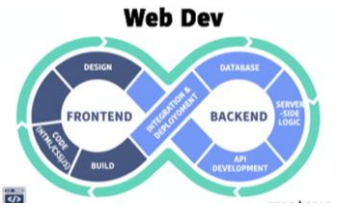
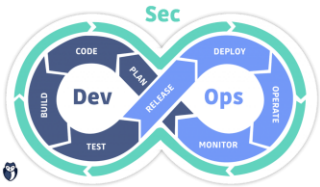




Day 25

"Web Development + Security"

More on CSS Selectors:

CSS Cheat Sheet:

Selector Type	Syntax	Example	Meaning / What It Selects
Universal Selector	*	* { margin: 0; }	Selects **all elements**
Element Selector	tag	p { color: blue; }	Selects **all <p>** elements
Class Selector	.classname	.intro { color: green; }	Selects all elements with class="intro"
ID Selector	#idname	#main { background: yellow; }	Selects element with id="main"
Group Selector	A, B	h1, h2 { color: red; }	Applies same style to **multiple elements**
Descendant Selector	A B	div p { color: blue; }	Selects <p> **inside**
Child Selector	A > B	div > p { color: orange; }	Selects **direct child** <p> of
Adjacent Sibling	A + B	h1 + p { color: purple; }	Selects <p> **immediately after** <h1>
General Sibling	A ~ B	h1 ~ p { color: gray; }	Selects **all <p> after <h1>** (siblings)
Attribute Selector	[attr]	[title] { color: pink; }	Elements **having** title attribute
	[attr=value]	[type="text"]	Elements with attribute **equal to** given value
	[attr^=value]	[class^="btn"]	Attribute **starts with** value
	[attr$=value]	[src$=".jpg"]	Attribute **ends with** value
	[attr*=value]	[class*="nav"]	Attribute **contains** value

Selector Type	Syntax	Example	Meaning / What It Selects
Pseudo-class	:pseudo-class	a:hover { color: red; }	Defines a **state** of an element
Common Pseudo-classes	:hover, :focus, :active, :nth-child(), :first-child, :last-child	—	Used for interactivity and element positions
Pseudo-element	::before, ::after	p::before { content:" 👉"; }	Adds **content before or after** an element
Negation Selector	:not(selector)	p:not(.special)	Selects <p> **except** those with .special

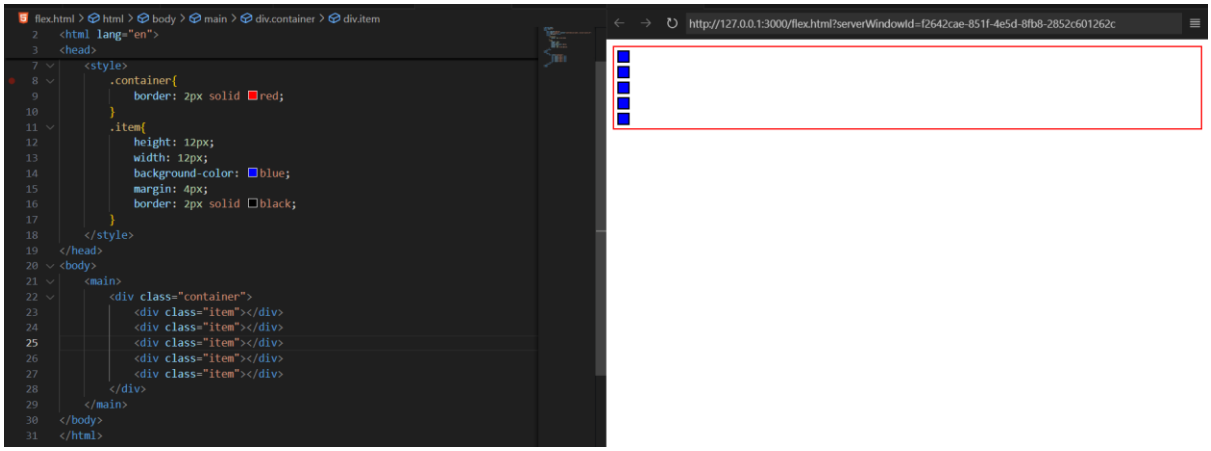
CSS Flexbox:

What is Flex box?

Flexbox (Flexible Box) is a CSS layout module that allows you to align and distribute space among items in a container, even when their size is unknown or dynamic. Think of it as a magic tool to control layouts easily, without floats or complicated positioning.

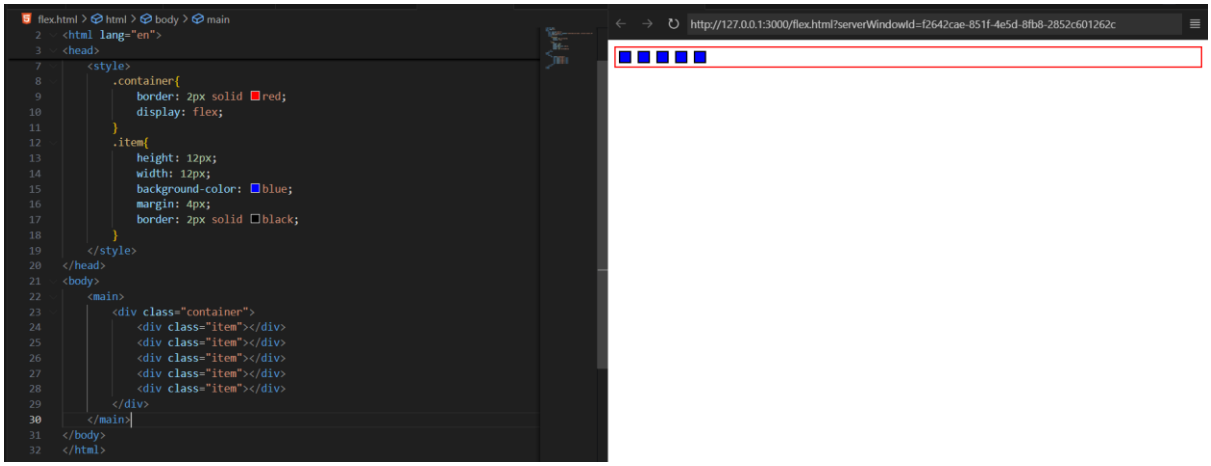
To understand this, we will first see how without it things work?

A basic example of s: clearly, we can see that all the get one above other, like in a column.




```
<html lang="en">
<head>
    <style>
        .container{
            border: 2px solid red;
        }
        .item{
            height: 12px;
            width: 12px;
            background-color: blue;
            margin: 4px;
            border: 2px solid black;
        }
    </style>
</head>
<body>
    <main>
        <div class="container">
            <div class="item"></div>
            <div class="item"></div>
            <div class="item"></div>
            <div class="item"></div>
            <div class="item"></div>
        </div>
    </main>
</body>
</html>
```

What if we add display:flex in the .container? We will see that all the come in one row, as shown below:




```
<html lang="en">
<head>
    <style>
        .container{
            border: 2px solid red;
            display: flex;
        }
        .item{
            height: 12px;
            width: 12px;
            background-color: blue;
            margin: 4px;
            border: 2px solid black;
        }
    </style>
</head>
<body>
    <main>
        <div class="container">
            <div class="item"></div>
            <div class="item"></div>
            <div class="item"></div>
            <div class="item"></div>
            <div class="item"></div>
        </div>
    </main>
</body>
</html>
```

Main Flex Properties

A. Container Properties

1. **flex-direction** → Sets the main axis (row or column)

```
.container {
  display: flex;
  flex-direction: row;   /* row (default), column, row-reverse, column-reverse */
}
```

2. **justify-content** → Align items along the **main axis**

```
.container {
  justify-content: flex-start; /* flex-start, flex-end, center, space-between, space-around, space-evenly */
}
```

3. **align-items** → Align items along the **cross axis** (perpendicular to main axis)

```
.container {
  align-items: stretch; /* flex-start, flex-end, center, baseline, stretch */
}
```

4. **flex-wrap** → Allow items to wrap to next line

```
.container {
  flex-wrap: wrap; /* nowrap (default), wrap, wrap-reverse */
}
```

5. **gap** → Space between items

```
.container {
  gap: 10px; /* sets spacing between flex items */
}
```

B. Item Properties

1. **flex-grow** → Make an item grow to fill available space

```
.item {
  flex-grow: 1; /* default 0 */
}
```

2. **flex-shrink** → Make an item shrink if necessary

```
.item {
  flex-shrink: 1; /* default 1 */
}
```

3. **flex-basis** → Initial size of item before growing/shrinking

```
.item {
  flex-basis: 200px;
}
```

4. **align-self** → Override align-items for a single item

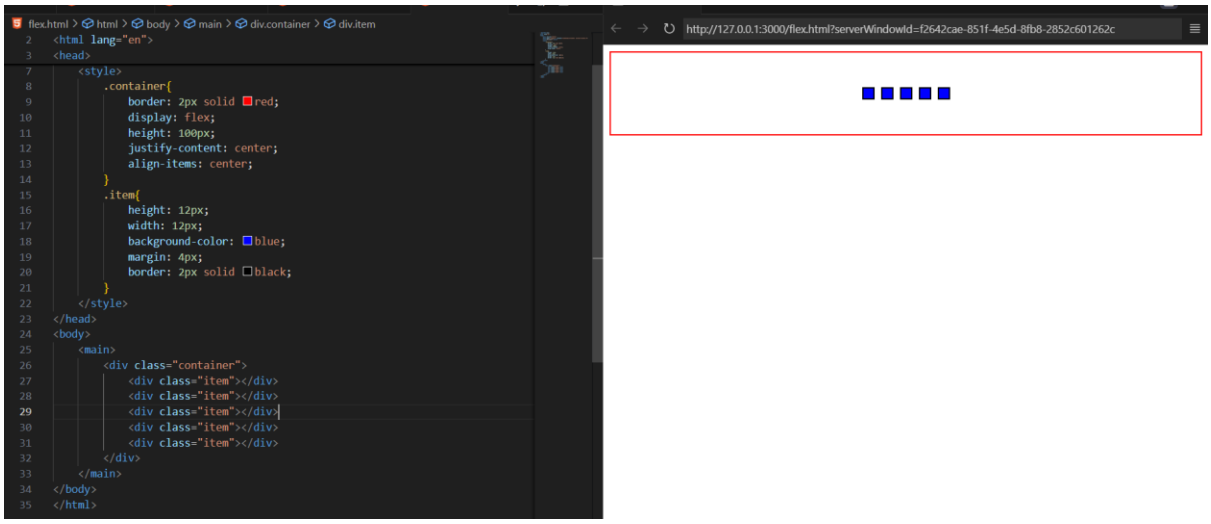
.item {

  align-self: center; /* auto, flex-start, flex-end, center, baseline, stretch */

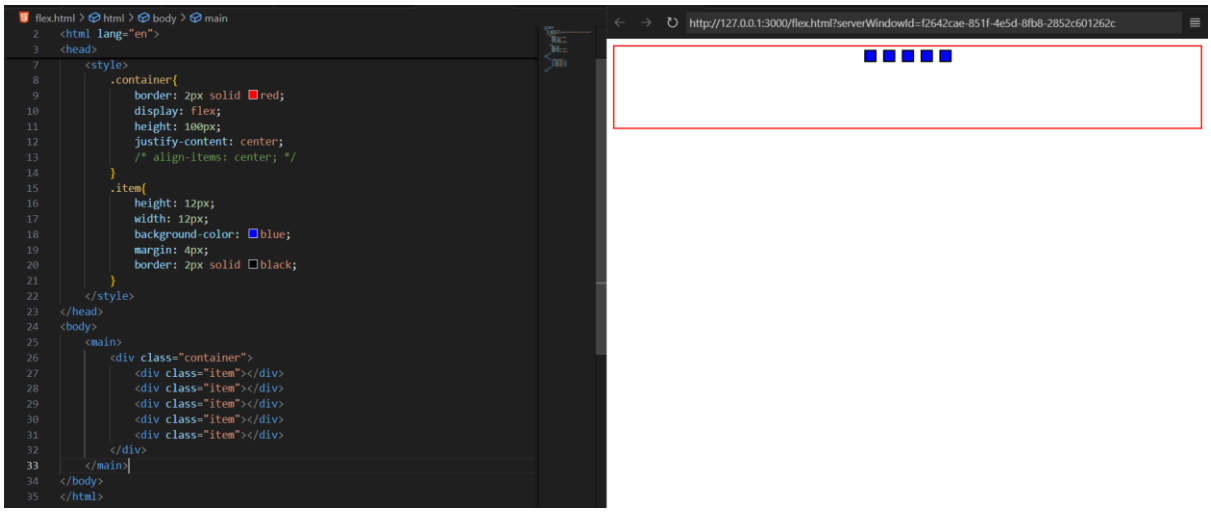
}

Now, what to do in order to make the elements in centre?

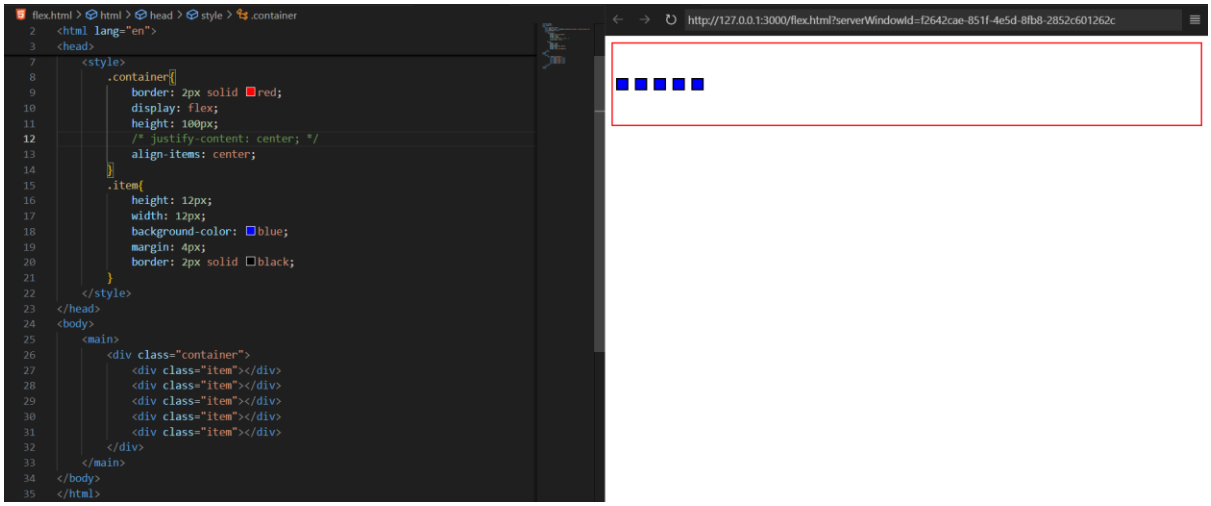
We will use the property, justify-content: center; and align-items: center; as shown below:



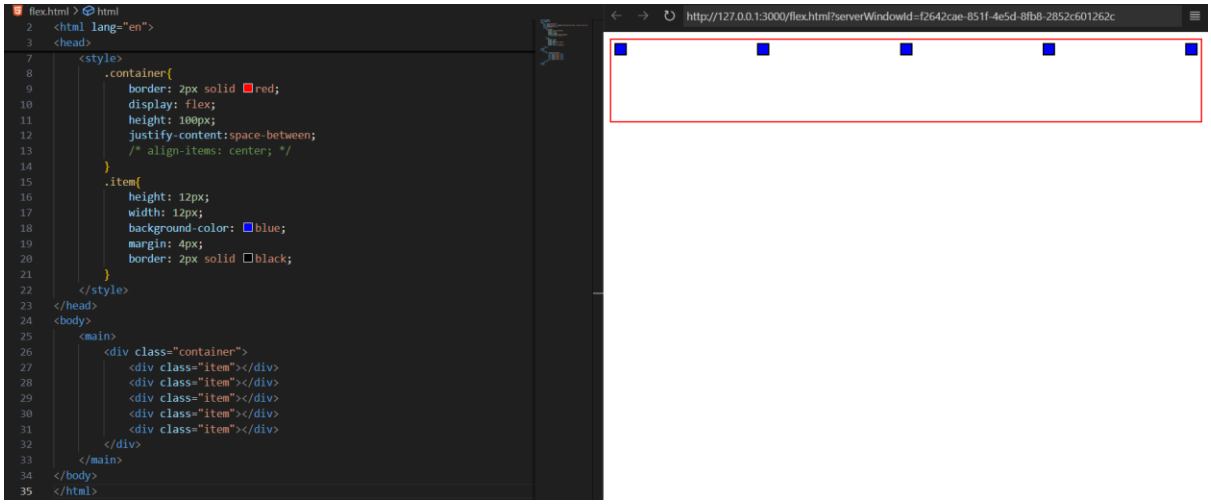
In case align-item center is not there: then horizontally only it will be in centre not vertically.



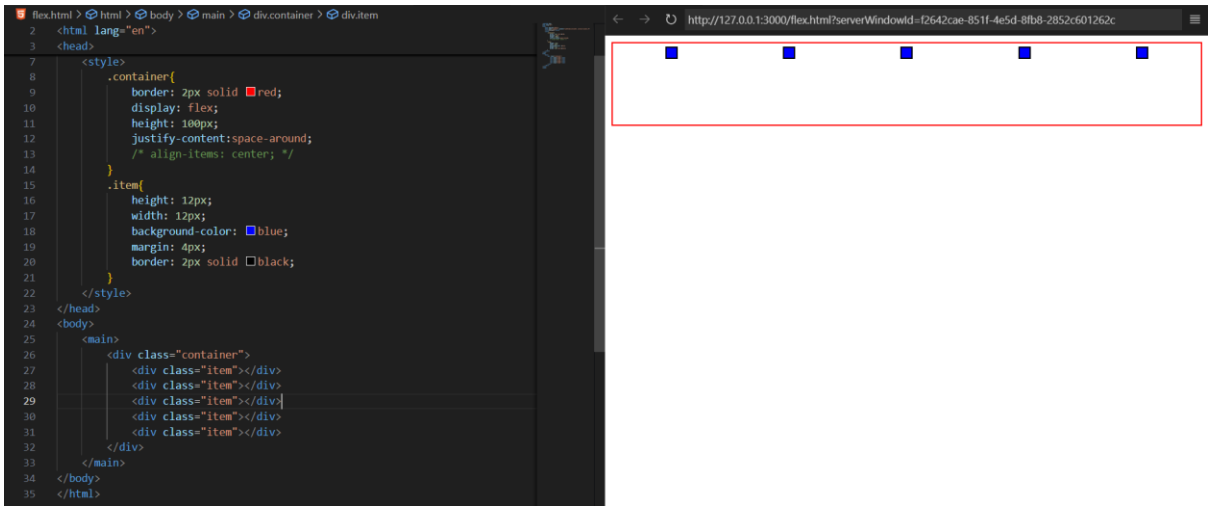
In case justify-content: center is not there: then vertically nly it will be in centre not horizontally.



We can also do justify-content: space-between: as shown below



We can also do justify-content: space-around: as shown below



So, do you know what actually happens when we apply this flex display property?

Basically, It Make a container a flex container using:

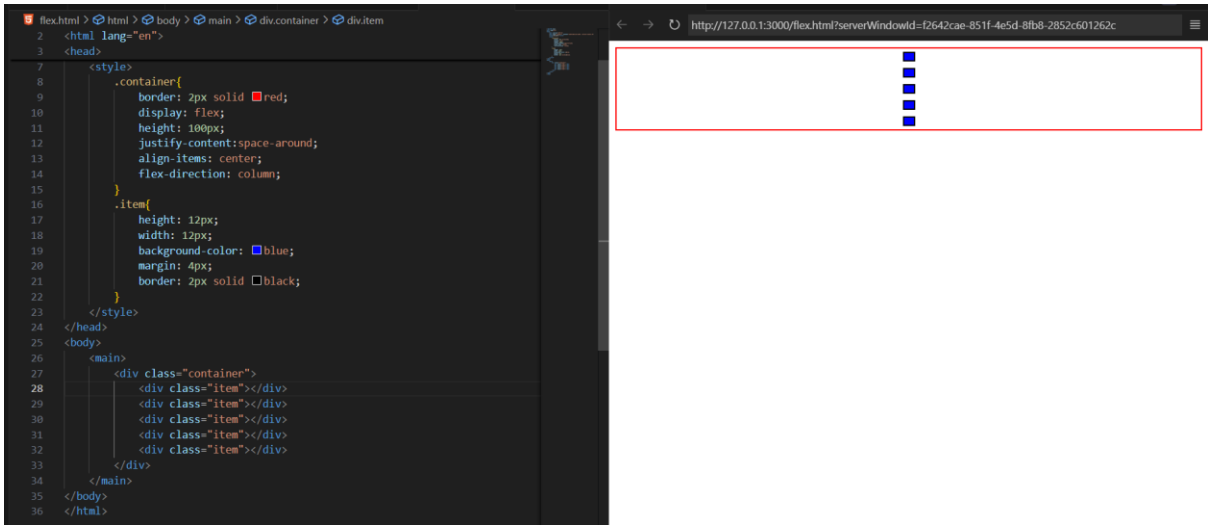
.container {

display: flex;

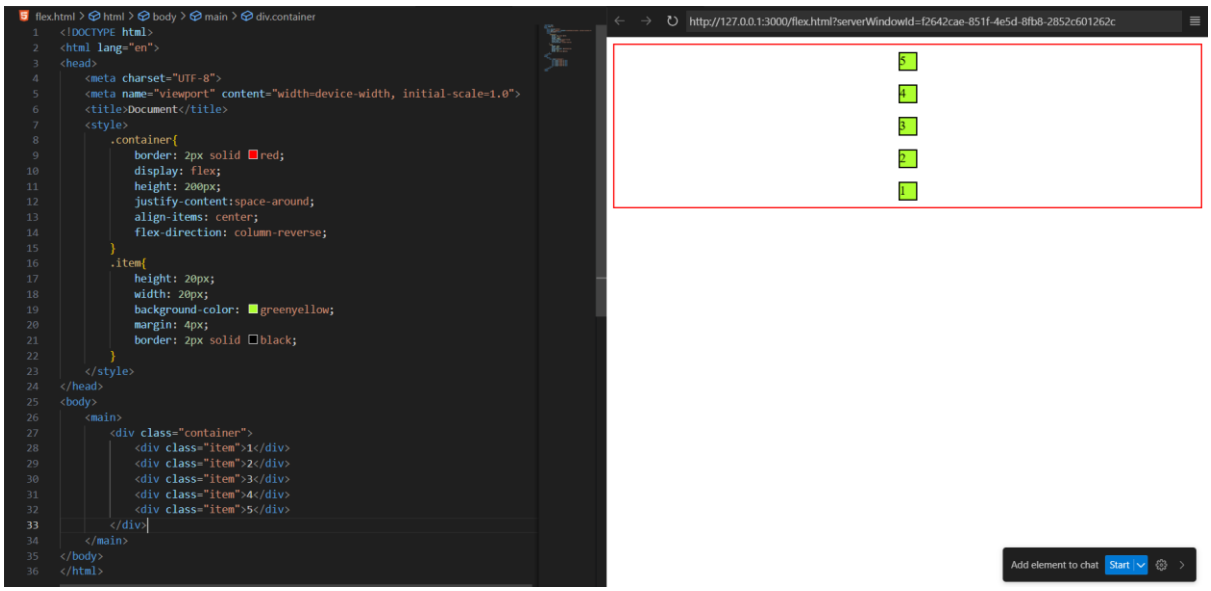
}

All direct children of .container automatically become flex items.

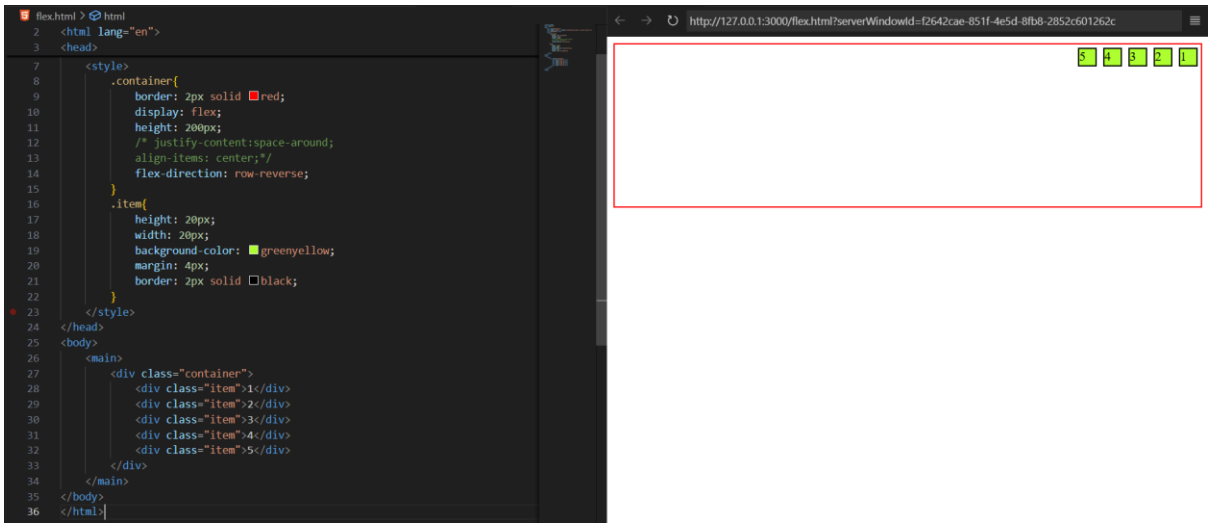
Now, let’s understand the flex-direction:column, basically it will change its direction to column:



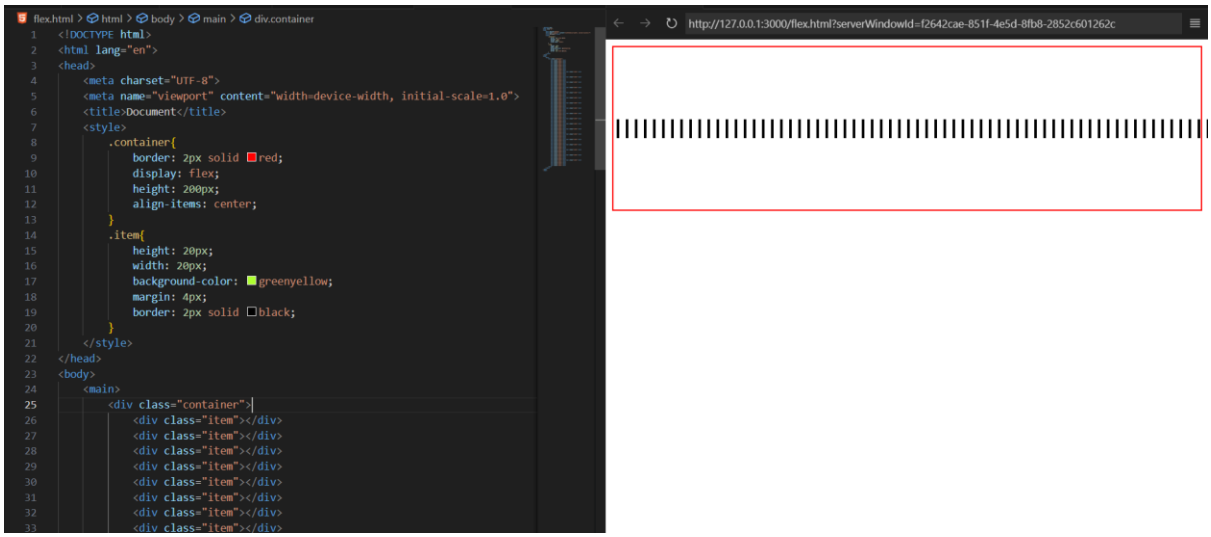
Example: use of flex-direction:column-reverse



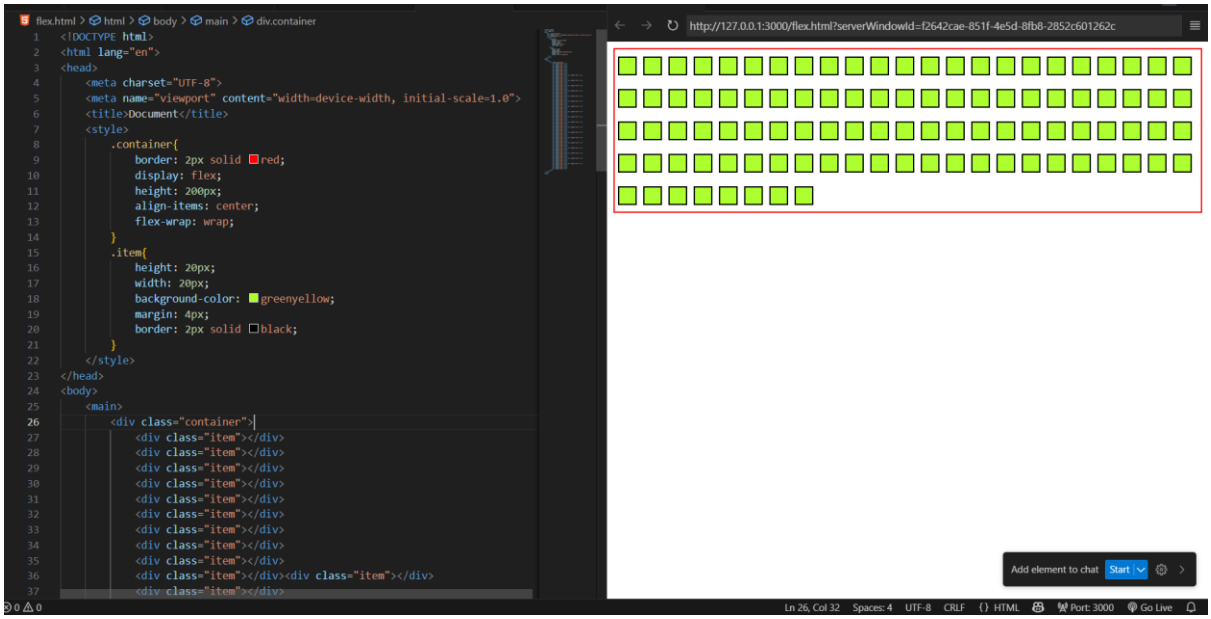
Example: use case of flex-direction:row-reverse



Now, suppose we have increased the number of too much, then it will overflow. As shown below:

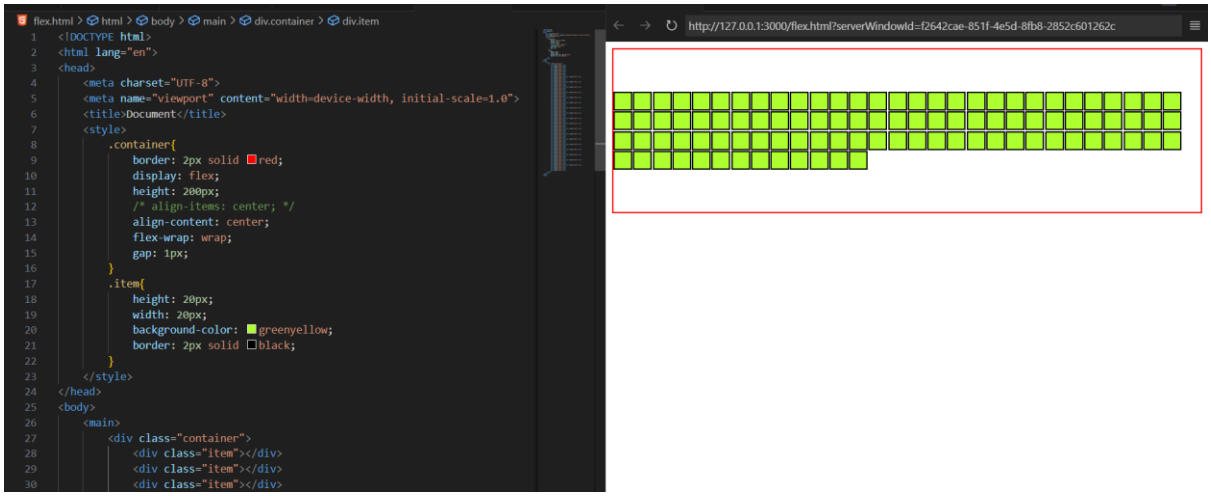


To fix, this we will use the property, flex-wrap:wrap

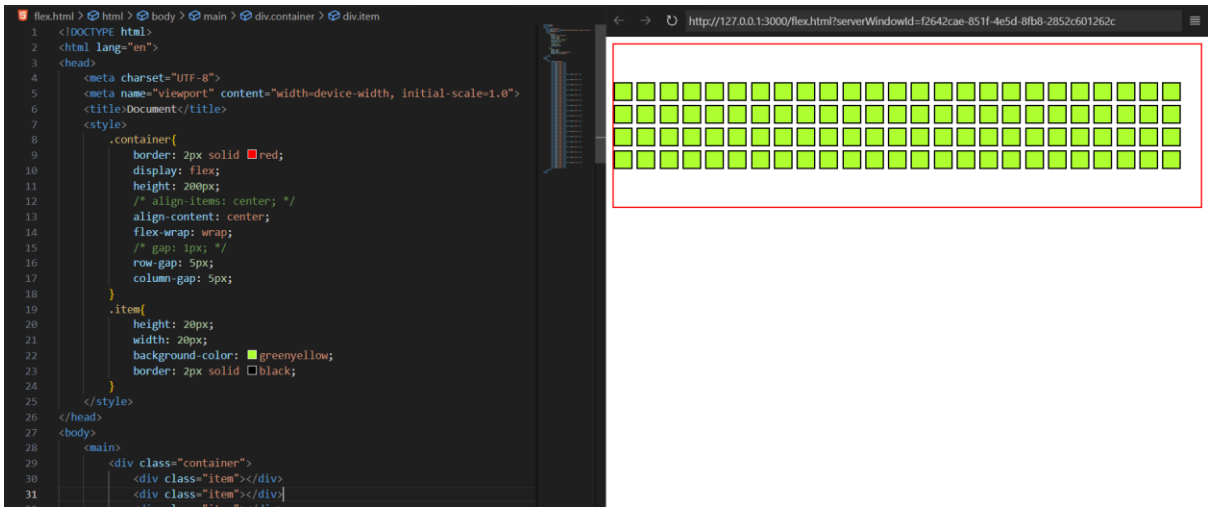


Example: use case of align-content:center. Basically, we use it when the items be in more than one line because of flex-wrap.

Now, adding the gap property in the container:



We can even, separately tell the row and column gap:



--The End--