



# Lab Report-02

<b>Course Code:</b>	<b>Course Title:</b>
CSE 416	Web Engineering Lab

Lab Report Details	
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Submitted To	Submitted By
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## Experiment No: 02

**Experiment Name:** Styling and Layout Techniques for Web Pages Using CSS.

### Objective:

The objective of this lab is to apply CSS styling and layout techniques to create responsive, well-designed web pages. Students will explore CSS selectors, properties, and modern layout systems (Flexbox, CSS Grid, and Media Queries) to ensure pages are visually appealing and adaptable to different screen sizes.

### Overview of CSS Styling and Layout Techniques:

No.	Concept	Description	Common Properties
1	CSS Selectors	Targeting HTML elements for styling.	element, .class, #id
2	Color & Background	Applying colors, gradients, and background images.	color, background-color, background-image
3	Typography	Styling text for readability and emphasis.	font-family, font-size, line-height
4	Box Model	Controlling space around elements.	margin, padding, border
5	Flexbox	One-dimensional layout for aligning elements.	display: flex, justify-content, align-items
6	CSS Grid	Two-dimensional layout system.	display: grid, grid-template-columns
7	Positioning	Placing elements precisely.	position, top, left
8	Media Queries	Responsive design adjustments for different devices.	@media (max-width: 768px)

## Code Snippets and Outcomes:

```
<style>

  body {

    font-family: Arial, sans-serif;

    margin: 0;

    padding: 0;

  }

  header {

    background-color: #4CAF50;

    color: white;

    padding: 1rem;

    text-align: center;

  }

  nav {

    background-color: #333;

    display: flex;

    justify-content: center;

  }

  nav a {

    color: white;

    padding: 14px 20px;

    text-decoration: none;

  }

  nav a:hover {

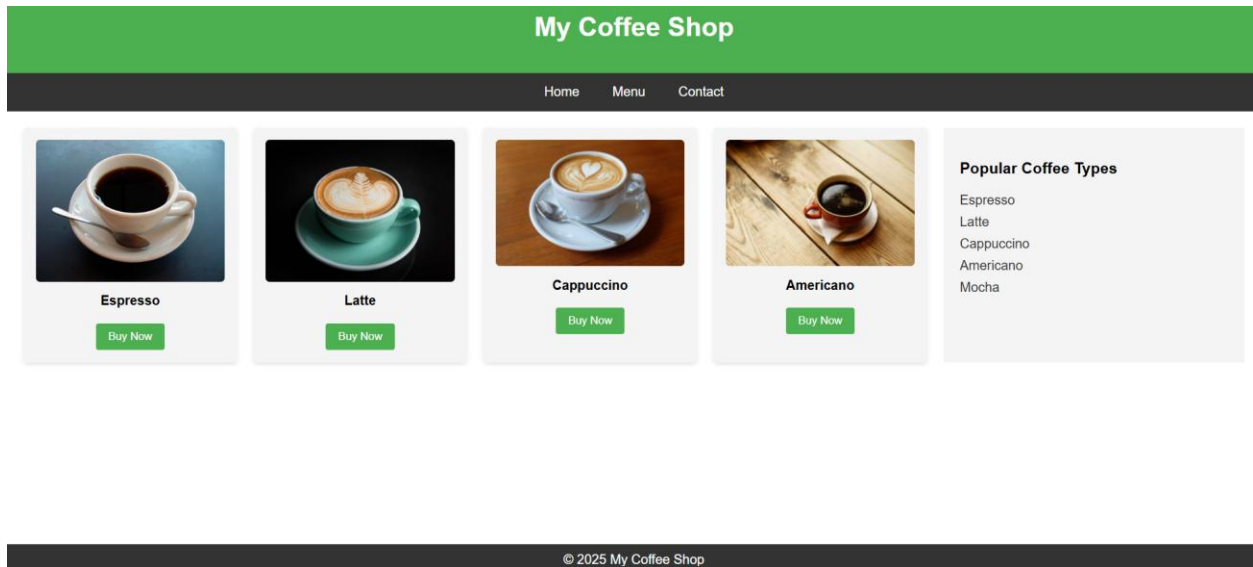
    background-color: #575757;

  }

  main {
```

```
display: grid;
grid-template-columns: 2fr 1fr;
gap: 20px;
padding: 20px;
}
article, aside {
    background: #f4f4f4;
    padding: 20px;
}
footer {
    background-color: #333;
    color: white;
    text-align: center;
    padding: 10px;
}
/* Responsive Design */
@media (max-width: 768px) {
    main {
        grid-template-columns: 1fr;
    }
    nav {
        flex-direction: column;
    }
}
```

## Output:



## Outcome:

- Desktop: Two-column layout with navigation bar and footer.
- Mobile: Single-column stacked layout with vertical navigation.
- Responsive design ensures usability across devices.

## Conclusion:

By using CSS selectors, layout properties, and responsive techniques like Flexbox, Grid, and Media Queries, we created a well-structured and visually appealing webpage. The design adapts to different screen sizes, ensuring accessibility and user-friendliness across devices.

## References:

<https://developer.mozilla.org/en-US/docs/Web/CSS>

<https://www.w3schools.com/css/>

<https://www.w3schools.com/css/>