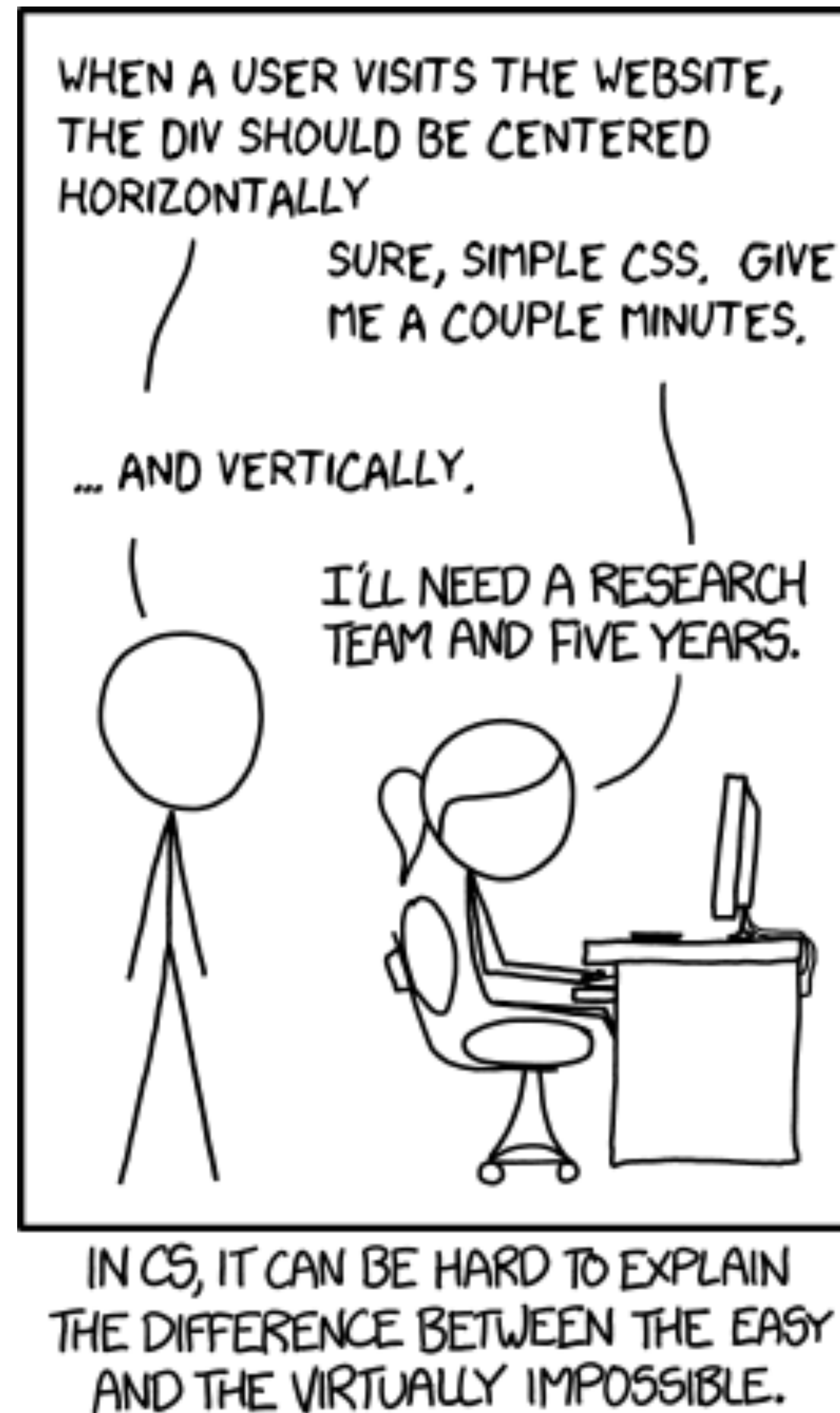


# REMINDER TO RECORD

# FLEXBOX



<https://css-tricks.com/centering-css-complete-guide/>

# What is CSS Flexbox?

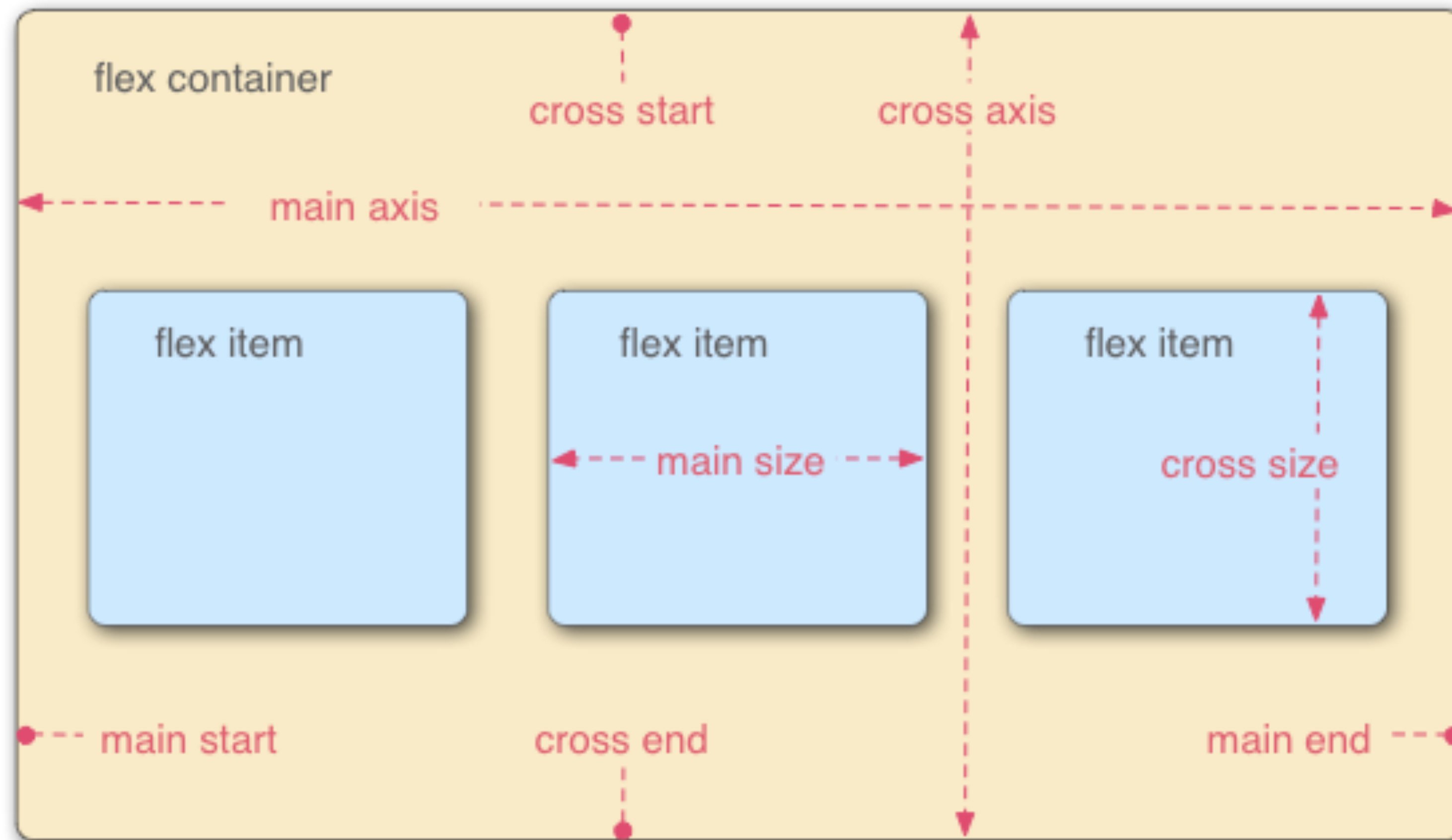
- The Flexbox Layout module aims at providing a more efficient way to lay out, align, and distribute space among items in a container, even when their size is unknown and/or dynamic (thus the word "flex").

# Can I use it?

[caniuse.com](https://caniuse.com)

IE	Edge *	Firefox	Chrome	Safari	Opera	iOS Safari *	Opera Mini *	Android Browser *	Chrome for Android
8			45					<sup>1</sup> 4.3	
9			46					4.4	
<sup>2 4</sup> 10		43	47			8.4		4.4.4	
<sup>4</sup> 11	13	44	48	9	34	9.2	8	47	47
	14	45	49	9.1	35	9.3			
		46	50		36				
		47	51						

# Part One: The Container



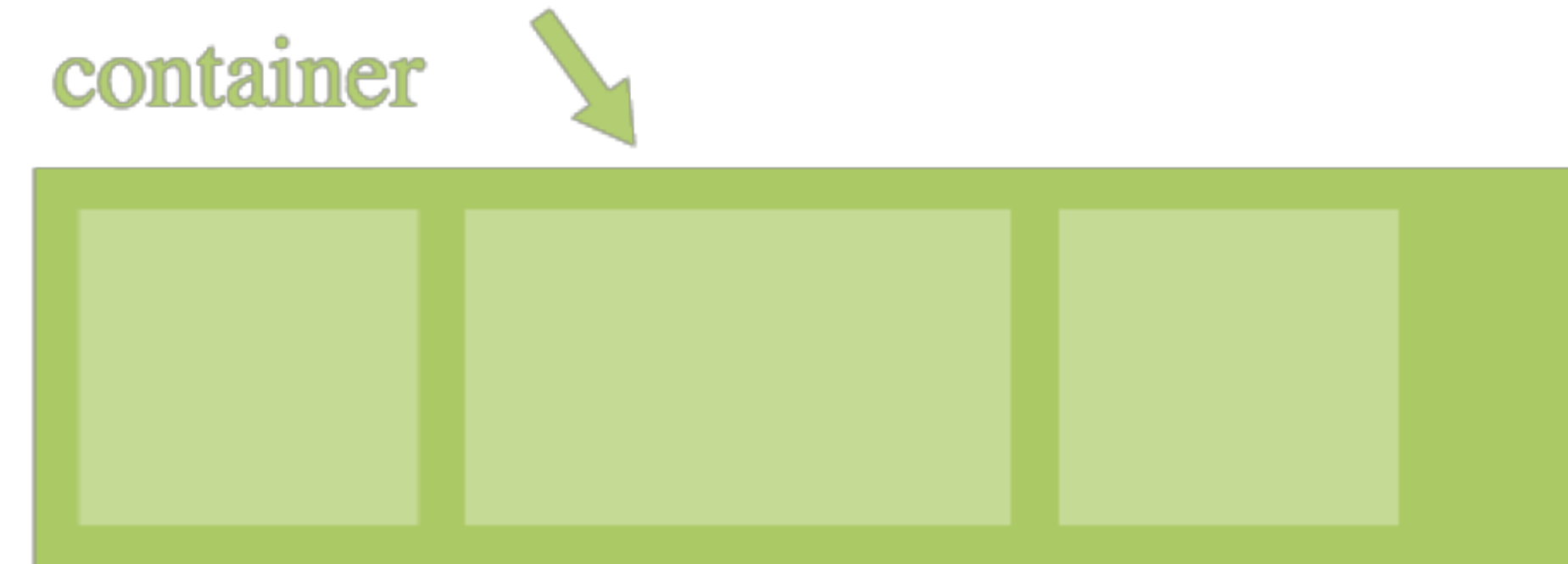
# Flexbox Container: display

- **display: flex** defines an element as a flex container and enables a flex context for all its direct children.

```
.container {  
  display: flex; /* or inline-flex */  
}
```

# Flexbox Container

- Flexbox gives the container the ability to alter its items' dimensions (and order) to best fill the available space.
- A flex container expands flexible items to fill free space, or shrinks them to prevent overflow.





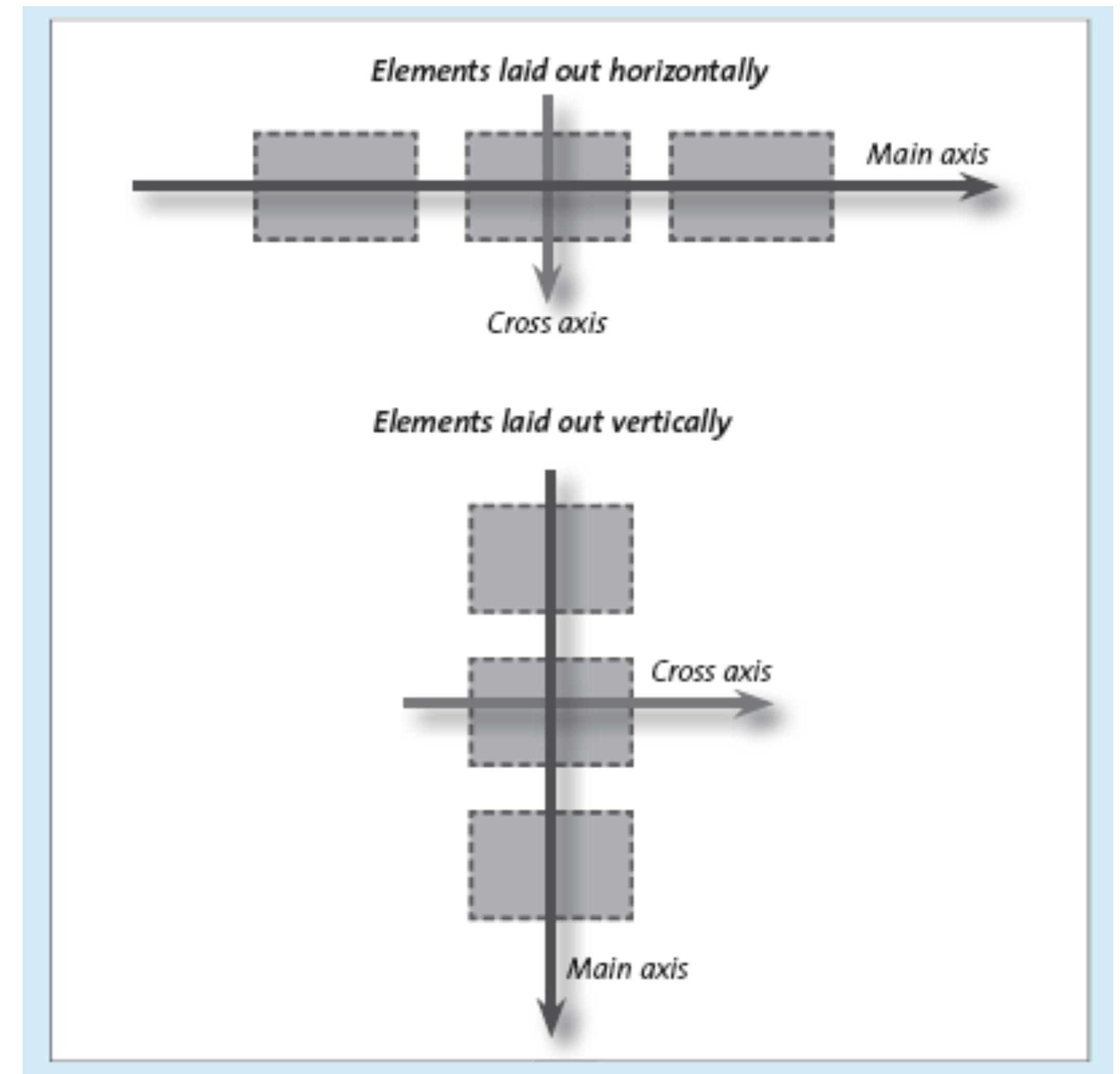
# Flexbox Container: flex-direction

- Flexbox is (aside from optional wrapping) a single-direction layout concept. Think of flex items as primarily laying out either in horizontal rows or vertical columns.
- “main axis” and “cross axis”



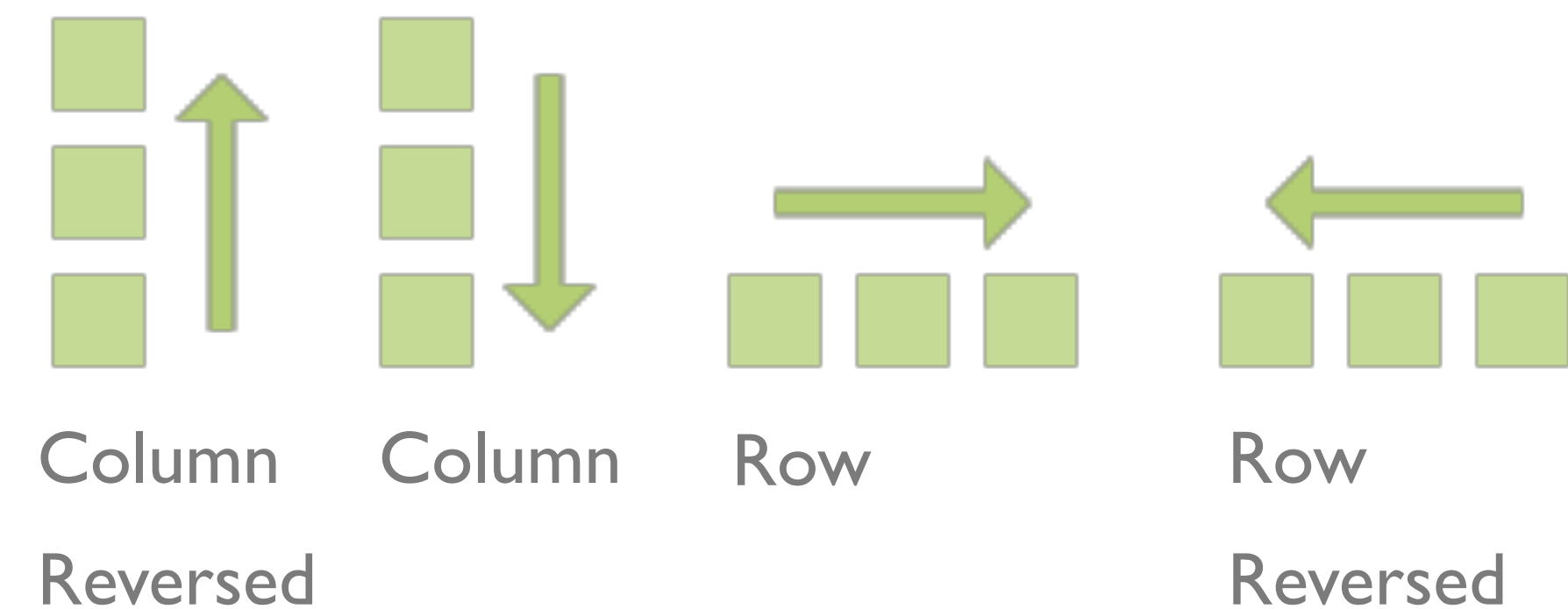
# MAIN AXIS | CROSS AXIS

- The main-axis is defined by the direction of the flex-direction property
- The cross-axis runs perpendicular to the main



# Flexbox Container: Direction

- Think of flex items as primarily laying out either in horizontal rows or vertical columns.



```
.container {  
  flex-direction: row | row-reverse | column | column-reverse;  
}
```

# Flexbox Container: wrap

- Items will all try to fit onto one line. Items can wrap as needed with this property. Direction also plays a role here, determining the direction new lines are stacked in.



```
.container{  
  flex-wrap: nowrap | wrap | wrap-reverse;  
}
```

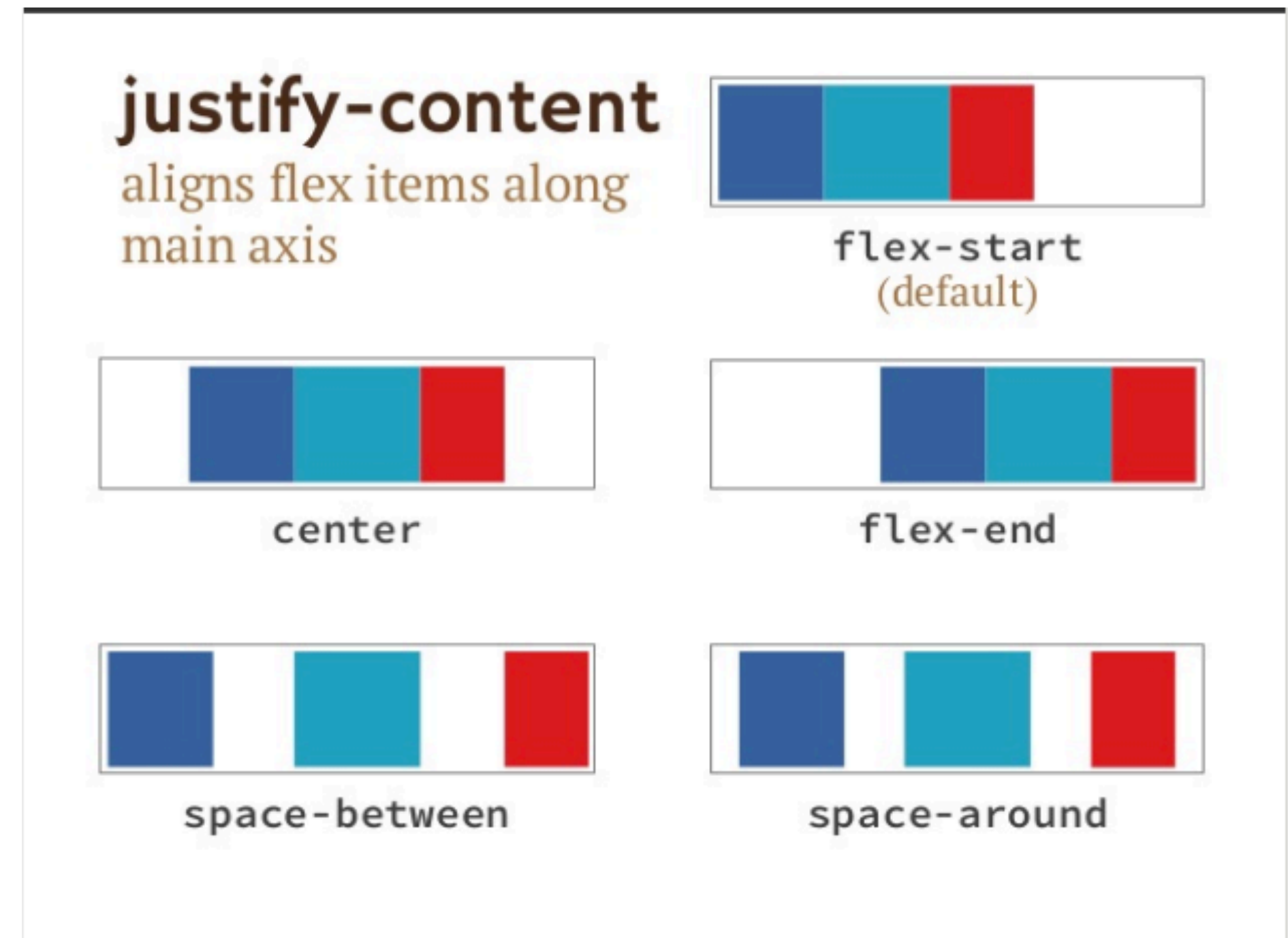
# SHORTHAND: FLEX-WRAP

```
ul {  
  flex-flow: row wrap; /*direction "row" and yes, please wrap the items.*/  
}
```

# Flexbox Container: justify-content

- Life's really good with the Flexbox model. If you still doubt that, the `justify-content` property may convince you.

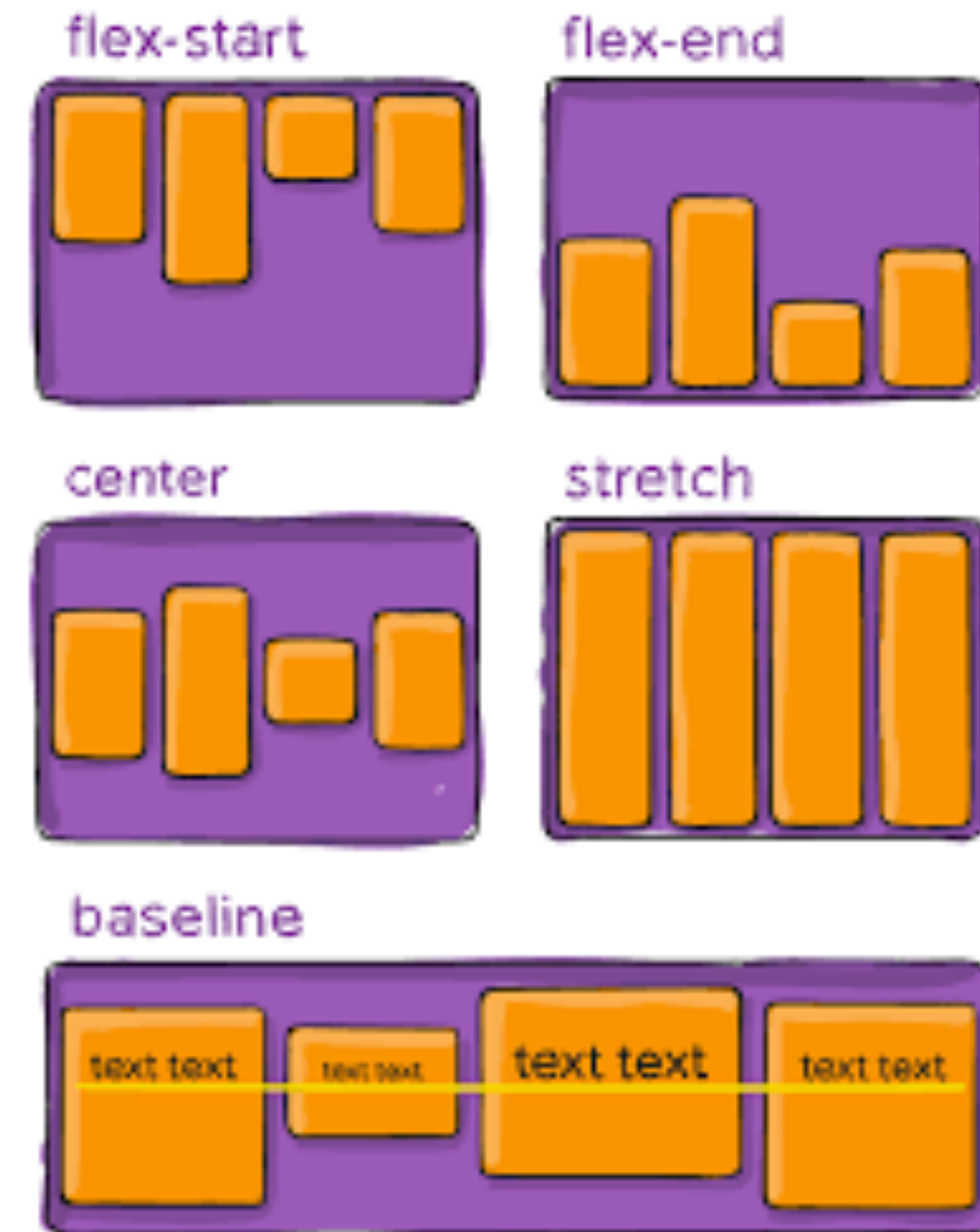
```
justify-content: flex-start || flex-end || center  
|| space-between || space-around
```



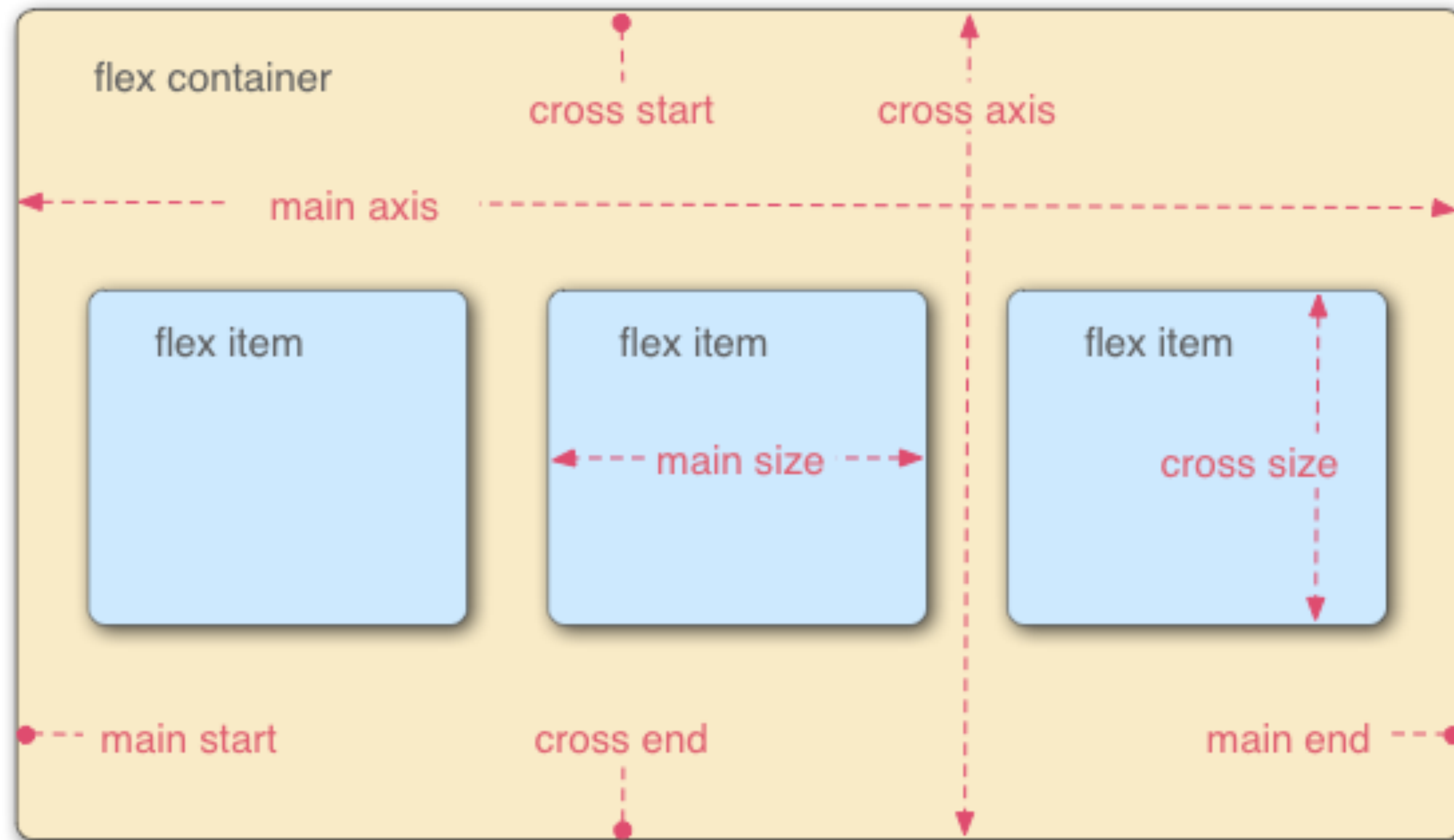
# Flexbox Container: align items

- Life's even better with the align items property.
- you can think of it as the justify-content version for the cross-axis

```
align-items: flex-start | flex-end | center |  
baseline | stretch
```



# Part Two: The Items





# Flexbox Items: order

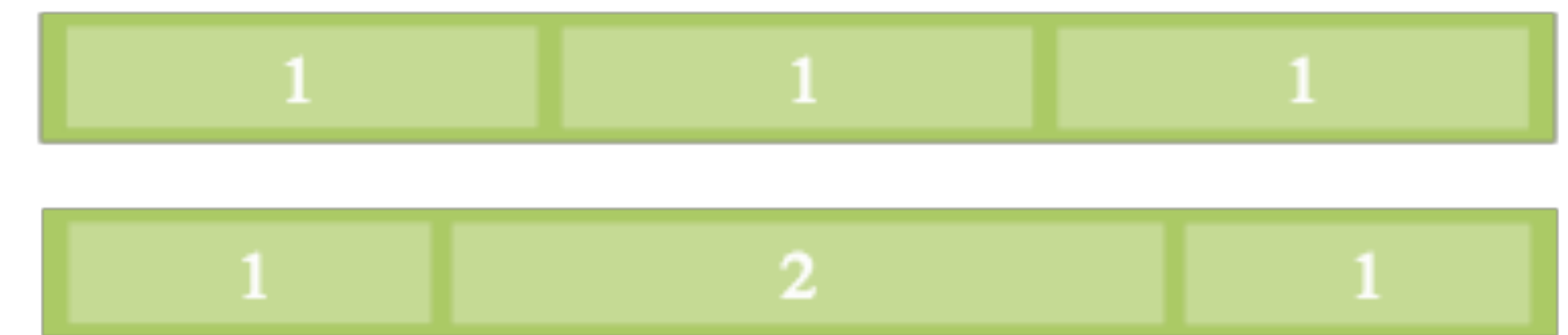
- The order property allows you to rearrange the order of your html elements. This is done without affecting the source code. Which means the position of the flex items in the HTML source code isn't changed.
- The default order value for all items starts at zero and can also take negative values

```
.blue{  
  order: 1;  
}
```



# Flexbox Items: flex-grow

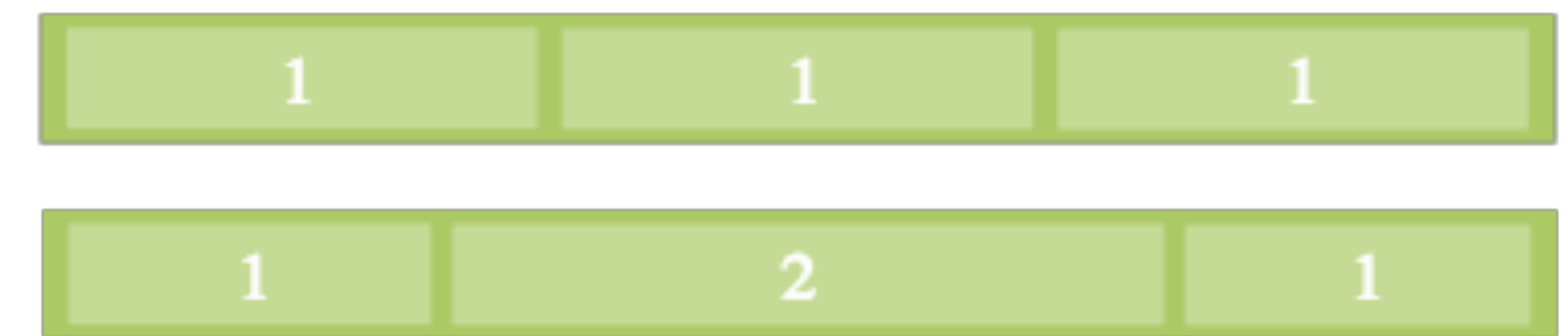
- Flex items can grow if necessary. This property accepts a unit-less value that serves as a proportion. It dictates what amount of the available space inside the flex container the item should take up.



```
.item {  
  flex-grow: <number>; /* default 0 */  
}
```

# Flexbox Items: flex-grow

- eg. if all items have flex-grow set to 1, every child will set to an equal size inside the container. If set to 2, that child would take up twice as much space as the others.



```
.item {  
  flex-grow: <number>; /* default 0 */  
}
```



# RESPONSIVE





# RESPONSIVE





# RESPONSIVE DESIGN

- Website is fully functional for all screen sizes, resolutions and orientations
- Born out of necessity (see previous slide)
- Developers and designers should cater to the user's environment, not the other way around





# Responsive Developer Tools

The screenshot shows a web browser with the following tabs: DOM Lecture Outline - drav, JS Bin - Collaborative Java, Google Analytics, and Issues · FullstackAcademy. The address bar shows the URL: <https://github.com/FullstackAcademy/newlearn/issues?utf8=✓&q=is%3Aissue+is%3Aopen+comments>. The page title is "FullstackAcademy / newlearn" and it is marked as "PRIVATE". The repository has 24 Unwatch, 11 Star, and 5 Fork. The "Issues" tab is selected, showing a search bar with the query "is:issue is:open comments" and a "New issue" button. The developer tools are open, showing the "Elements" panel on the left and the "Styles" panel on the right. The "Elements" panel shows the HTML structure of the page, with the "body" element selected. The "Styles" panel shows the default styles for the "body" element, including "display: block" and "margin: 8px".

```
<!DOCTYPE html>
<html lang="en" class=" is-copy-enabled">
  <head prefix="og: http://ogp.me/ns# fb: http://ogp.me/ns/fb# object: http://ogp.me/ns/object# article: http://ogp.me/ns/article# profile: http://ogp.me/ns/profile#">...</head>
  <body class="logged_in env-production macintosh vis-private">
    <a href="#start-of-content" tabindex="1" class="accessibility-aid js-skip-to-content">Skip to content</a>
    <div class="header header-logged-in true" role="banner">...</div>
    <div id="start-of-content" class="accessibility-aid"></div>
    <div id="js-flash-container">
      </div>
    <div role="main" class="main-content">...</div>
    <div class="container">...</div>
    <div id="ajax-error-message" class="flash flash-error">...</div>
    <script crossorigin="anonymous" integrity="sha256-Ln/D0mSiC0E4PehbgVN5vsz/VsH5d3FFFdTKx4I07z4=" src="https://assets-cdn.github.com/assets/frameworks-2e7fc3d264a208e1383de85b815379beccff56c1f977714515d4cac7820eef3e.js"></script>
    <script async="async" crossorigin="anonymous" integrity="sha256-0ZauYVQU9+hAsJTbTqtuSyWQK5rrZ0UHUHJlozDGwA=" src="https://assets-cdn.github.com/assets/frameworks-d196ae615414f7e840b094db4eab6e4b25902b9aeb674507521265a330c6c1d0.js"></script>
    <div class="js-stale-session-flash stale-session-flash flash flash-warn flash-banner hidden">...</div>
    <div class="facebox" id="facebox" style="display:none;">...</div>
    <script id="hiddenSubmitdiv" style="display: none;"></script>
    <script>...</script>
  </body>
</html>
```

The "Styles" panel shows the default styles for the "body" element, including "display: block" and "margin: 8px".

```
body {
  display: block;
  margin: 8px;
}
```