
Lab 3: HTML Basics — Structure & Semantic Markup

Step-by-Step Breakdown

🔧 1. Setup Your Environment

- **Install Tools:**
 - [VS Code](#)
 - [Live Server Extension](#)
 - [W3C HTML Validator](#)
 - **Create Project Folder:**
 - Name it something like `lab3-html-basics`
 - Inside, create `index.html`
-

2. Build Semantic Structure in `index.html`

Use semantic HTML5 tags to organize your page:

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

<header>
  <h1>Welcome to My Webpage</h1>
  <p>Short intro or tagline</p>
</header>

<nav>
  <ul>
    <li><a href="#about">About Me</a></li>
    <li><a href="#projects">Projects</a></li>
    <li><a href="https://github.com/">GitHub</a></li>
  </ul>
</nav>

<main>
  <article id="about">
    <h2>About Me</h2>
    <p>Brief bio or description</p>
    
  </article>

  <aside>
    <h3>Quick Facts</h3>
    <ul>
```

```
<li>Location: Punjab, Pakistan</li>
<li>Interests: Web Development, AI</li>
<li>Languages: English, Urdu</li>
</ul>
</aside>

<article id="projects">
  <h2>Projects</h2>
  <ul>
    <li><a href="project1.html">Project 1</a></li>
    <li><a href="project2.html">Project 2</a></li>
  </ul>
</article>
</main>

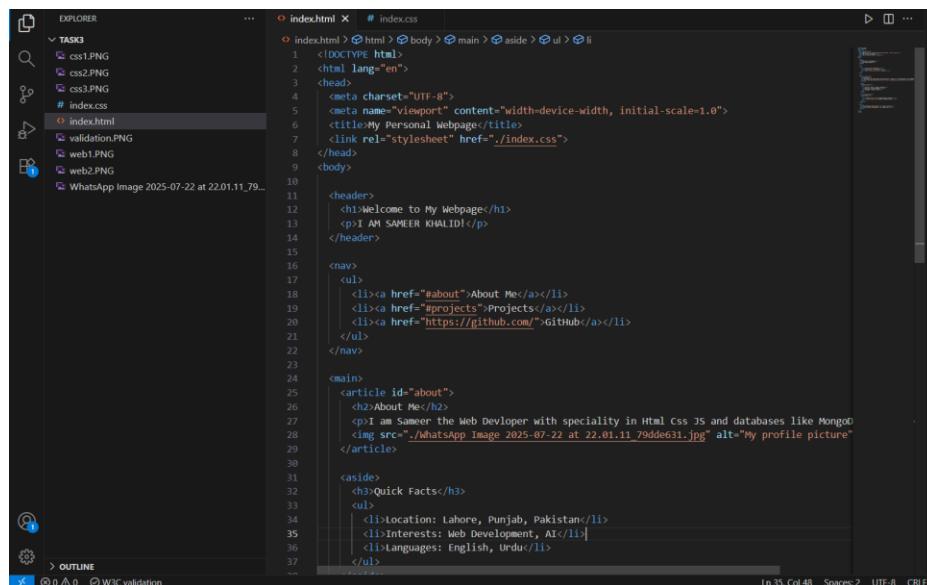
<footer>
  <p>© 2025 Muhammad. All rights reserved.</p>
  <p><a href="mailto:muhammad@example.com">Contact Me</a></p>
</footer>

</body>
</html>
```

3. Add Content Elements

- **Images:** Use .jpg, .png, or .svg with descriptive alt attributes.
 - **Lists:** Use or for facts, links, or features.
 - **Links:**
 - Internal: href="#section-id"
 - External: href="https://..." with target="_blank" if needed.

- Use meaningful alt text for all images.
 - Ensure link text is descriptive (avoid "click here").
 - Use proper heading hierarchy (<h1> to <h3>).
 - Label navigation clearly.



EXPLORER ...

TASKS

- index.css
- index.html
- validation.PNG
- web1.PNG
- web2.PNG
- WhatsApp Image 2025-07-22 at 22.01.11.79..

index.css > ...

```
45 nav a {  
46   color: #fff;  
47   text-decoration: none;  
48   font-weight: 500;  
49   transition: color 0.3s;  
50 }  
51  
52 nav a:hover {  
53   color: #00bcd4;  
54 }  
55  
56 main {  
57   display: flex;  
58   flex-wrap: wrap;  
59   justify-content: center;  
60   gap: 2rem;  
61   max-width: 1100px;  
62   margin: 4rem auto;  
63   padding: 0 1rem;  
64 }  
65  
66 article {  
67   background: #fff;  
68   padding: 2rem;  
69   border-radius: 10px;  
70   box-shadow: 0 2px 10px rgba(0, 0, 0, 0.05);  
71   flex: 1 1 400px;  
72   min-width: 300px;  
73   max-width: 500px;  
74 }  
75  
76 article h2 {  
77   font-size: 1.8rem;  
78   margin-bottom: 1rem;  
79 }  
80 }  
81
```

> OUTLINE

W3C validation

Type here to search

Ln 66, Col 1 Spaces: 2 UTF-8 CR/LF

29°C

Welcome to My Webpage

I AM SAMEER KHALID!

About Me Projects GitHub

About Me

I am Sameer the Web Developer with speciality in Html Css JS and databases like MongoDB ,SQL



Quick Facts

- Location: Lahore, Punjab, Pakistan
- Interests: Web Development, AI
- Languages: English, Urdu

Projects

- Authentication System
- Amazon Frontend Clone

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[Contact Me](#)

5. Validate HTML

- Go to [W3C Validator](#)
- Upload or paste your HTML code.
- Fix any warnings or errors (e.g., missing alt, unclosed tags).

The screenshot shows a web browser window with the URL validator.w3.org/nu/#file. The title bar says "Nu Html Checker". The main content area has a blue header bar with the text "Nu Html Checker". Below it, a message says "This tool is an ongoing experiment in better HTML checking, and its behavior remains subject to change". A sub-header says "Showing results for uploaded file index.html (checked with vnu 25.10.15)". Underneath, there's a "Checker Input" section with "Show" options (source, outline, image report) and an "Options..." button. It includes a "Check by" dropdown set to "file upload" with a "Choose File" button and a message "No file chosen". Below that is a note about XML parsing for .xhtml and .xht files. A "Check" button is at the bottom of this section. At the very bottom of the page, a green bar says "Document checking completed. No errors or warnings to show." There are also small links for "About this checker" and "Report an issue".

6. Final Deliverables

Requirement	Description
<input checked="" type="checkbox"/> Semantic Usage (4)	Use of header, nav, main, article, aside, footer
<input checked="" type="checkbox"/> Accessibility (3)	Alt text for images, clear labels, heading structure
<input checked="" type="checkbox"/> Validation (3)	Pass W3C validation with no errors or warnings
<input checked="" type="checkbox"/> Hosting	Push to GitHub repo or local server using Live Server
<input checked="" type="checkbox"/> Report	Save validation screenshot or summary in repo (e.g., validation.txt)

CONCLUSION:

RUBRICS:

Performance			Lab Report		
Description	Total Marks	Marks Obtained	Description	Total Marks	Marks Obtained
Ability to Conduct practical	5		Structure	5	
Data Analysis & Interpretation	5		Efficiency	5	
Total Marks obtained			Total Marks Obtained		

instructor Signature_____