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
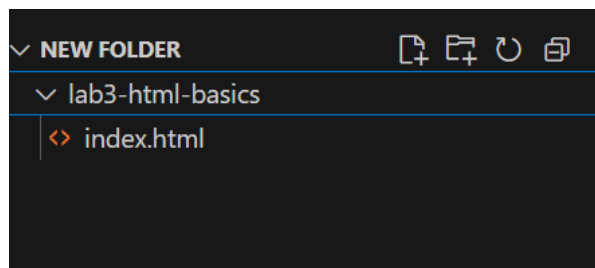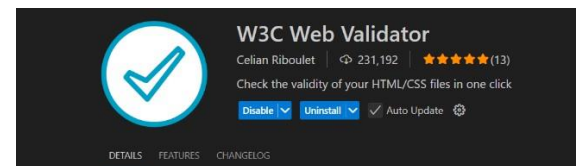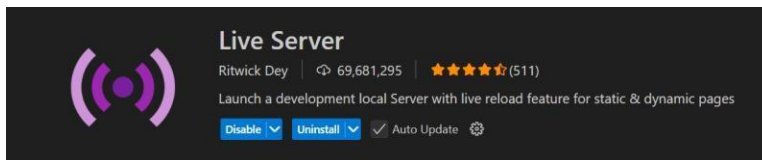
Step-by-Step Breakdown

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:


```html
<html lang="en">
<head>

</head>
<body>
    <!-- ● Header Section -->
    <header>
        <h1>Welcome to My Webpage</h1>
        <p>Short intro or tagline</p>
    </header>

    <!-- ● Navigation Bar -->
    <nav aria-label="Main Navigation">
        <ul>
            <li><a href="#about">About Me</a></li>
            <li><a href="#projects">Projects</a></li>
            <li><a href="https://github.com/" target="_blank">GitHub</a></li>
        </ul>
    </nav>

    <main>
        <article id="about">
            <h2>About Me</h2>
            <p>Brief bio or description</p>
            <img src="../../assets/task3_profile.png" alt="Portrait of Muhammad, web developer and AI enthusiast" width="250">
        </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">Email Muhammad</a></p>
    </footer>
</body>
</html>
```

Welcome to My Webpage

Short intro or tagline

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

About Me

Brief bio or description

My profile picture

Quick Facts

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

Projects

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

© 2025 Muhammad. All rights reserved.

[Contact Me](#)

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3. Add Content Elements

Images: Use .jpg, .png, or .svg with descriptive alt attributes,Lists: Use <ul> or <ol> for facts, links, or features.

Links:

- **Internal: href="#section-id"**
- **External: href="https://..." with target="_blank" if needed.**


```html
<!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 Section -->
    <header>
        <h1>Welcome to My Webpage</h1>
        <p>Short intro or tagline</p>
    </header>

    <!-- ◆ Navigation Bar -->
    <nav>
        <ul>
            <li><a href="#about">About Me</a></li>
            <li><a href="#projects">Projects</a></li>
            <li><a href="https://github.com" target="_blank">GitHub</a></li>
        </ul>
    </nav>
    <main>
        <article id="about">
            <h2>About Me</h2>
            <p>Brief bio or description</p>
            <img src="profile.png" alt="My profile picture" width="250">
        </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>
```
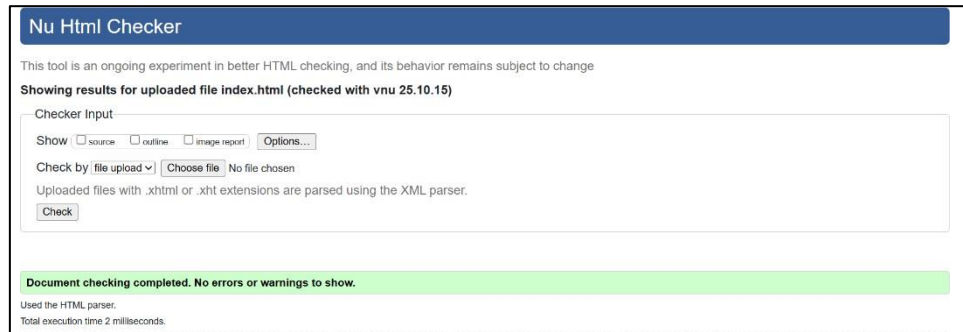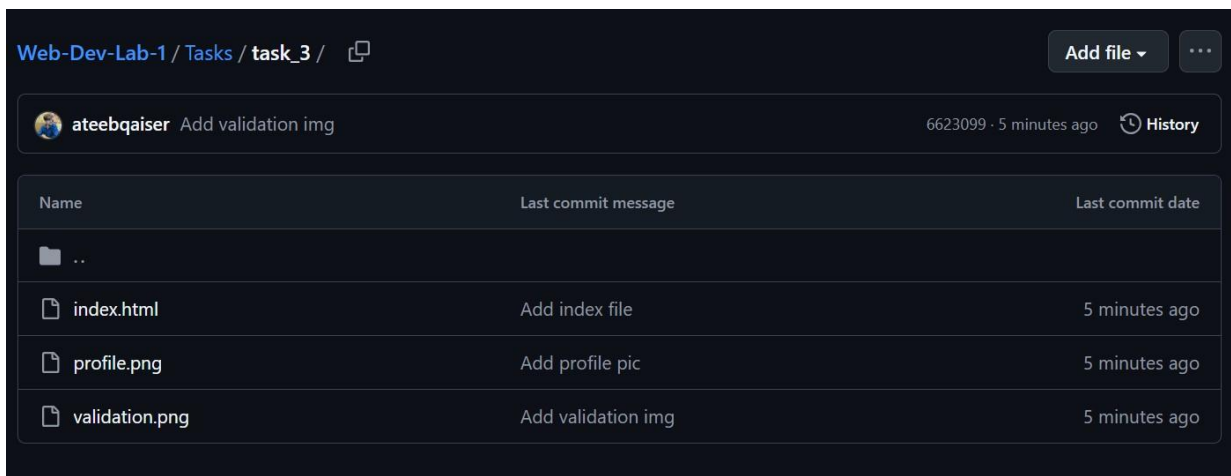
4. Accessibility Basics

- **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>
<img src="profile.png" alt="Portrait of Muhammad, web developer and AI enthusiast" width="250">
</article>
```

5. Validate HTML

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

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)

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 ⎯⎯⎯⎯⎯⎯⎯⎯⎯