**“ALL ABOUT FLEXBOX”**

**What is Flexbox?**

Flexbox (short for Flexible Box Layout) is a tool in CSS that helps you arrange items in a line or a column, and makes it easier to:

* Align items (left, right, center, etc.)
* Space items evenly
* Resize items to fit the space available

It's used to build responsive layouts that look good on different screen sizes.

**Basic Structure**

**Example (HTML)**

<div class="container">

<div class="box">1</div>

<div class="box">2</div>

<div class="box">3</div>

</div>

**Example (CSS)**

.container {

display: flex; /\* turns the container into a flexbox \*/

}

.box {

width: 100px;

height: 100px;

background: lightblue;

margin: 10px;

}

**Common Flexbox Properties**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| |  | | --- | | **Property** |  |  | | --- | |  | | | **What it does** | | --- |  |  | | --- | |  | |
| |  | | --- | | display: flex; |  |  | | --- | |  | | |  |  |  | | --- | --- | --- | | |  | | --- | | Makes the container a flexbox |  |  | | --- | |  | |  |  | | --- | |  | |
| |  | | --- | | flex-direction: row / column; |  |  | | --- | |  | | |  | | --- | | Arrange items in a row (default) or column |  |  | | --- | |  | |
| |  | | --- | | justify-content |  |  | | --- | |  | | |  | | --- | | Align items **horizontally** (left, center, space-between, etc.) |  |  | | --- | |  | |
| |  | | --- | | align-items |  |  | | --- | |  | | |  | | --- | | Align items **vertically** (top, center, bottom) |  |  | | --- | |  | |
| |  | | --- | | flex-wrap |  |  | | --- | |  | | Allows items to wrap to the next line if needed |

* **justify-content:**

It controls how items are spaced horizontally (left to right) inside the flex container.

justify-content: value;

| **Value** | **What it does** |
| --- | --- |
| flex-start | Items are **aligned to the left** |
| flex-end | Items are **aligned to the right** |
| center | Items are **centered** in the container |
| space-between | **First item left, last right**, others evenly spaced |
| space-around | Items have **equal space around** them |
| space-evenly | Items have **equal space between and around** |
|  |  |

* **align-items:**

It controls **how items are aligned vertically** (top to bottom) **within the container**.

align-items: value;

| **Value** | **What it does** |
| --- | --- |
| stretch | Items **stretch** to fill the container (default) |
| flex-start | Items are **aligned to the top** of the container |
| flex-end | Items are **aligned to the bottom** |
| center | Items are **centered vertically** |
| baseline | Items align by their **text baseline** (useful for text) |

**MAIN ELEMENTS:**

1. **flex-wrap**

flex-wrap tells Flexbox to **wrap items onto a new line** when there's not enough space.

| **Value** | **Meaning** |
| --- | --- |
| nowrap | Default. Don’t wrap items (they overflow). |
| wrap | Wrap items to the next line if needed. |
| wrap-reverse | Wrap items, but in **reverse** order (bottom to top). |

1. **flex-shrin**

Controls how much an item shrinks when there's not enough space.

flex-shrink: 1; /\* Default: it can shrink \*/

flex-shrink: 0; /\* It will NOT shrink \*/

1. **flex-grow**

Controls how much an item grows when there's extra space in the container.

flex-grow: 1; /\* Item will grow to fill space \*/

flex-grow: 0; /\* Item will NOT grow (default) \*/

1. **min-width and max-width**

* **min-width:**

Sets the **minimum width** an element can be. It won’t go smaller than this.

min-width: 200px;

* **max-width:**

Sets the **maximum width** an element can be. It won’t grow bigger than this.

max-width: 600px;

**Youtube:**

https://www.youtube.com/watch?v=wsTv9y931o8