<head>` – metadata,
title, styles/scripts

`<body>` – visible
content



Common HTML Elements



Headings: <h1> ... <h6>

Paragraphs: <p>

Links:

Images:

Lists: , ,

Attributes: id, class, alt, href, src

Example: Profile Page



A simple page with:



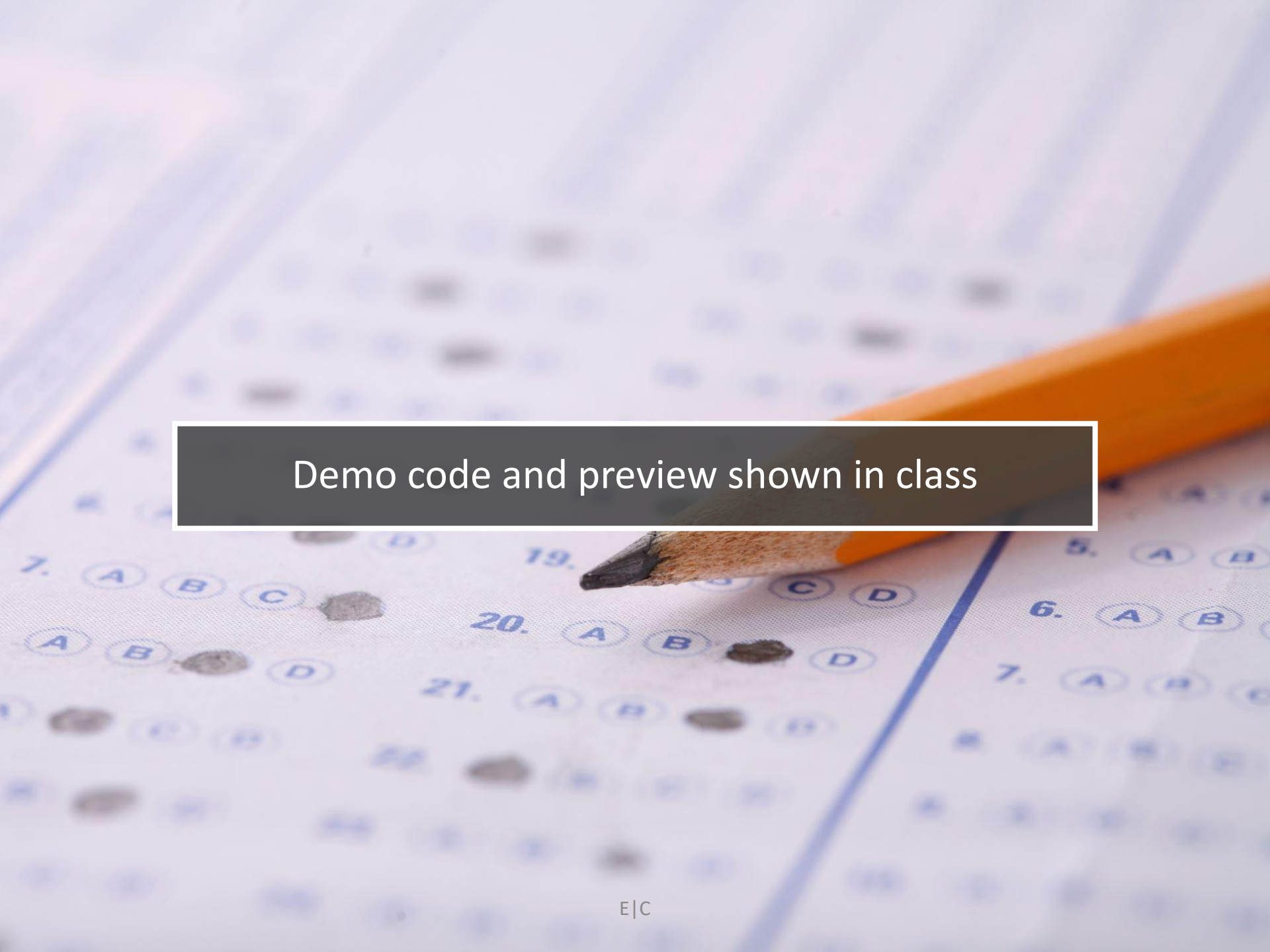
Heading and paragraph



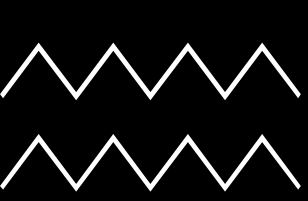
Image with alt text



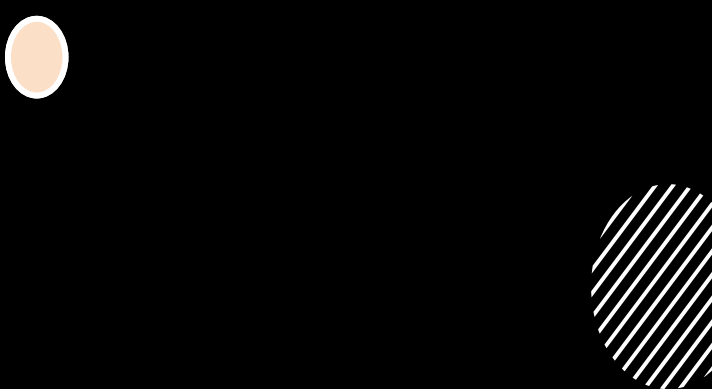
Links to external sites



Demo code and preview shown in class



Forms in HTML

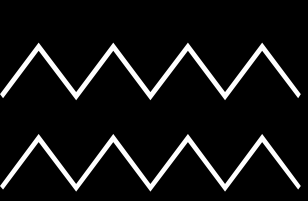


`<form>` element

Input types: text, email,
password, checkbox, radio, file

`<label>` for accessibility

Buttons: submit, reset



Form Example



```
<form>
```

```
<label for='name'>Name:</label>
```

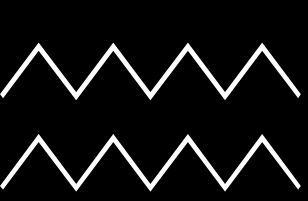
```
<input type='text' id='name'>
```

```
<label for='email'>Email:</label>
```

```
<input type='email' id='email'>
```

```
<button  
type='submit'>Submit</button>
```

```
</form>
```



Semantic HTML5



Why semantics matter:



– Better SEO (search engines understand content)



– Improved accessibility (screen readers)



– Easier to maintain

Examples:

<header>, <nav>, <main>, <section>, <article>, <footer>



Semantic vs Non- Semantic



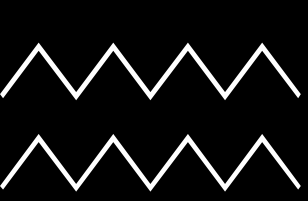
Non-Semantic:

`<div>`, `<span>`

Semantic:

`<header>`, `<footer>`, `<section>`,
`<article>`

Semantic = meaningful structure,
better SEO & accessibility



Demo: UCA Event Page



Includes:

Header with event title

Main content:
description + schedule

Registration form:
name, email, checkbox

Footer with contact
info

A close-up photograph of a spider web, showing the intricate spiral and radial patterns. The web is set against a blurred green background, likely foliage. The lighting is soft, highlighting the fine threads of the web.

Demo: WebStorm

Best Practices in HTML

Close	Always close tags
Use	indentation for readability
Prefer	semantic tags over div/span
Add	alt text for images
Validate	code using W3C Validator

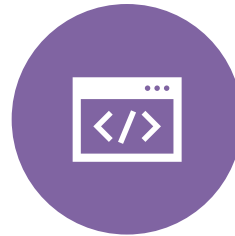
Tools & Resources



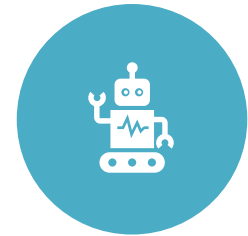
EDITOR: WEBSTORM
(JETBRAINS)



DOCS: MDN WEB
DOCS (HTML,
FORMS, SEMANTICS)



VALIDATOR: W3C
HTML VALIDATOR



AI ASSISTANTS:
GITHUB COPILOT,
CHATGPT

Assignment

- Task: Build a 'Student Profile Page' in HTML
- Requirements:
- Include name, short bio, and image
- Add links to social media (dummy links ok)
- Create a contact form (name + email + submit)
- Use at least 3 semantic tags

Summary



HTML = structure of web pages



Document structure: head + body



Common elements: headings, lists, links, images



Forms allow user input



Semantic HTML improves SEO and accessibility

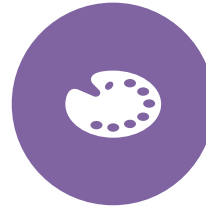
Next Week: CSS – Styling the Web



INTRODUCTION TO
CSS



SELECTORS AND
PROPERTIES



COLORS, FONTS,
AND TEXT
FORMATTING



BOX MODEL BASICS



PREPARE BY
REVIEWING MDN
CSS BASICS