



# 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 parent container with `display: flex` and `flex-direction: row` for horizontal layout

03

### Media Queries

Added responsive adjustments for smaller screens using CSS media queries

02

### Item Styling

Applied flexible widths 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

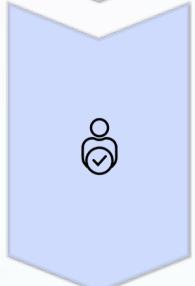
**Solution:** Used `flex-basis` with min/max width constraints to control flexibility



## 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

## Questions & Demo Walkthrough

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