

Lahore Garrison

University

DHA Phase 6 Lahore

Lab Task 3



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Student Roll No	Fa23/BSCS/279
Section	G
Subject	Web Technologies Lab
Instructor Name	Mr. M Yousaf

Lab 3: HTML Basics — Structure & Semantic Markup

Step-by-Step Breakdown

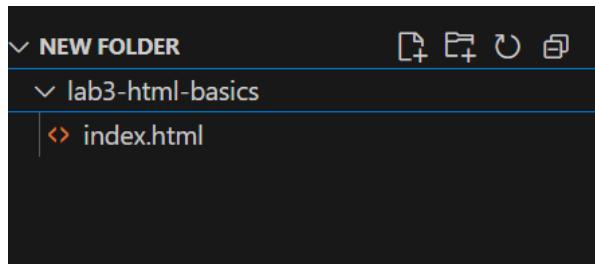
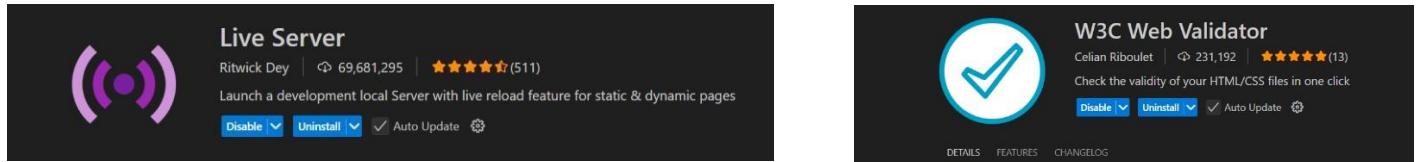
1. Setup Your Environment

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:

```
index.html
1 <!DOCTYPE html>
2 <html lang="en">
3   <head>
4     <meta charset="UTF-8">
5     <title>My Webpage</title>
6   </head>
7   <body>
8     <!-- Header Section -->
9     <header>
10       <h1>Welcome to My Webpage</h1>
11       <p>Short intro or tagline</p>
12     </header>
13
14     <!-- Navigation Bar -->
15     <nav aria-label="Main Navigation">
16       <ul>
17         <li><a href="#about">About Me</a></li>
18         <li><a href="#">Projects</a></li>
19         <li><a href="https://github.com/" target="_blank">GitHub</a></li>
20       </ul>
21     </nav>
22
23
24     <main>
25       <article id="about">
26         <h2>About Me</h2>
27         <p>Brief bio or description</p>
28         
29       </article>
30
31       <aside>
32         <h3>Quick Facts:</h3>
33         <ul>
34           <li>Location: Punjab, Pakistan</li>
35           <li>Interests: Web Development, AI</li>
36           <li>Languages: English, Urdu</li>
37         </ul>
38       </aside>
39
40       <article id="projects">
41         <h2>Projects</h2>
42         <ul>
43           <li><a href="project1.html">Project 1</a></li>
44           <li><a href="project2.html">Project 2</a></li>
45         </ul>
46       </article>
47     </main>
48
49     <footer>
50       <p>© 2025 Muhammad. All rights reserved.</p>
51       <p><a href="mailto:mohammad@example.com">Email Muhammad</a></p>
52     </footer>
53
54   </body>
55 </html>
```

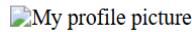
Welcome to My Webpage

Short intro or tagline

- [About Me](#)
- [Projects](#)
- [GitHub](#)

About Me

Brief bio or description



Quick Facts

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

Projects

- [Project 1](#)
- [Project 2](#)

© 2025 Muhammad. All rights reserved.

[Contact Me](#)

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.

```
ab3-html-basics > index.html > body > main > article#projects
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>My Personal Webpage</title>
7  </head>
8  <body>
9
10     <!-- Header Section -->
11     <header>
12         <h1>Welcome to My Webpage</h1>
13         <p>Short intro or tagline</p>
14     </header>
15
16     <!-- Navigation Bar -->
17     <nav>
18         <ul>
19             <li><a href="#about">About Me</a></li>
20             <li><a href="#projects">Projects</a></li>
21             <li><a href="https://github.com/" target="_blank">GitHub</a></li>
22         </ul>
23     </nav>
24     <main>
25         <article id="about">
26             <h2>About Me</h2>
27             <p>Brief bio or description</p>
28             
29         </article>
30
31         <aside>
32             <h3>Quick Facts</h3>
33             <ul>
34                 <li>Location: Punjab, Pakistan</li>
35                 <li>Interests: Web Development, AI</li>
36                 <li>Languages: English, Urdu</li>
37             </ul>
38         </aside>
39         <article id="projects">
40             <h2>Projects</h2>
41             <ul>
42                 <li><a href="project1.html">Project 1</a></li>
43                 <li><a href="project2.html">Project 2</a></li>
44             </ul>
45         </article>
46     </main>
47     <footer>
48         <p>© 2025 Muhammad. All rights reserved.</p>
49         <p><a href="mailto:mohammad@example.com">Contact Me</a></p>
50     </footer>
51
52 </body>
53 </html>
```

Welcome to My Webpage

Short intro or tagline

- [About Me](#)
- [Projects](#)
- [GitHub](#)

About Me

Brief bio or description



Quick Facts

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Projects

4. Accessibility Basics

- 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.

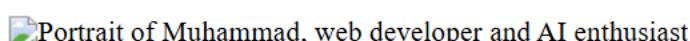
```
<p>Brief bio or description</p>

</article>
```

- [About Me](#)

About Me

Brief bio or description



Quick Facts

- Location: Punjab, Pakistan

Short intro or tagline

- [About Me](#)
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- [GitHub](#)

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 the 'Nu Html Checker' interface. At the top, it says 'Showing results for uploaded file index.html (checked with vnu 25.10.15)'. Below that is a 'Checker Input' section with options to 'Show source', 'outline', 'image report', and 'Options...'. It includes a 'Check by' dropdown set to 'file upload' with a 'Choose file' button, which shows 'No file chosen'. A note states 'Uploaded files with .xhtml or .xht extensions are parsed using the XML parser.' There is a 'Check' button. At the bottom, a green bar indicates 'Document checking completed. No errors or warnings to show.' and notes 'Used the HTML parser.' and 'Total execution time 2 milliseconds.'

6. Final Deliverables

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

The screenshot shows a GitHub repository named 'Web-Dev-Lab-1'. In the 'Tasks / task_3 /' folder, there are four files listed: 'index.html', 'profile.png', and 'validation.png'. The 'index.html' file was added 5 minutes ago. The 'profile.png' and 'validation.png' files were also added 5 minutes ago. The 'index.html' file has a commit message 'Add index file'. The 'History' button is visible at the top right of the list.

CONCLUSION:

This lab helped me learn how to create a well-structured HTML page using semantic tags and improve accessibility through proper headings, alt text, and links. I also understood the importance of validating HTML to ensure clean and error-free code.

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 _____