

Day 2 → Exploring Advanced Layout Techniques: CSS Flexbox

1. Introduction to CSS Flexbox:

CSS Flexbox is a layout model that provides a flexible way to distribute space among elements within a container. It simplifies the process of creating one-dimensional layouts, such as horizontal or vertical alignment, and handles complex alignment scenarios.

Example:

```
```css
.container {
 display: flex;
 justify-content: center;
 align-items: center;
}
```
```

2. Exploring Flexbox Properties:

Flexbox offers various properties that control the behavior and appearance of flex items. We will cover key properties such as flex-direction, flex-wrap, justify-content, align-items, and align-self. Understanding these properties enables precise control over the arrangement and positioning of elements.

Example:

```
```css
.container {
```

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

## Flex Container Properties

- Present key properties for the flex container:
  - `display: flex` to enable Flexbox layout.
  - `flex-direction` to set the direction of the main axis (row or column).
  - `justify-content` to align items along the main axis.
  - `align-items` to align items along the cross axis.

## Flex Item Properties

- Present important properties for flex items:
  - `flex-grow` to define how much the item can grow to fill available space.
  - `flex-shrink` to determine how much the item can shrink when space is limited.
  - `flex-basis` to specify the initial size of the item.
  - `flex` (shorthand) to combine `flex-grow`, `flex-shrink`, and `flex-basis`.

## **Flexbox Alignment**

- Explain alignment within the flex container:
  - `justify-content` for horizontal alignment along the main axis.
  - `align-items` for vertical alignment along the cross axis.
  - `align-self` to override alignment for individual items.

## **Flexbox Layout Examples**

- Showcase practical examples of common Flexbox layouts, such as:
  - Horizontally centered content.
  - Vertically aligned content.
  - Equal-width columns.
  - Responsive grid layouts.

## **Responsive Design with Flexbox**

- Discuss how Flexbox enables responsive design:
  - Explain how flex items can automatically wrap or collapse based on available space.

## **Code:**

[https://github.com/Vijayanandr2000/zybisys\\_training/tree/main/CSS](https://github.com/Vijayanandr2000/zybisys_training/tree/main/CSS)