



# Demonstrating My Custom Flexbox Layout with HTML & CSS

A practical walkthrough of building responsive, flexible layouts using modern CSS techniques

# What is Flexbox?



## Flexible Layout Model

A modern CSS approach designed for creating flexible, one-dimensional layouts that adapt to content and screen size



## Easy Alignment

Enables straightforward alignment, distribution, and dynamic resizing of items within a container



## Responsive Ready

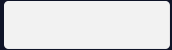
Ideal for responsive design that seamlessly adapts to different screen sizes and devices

# Flexbox Layout Demo

Box 2

Box 3

Box 4



# Key Flexbox Properties I Used

1

## `flex-direction`

Controls whether items flow in a row (horizontal) or column (vertical). Sets the main axis orientation.

2

## `justify-content`

Aligns items horizontally along the main axis. Options include flex-start, center, flex-end, space-between, and space-around.

3

## `align-items`

Aligns items vertically along the cross axis. Common values are flex-start, center, flex-end, and stretch.

4

## `flex-grow`, `shrink` & `basis`

Together these control how items expand or contract to fill available space based on their content and available room.

# My Flexbox Layout Structure

## HTML & CSS Overview

01

### Container Setup

---

Created parentcontainer with `display: flex` and `flex-direction: row` for horizontal layout

03

### Media Queries

---

Added responsiveadjustments for smaller screens using CSS media queries

02

### Item Styling

---

Applied flexiblewidths and margins to children for proper spacing and responsive behavior

04

### Flex Wrap

---

Implemented `flex-wrap: wrap` to allow items to flow to new lines when needed

# HTML Structure & CSS Code

## HTML Structure

```
<div class="container">  <div  
class="item">Item 1</div>  <div  
class="item">Item 2</div>  <div  
class="item">Item      3</div>  
</div>
```

## CSS Styles

```
.container {  
  display: flex;  
  flex-direction: row;  
  justify-content: space-between;  
  align-items: center;  
}  
  
.item {  
  flex: 1;  
  margin: 10px;  
}
```

❏ **Insert screenshot or diagram of your HTML structure and CSS code snippet here. Visualize the container and flex items with annotated code highlights showing your specific implementation.**

# Visual Result of My Flexbox Layout



## Dynamic Alignment

Items automatically align and space themselves based on container size and flex properties applied



## Horizontal&Vertical Control

Demonstrate how `justify-content` affects horizontal alignment while `align-items` controls vertical positioning



## Responsive Behavior

Show how the layout adapts seamlessly across different screen widths, from desktop to mobile views



## Flexible Sizing

Items resize proportionally to fill available space while maintaining proper spacing and alignment

> index.html > html > body

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <title>Flexbox Layout</title>
6      <meta name="viewport" content="width=device-width, initial-scale=1.0">
7      <link rel="stylesheet" href="style.css">
8  </head>
9  <body>
10
11  <h1>Flexbox Layout Demo</h1>
12
13  <div class="container">
14
15      <div class="box">Box 1</div>
16      <div class="box">Box 2</div>
17      <div class="box">Box 3</div>
18      <div class="box">Box 4</div>
19      <div class="box">Box 5</div>
20
21  </div>
22
23  </body>
24  </html>
```



# Challenges & Solutions



## Uneven Item Sizes

**Challenge:** Different content lengths caused inconsistent spacing

**Solution:** Used `flex-basis` with min/max width constraints to control flexibility



## Cross-Browser Compatibility

**Challenge:** Ensuring consistent rendering across browsers

**Solution:** Tested thoroughly on Chrome, Firefox, and Edge with vendor prefixes where needed



## Narrow Screen Overflow

**Challenge:** Items overflowing on small screens breaking layout

**Solution:** Implemented `flex-wrap: wrap` and responsive media queries for mobile

# Summary & Next Steps

## Powerful Control

Flexbox provides powerful, flexible layout control with minimal CSS code required

## Smooth Adaptation

My custom layout adapts smoothly across devices and varying content sizes

## Future Extensions

Ready to extend with nested flex containers or integrate with CSS Grid for complex layouts

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## Questions & Demo Walkthrough

Let's explore the code together and see how different property values affect the layout behavior in real-time