

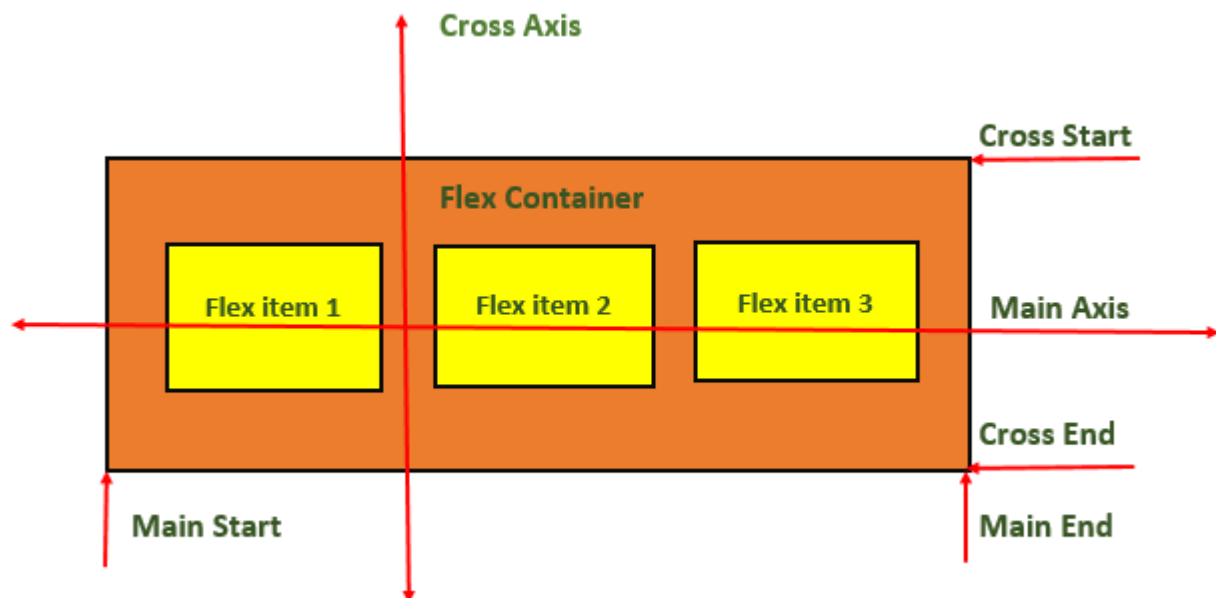
CSS - Flexbox layout

CSS flexbox is a layout model in CSS that provides an efficient and flexible way to arrange and distribute space between items within a container. It arranges elements in a single dimension, either horizontally or vertically, within a container.

Flexbox organizes elements within a container along a single dimension, which can be either horizontally or vertically aligned.

This chapter will cover all the properties for managing the positioning, alignment, and gaps between elements along both the main and cross axes.

The following diagram demonstrates the flexbox layout for reference:



CSS Flexbox Layout

Create flexbox layout by defining a parent container with the class **flexbox-container**.

Let us see an example –

```
<html>
<head>
<style>
  .flex-container {
    display: flex;
```

```
        background-color: green;
    }
    .flex-container>div {
        background-color: yellow;
        margin: 10px;
        padding: 15px;
    }
</style>
</head>
<body>
    <div class="flex-container">
        <div>Flex item 1</div>
        <div>Flex item 2</div>
        <div>Flex item 3</div>
        <div>Flex item 4</div>
    </div>
</body>
</html>
```

CSS Display - Flex

Flexbox layout uses **display: flex** property for aligning and distributing elements within a layout container.

Let us see an example –

```
<html>
<head>
<style>
    .flex-container {
        display: flex;
        background-color: green;
    }
    .flex-container>div {
        background-color: yellow;
        margin: 10px;
        padding: 15px;
    }
</style>
</head>
<body>
    <div class="flex-container">
```

```
<div>Flex item 1</div>
<div>Flex item 2</div>
<div>Flex item 3</div>
</div>
</body>
</html>
```

CSS Display - Inline-flex

Flexbox layout can also use **display: inline-flex** property to create an inline-level flex container, allowing elements to be aligned and distributed within it.

Let us see an example –

```
<html>
<head>
<style>
  .flex-container {
    display: inline-flex;
    background-color: green;
  }
  .flex-container>div {
    background-color: yellow;
    margin: 10px;
    padding: 15px;
  }
</style>
</head>
<body>
  <div class="flex-container">
    <div>Flex item 1</div>
    <div>Flex item 2</div>
    <div>Flex item 3</div>
  </div>
</body>
</html>
```



Flex item 1

Flex item 2

Flex item 3

CSS Flexbox Container - Related Properties

Some of the properties of the flex container are listed as follows –

property	value
flex-direction	Sets the flex direction of the flex items.
flex-wrap	Sets whether flex items should wrap onto the next line
justify-content	Sets the alignment of flex items along the main axis.
align-items	Sets the alignment of flex items along the cross axis.
align-content	Sets the alignment and spacing of flex lines within the flex container.
flex-flow	Sets both the flex-direction and flex-wrap properties.

CSS Flexbox Items - Related Properties

Some of the properties of the flex items are as follows –

property	value
flex-grow	Sets flex item to grow within a flex container.
flex-shrink	Sets flex item to shrink in size to fit the available space.
flex-basis	Sets the initial size of a flex item.
flex	Shorthand property, combines three flex-related properties: flex-grow, flex-shrink, and flex-basis.

align-self

Sets the alignment of a specific flex item along the cross-axis.