

Lahore Garrison University

DHA Phase 6 Lahore



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Section	G
Subject	Web Technologies
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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
{  fontstyle: italic;
}
```

```
/ Section Styling
/.about, .projects
{  marginbottom: 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;  borderradius:
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	#main-title	Styles an element with a unique ID
Class Selector	.tagline, .project-card	Styles multiple elements with the same class
Descendant Selector	section .project-card	Targets .project-card only inside a section
Float	.project-card { float: left; }	Makes elements align sidebyside
Clearfix	.projects::after	Clears floats to avoid layout breaks
Modern Option	Use Flexbox or Grid instead of float for responsive design	

Flexbox Alternative (Optional, Modern Layout)

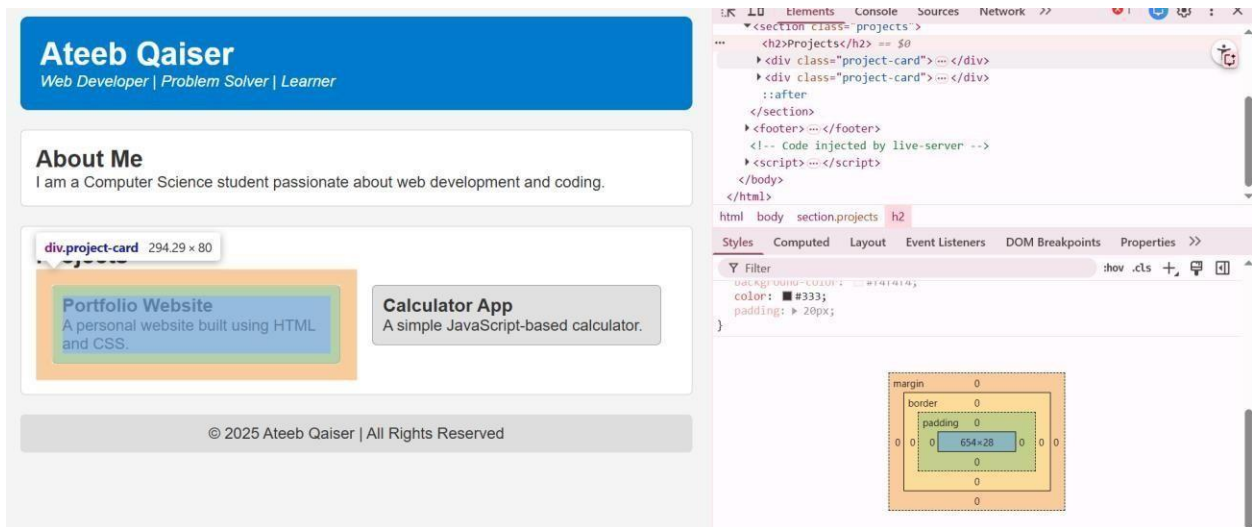
```
.projects
{
  display: flex;
  gap: 20px;
  flexwrap: wrap;
}
.project-card
{
  flex: 1 1 45%;
}
```

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:
 - o Check **margin**, **border**, **padding**, and **content**.
 - o 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

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 _____