

Lahore Garrison University

DHA Phase 6 Lahore

Lab Task 6



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Section	G
Subject	Web Technologies Lab
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Lab 6: CSS Fundamentals & Box Model:

Lab Objectives

- Apply CSS rules to style a webpage.
- Understand and use the **CSS Box Model**.
- Use **selectors**, **positioning**, and **layout techniques**.
- Inspect and debug layout using **browser DevTools**.

Tools Required

- **VS Code** (with Live Server extension)
- **Browser DevTools** (Chrome, Firefox, etc.)
- A basic **HTML portfolio page** to style

Step 1: Style the Personal Portfolio

HTML File (index.html) – Basic Structure

CSS File (style.css) – Styling and Box Model

```
/* General Reset /
{
  box-sizing: border-box;
  margin: 0;
  padding: 0;
}

/* Body Styling /
body {
  font-family: Arial, sans-serif;
  background-color: #f4f4f4;
  color: #333;
  padding: 20px;
}

/Header /
header {
  background-color: #007acc;
  color: white;
  padding: 20px;
  margin-bottom: 20px;
```

```
    border-radius: 8px;
}
```

```
/ Class and ID Selectors /
```

```
#main-title {
    font-size: 2em;
}
```

```
.tagline {
    font-style: italic;
}
```

```
/ Section Styling /
```

```
.about, .projects {
    margin-bottom: 20px;
    padding: 15px;
    background-color: white;
    border: 1px solid #ccc;
    border-radius: 5px;
}
```

```
/ Project Cards with Float /
```

```
.project-card {
    float: left;
    width: 45%;
    margin: 2.5%;
    padding: 10px;
    background-color: #e0e0e0;
    border: 1px solid #999;
    border-radius: 5px;
}
```

```
/ Clearfix /
```

```
.projects::after {
    content: "";
    display: table;
    clear: both;
}
```

```
/ Footer */
```

```
footer {
    text-align: center;
    padding: 10px;
}
```

```
background-color: #ddd;
border-radius: 5px;
}
```

```
index.html X # style.css
index.html > ...
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <title>My Portfolio</title>
6   <link rel="stylesheet" href="style.css">
7 </head>
8 <body>
9
10   <header>
11     <h1 id="main-title">Ateeb Qaiser</h1>
12     <p class="tagline">Web Developer | Problem Solver | Learner</p>
13   </header>
14
15   <section class="about">
16     <h2>About Me</h2>
17     <p>I am a Computer Science student passionate about web development and coding.</p>
18   </section>
19
20   <section class="projects">
21     <h2>Projects</h2>
22
23     <div class="project-card">
24       <h3>Portfolio Website</h3>
25       <p>A personal website built using HTML and CSS.</p>
26     </div>
27
28     <div class="project-card">
29       <h3>Calculator App</h3>
30       <p>A simple JavaScript-based calculator.</p>
31     </div>
32   </section>
33
34   <footer>
35     <p>© 2025 Ateeb Qaiser | All Rights Reserved</p>
36   </footer>
37
38 </body>
39 </html>
40
```

```
index.html # style.css X
# style.css > ...
1  /* General Reset */
2  * {
3    box-sizing: border-box;
4    margin: 0;
5    padding: 0;
6  }
7
8  /* Body Styling */
9  body {
10   font-family: Arial, sans-serif;
11   background-color: #f4f4f4;
12   color: #333;
13   padding: 20px;
14 }
15
16 /* Header */
17 header {
18   background-color: #007acc;
19   color: white;
20   padding: 20px;
21   margin-bottom: 20px;
22   border-radius: 8px;
23 }
24
25 /* Class and ID Selectors */
26 #main-title {
27   font-size: 2em;
28 }
29
30 .tagline {
31   font-style: italic;
32 }
33
34 /* Section Styling */
35 .about, .projects {
36   margin-bottom: 20px;
37   padding: 15px;
38   background-color: white;
39   border: 1px solid #ccc;
40   border-radius: 5px;
41 }
```

Ateeb Qaiser

Web Developer | Problem Solver | Learner

About Me

I am a Computer Science student passionate about web development and coding.

Projects

Portfolio Website

A personal website built using HTML and CSS.

Calculator App

A simple JavaScript-based calculator.

◆ Step 2: Use Selectors and Layout Techniques

- **ID Selector:** `#main-title`
- **Class Selector:** `.tagline`, `.project-card`
- **Descendant Selector:** `section .project-card`
- **Float and Clear:** Used for `.project-card` and `.projects::after`
- **Modern Alternative:** You can replace float with **Flexbox** or **Grid** for responsive layouts.

Selector Type	Example in Code	Meaning / Use
ID Selector	<code>#main-title</code>	Styles an element with a unique ID
Class Selector	<code>.tagline</code> , <code>.project-card</code>	Styles multiple elements with the same class
Descendant Selector	<code>section .project-card</code>	Targets <code>.project-card</code> only inside a section
Float	<code>.project-card { float: left; }</code>	Makes elements align side-by-side
Clearfix	<code>.projects::after</code>	Clears floats to avoid layout breaks
Modern Option	Use Flexbox or Grid instead of float for responsive design	

Flexbox Alternative (Optional, Modern Layout)

```
.projects {  
  display: flex;  
  gap: 20px;  
  flex-wrap: wrap;  
}  
.project-card {  
  flex: 1 1 45%;  
}
```

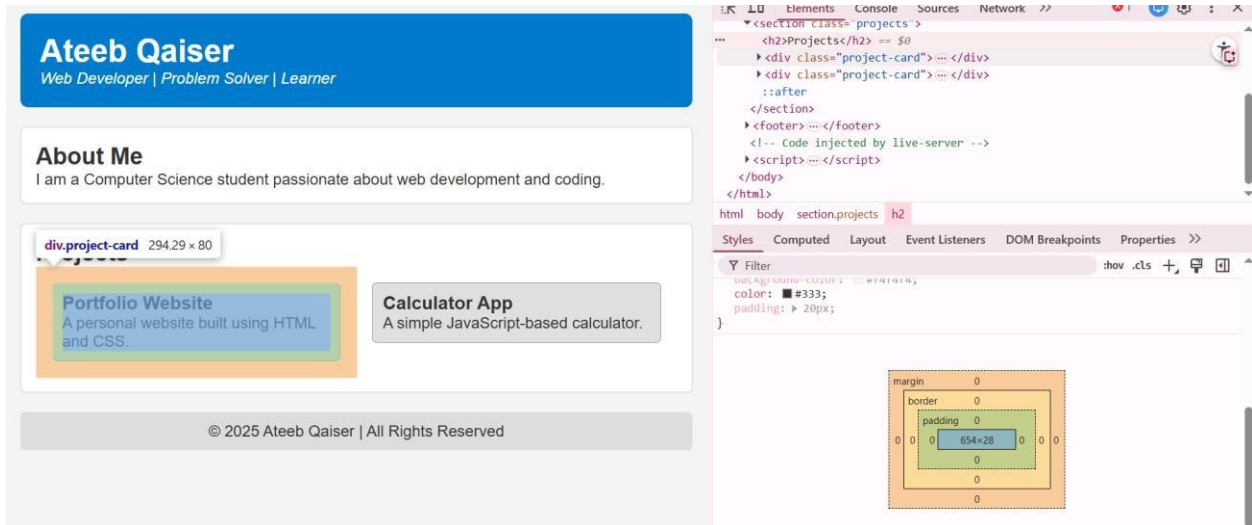
◆ Step 3: Use DevTools to Inspect Box Model

📄 How to Inspect:

1. Open the page in a browser.
2. Right-click on any element (e.g., `.project-card`) and choose **Inspect**.
3. In the **Elements tab**, look at the **Box Model** section:
 - Check **margin**, **border**, **padding**, and **content**.

- Adjust styles live to fix layout issues.

Deliverable: Take screenshots of the DevTools showing the box model for at least one element.



Final Deliverables

- index.html – Portfolio page
- style.css – CSS file with styling and layout
- Screenshots of **DevTools** showing box model inspection

Would you like me to generate a downloadable ZIP file with these files or help convert the layout to Flexbox/Grid for modern responsiveness?

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 _____