

Flexbox



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What is Flexbox?

A Set of CSS
Properties

Creating
Flexible
Layouts

Distributing
Extra Space

Aligning
Content

Not Flexible Enough!

Block

Inline

Table

Positioning

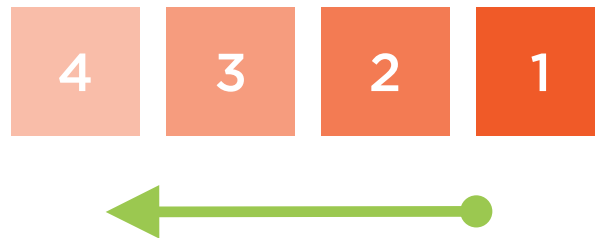
Flexbox!



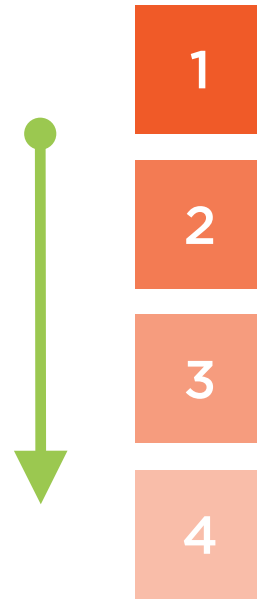
Flexbox!



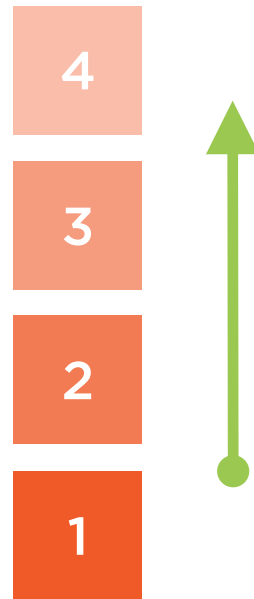
Flexbox!



Flexbox!



Flexbox!



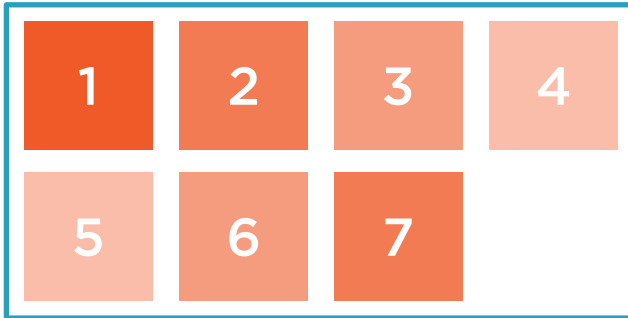
Flexbox!



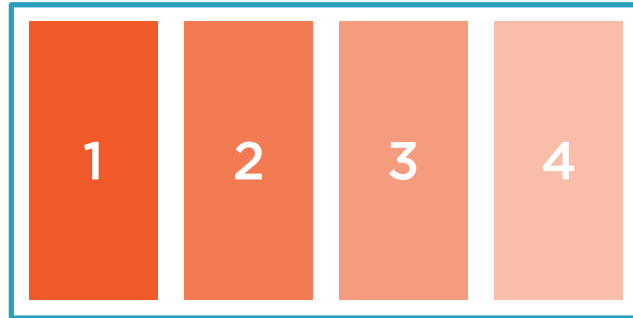
Flexbox!



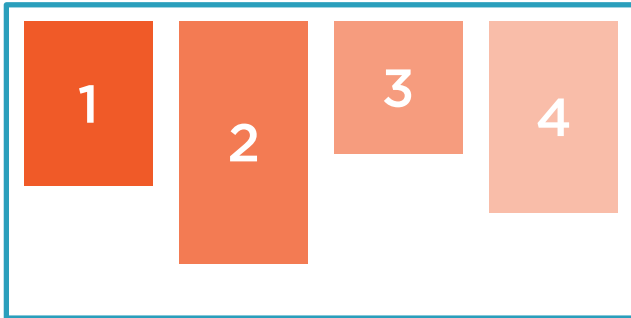
Flexbox!



Flexbox!



Flexbox!



Flexbox The Basics

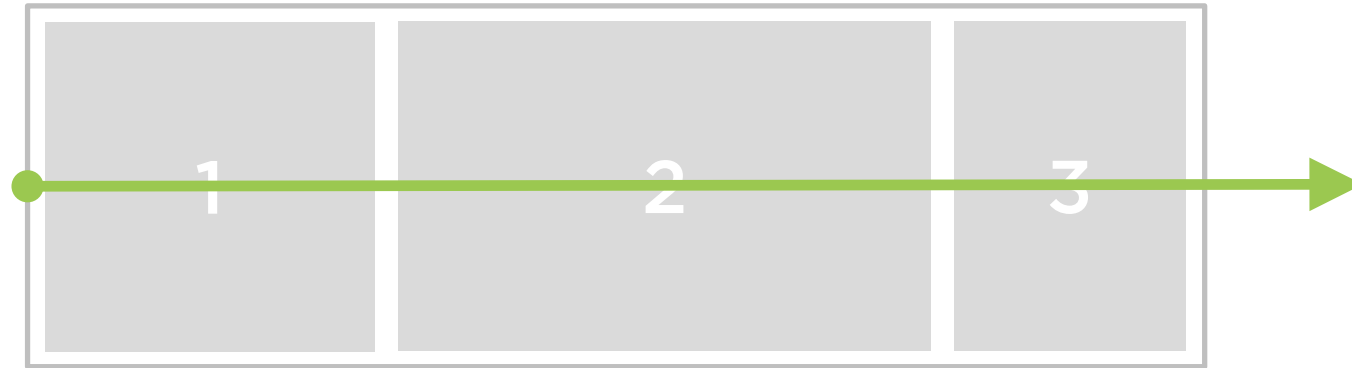
Flex Container



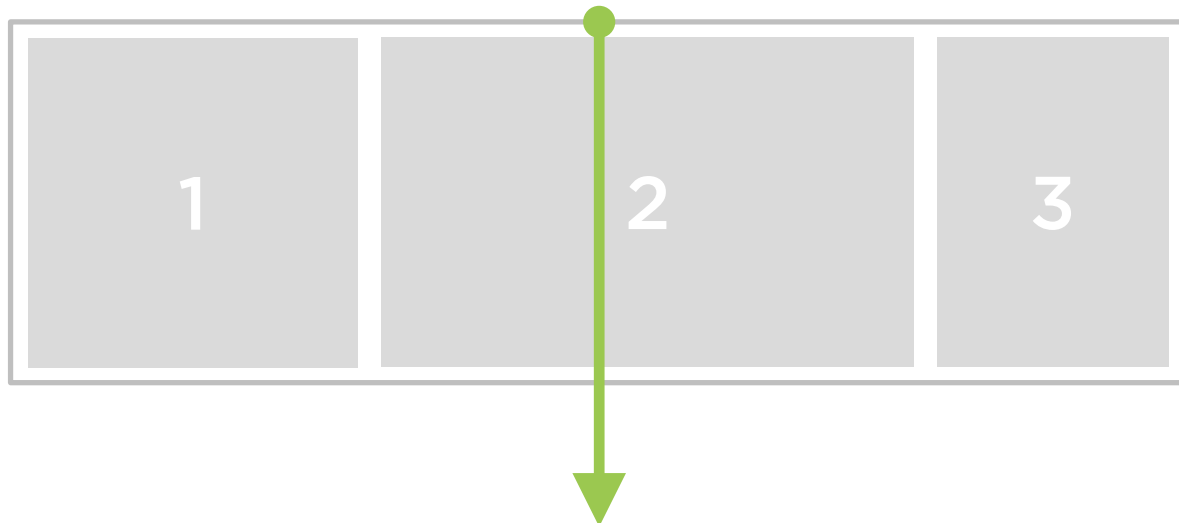
Flex Items



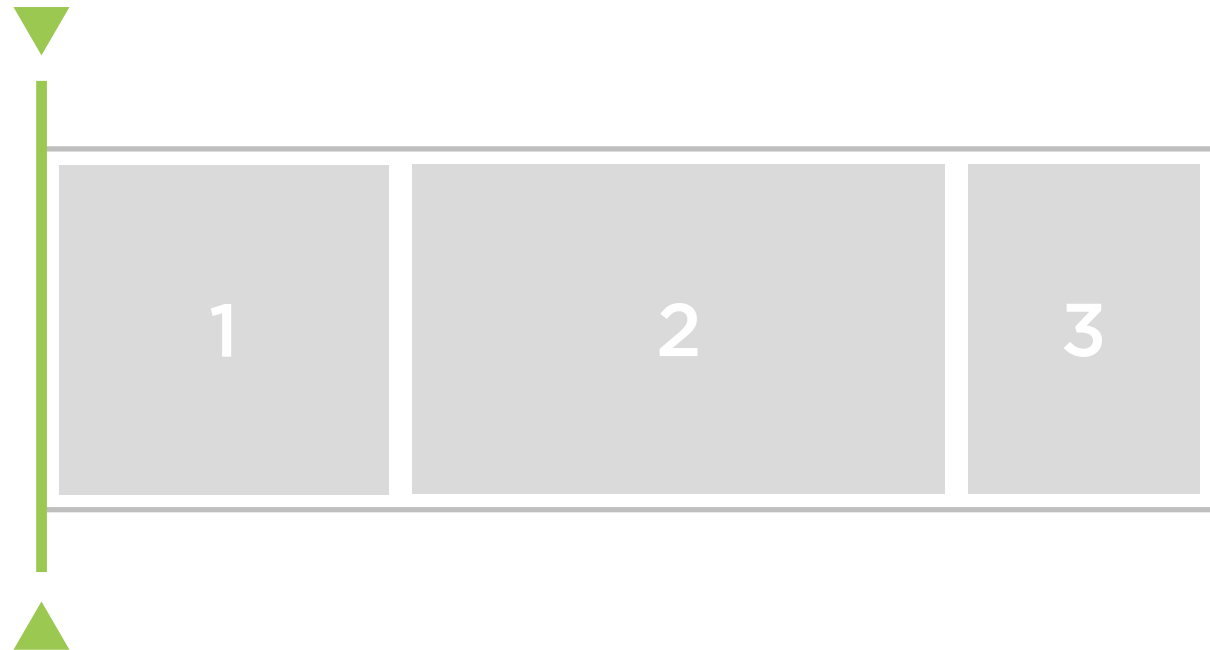
Main Axis



Cross Axis



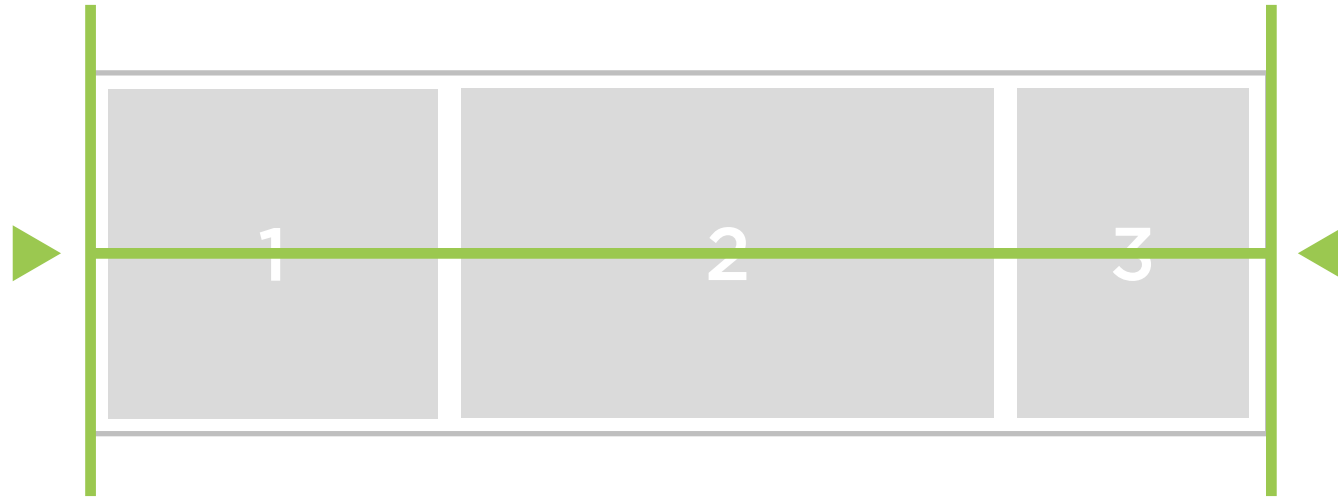
Main Start



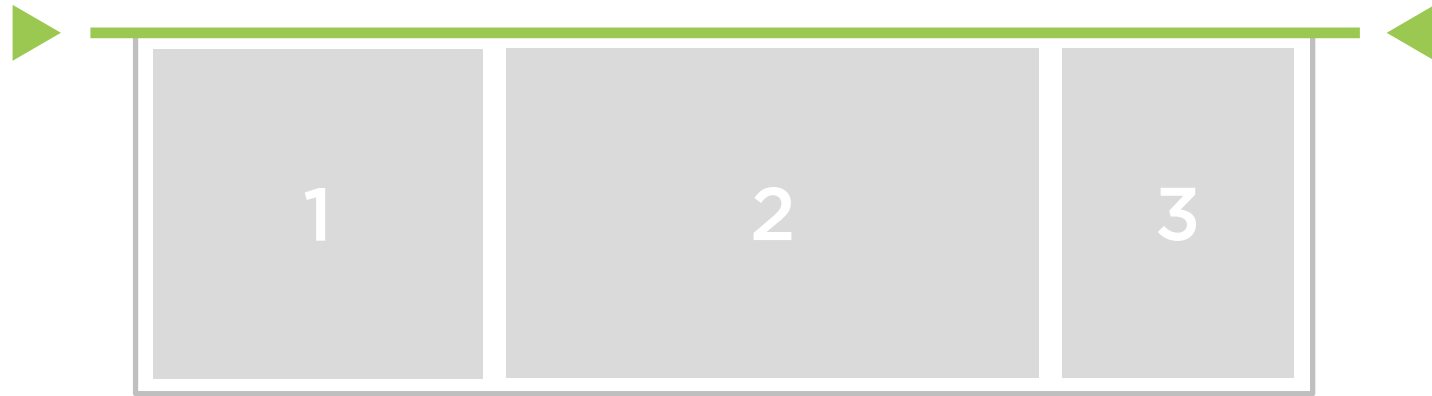
Main End



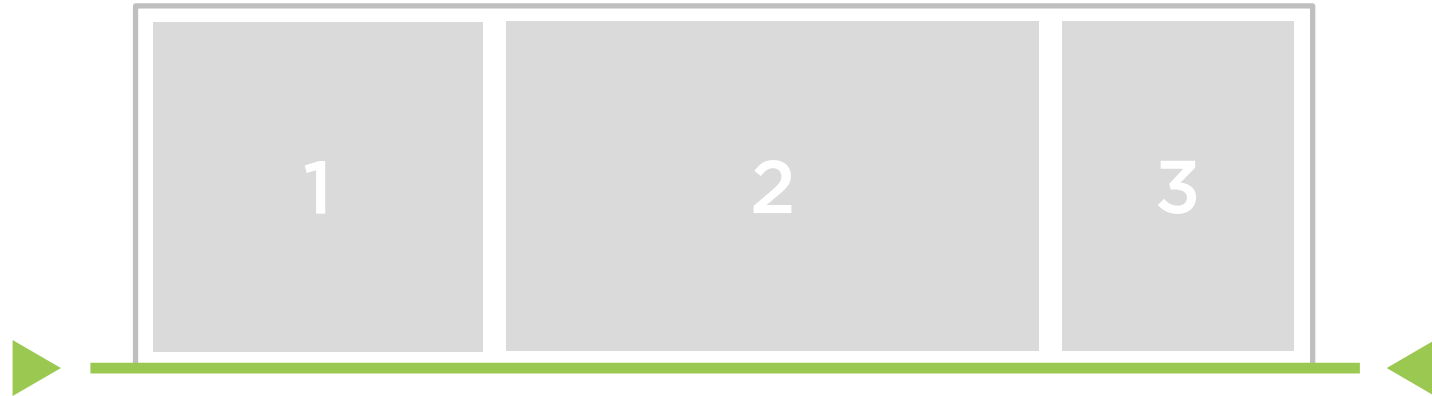
Main Size



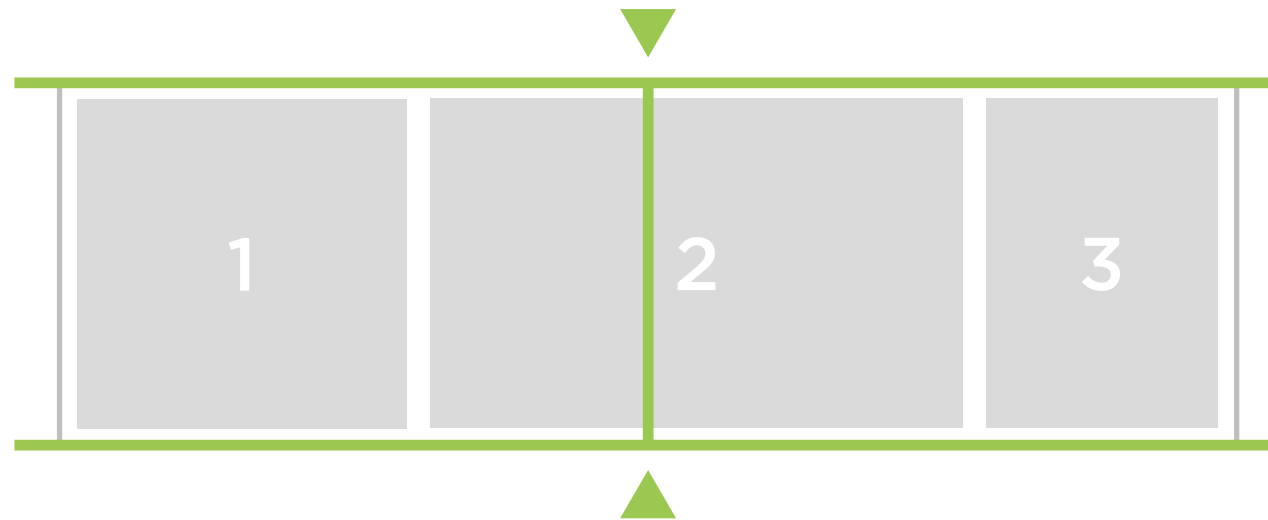
Cross Start



Cross End



Cross Size



The Flex Container

Flex Container

display

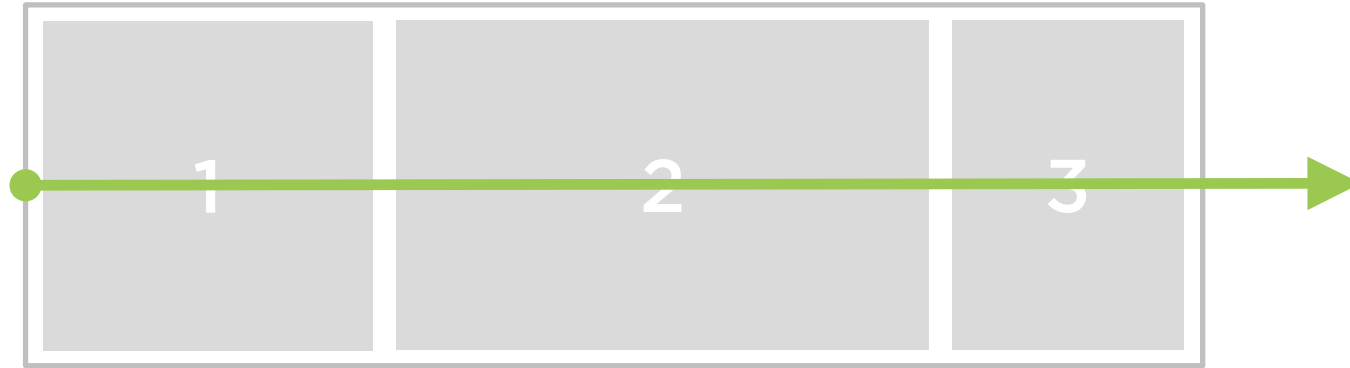
Flex Container

```
display: flex;
```

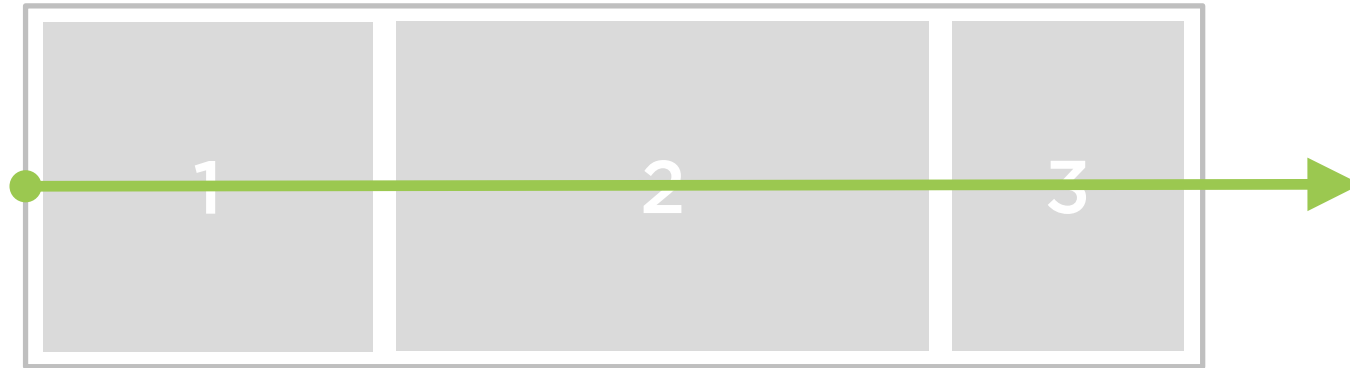
DEMO VIDEO GOES HERE

Flex Flow Direction

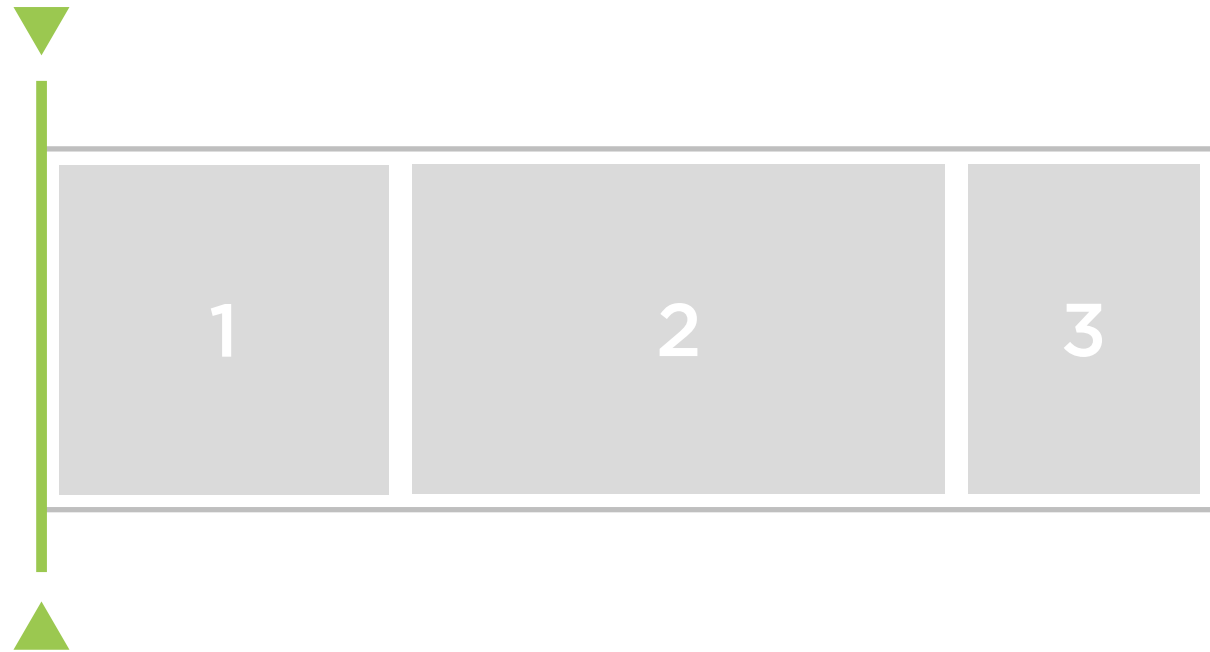
Flex Items Flow Left to Right



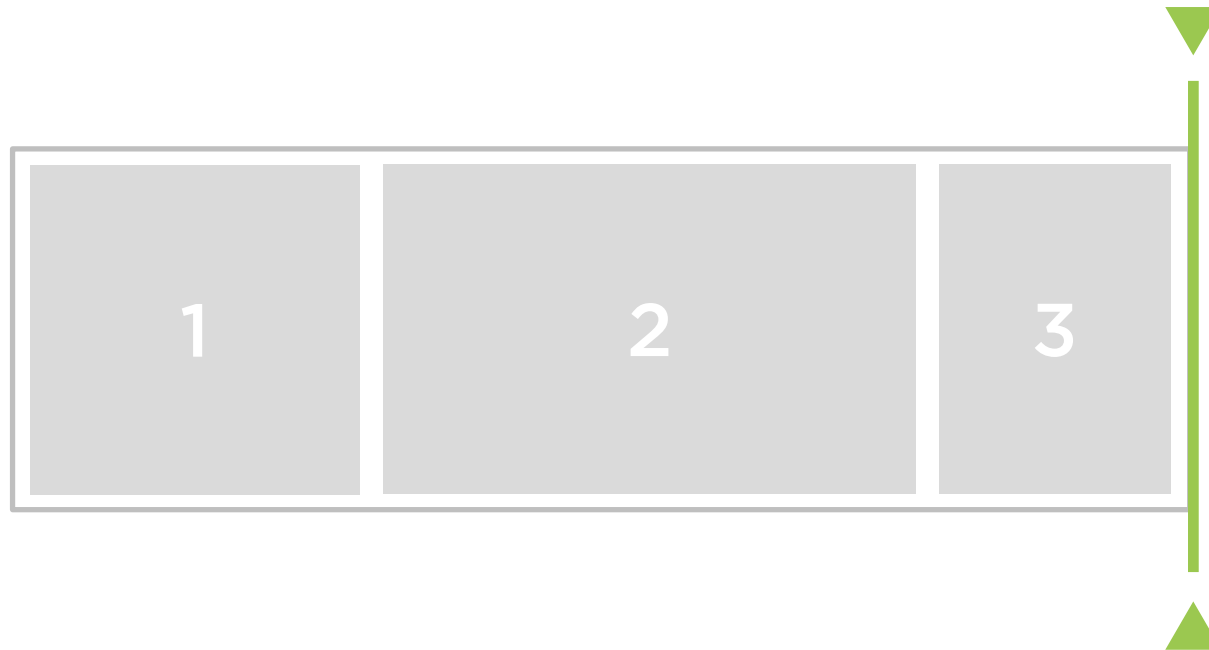
This is the Main Axis



Flex Start



Flex End



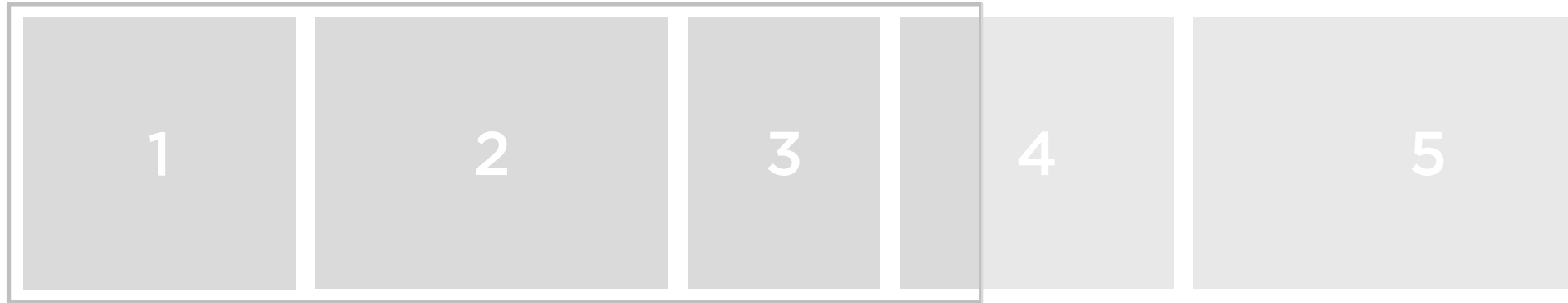
DEMO VIDEO GOES HERE

Flex Line Wrapping

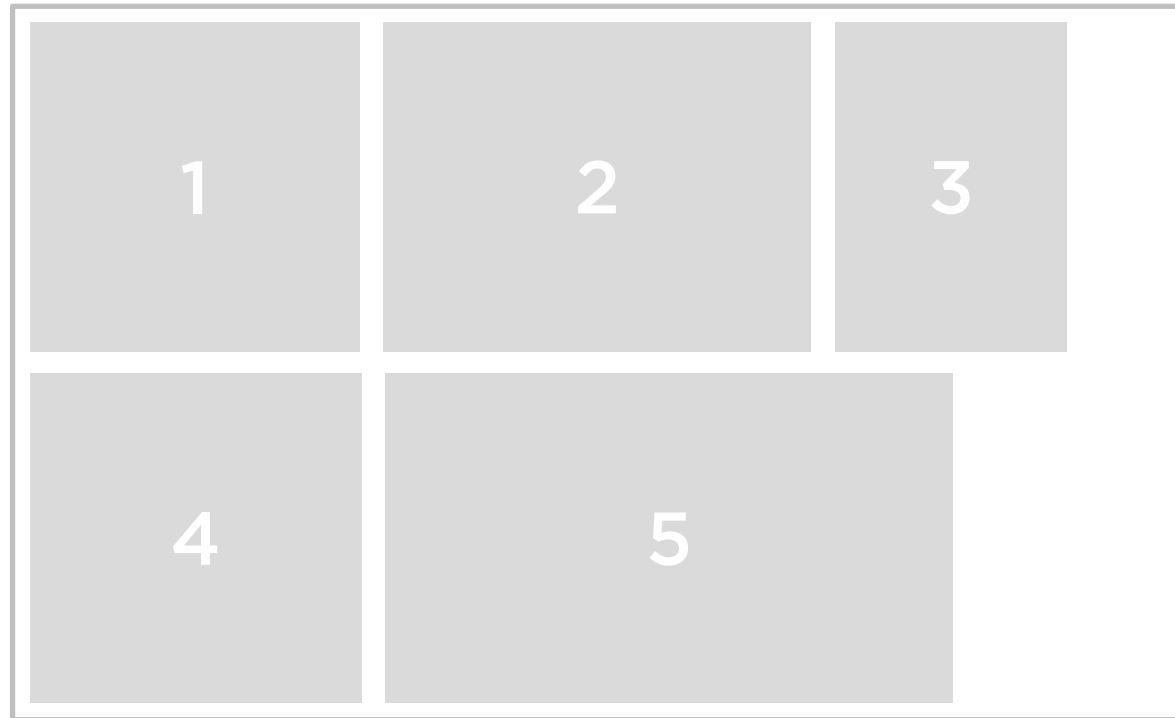
text-wrap

Flex Line Wrapping is Familiar...

Single Line Formatting



Multi-Line Formatting



```
text-wrap: normal;
```

I'm text and I flow left to right and will wrap if I don't have enough space, but I won't if I'm set to nowrap

```
text-wrap: nowrap;
```

I'm text and I flow left to right and will w

DEMO VIDEO GOES HERE

Shorthand

DEMO VIDEO GOES HERE

Display Order

A person wearing a realistic brown horse mask is seen from the back, looking through a chain-link fence. The person is wearing a blue and white plaid shirt and has their hands pressed against the fence. In the background, another horse is visible in a grassy field under a clear sky. A purple text box in the upper right corner contains the text "Say What?!".

Say What?!

Source Order

```
<div class="flex-container">  
  <div class="flex-item">  
    1  
  </div>  
  <div class="flex-item">  
    2  
  </div>  
  <div class="flex-item">  
    3  
  </div>  
</div>
```

Source Order

```
<div class="flex-container">  
  <div class="flex-item">  
    1  
  </div>  
  <div class="flex-item">  
    2  
  </div>  
  <div class="flex-item">  
    3  
  </div>  
</div>
```

Display Order



Default Ordinal Group

O

ZERO

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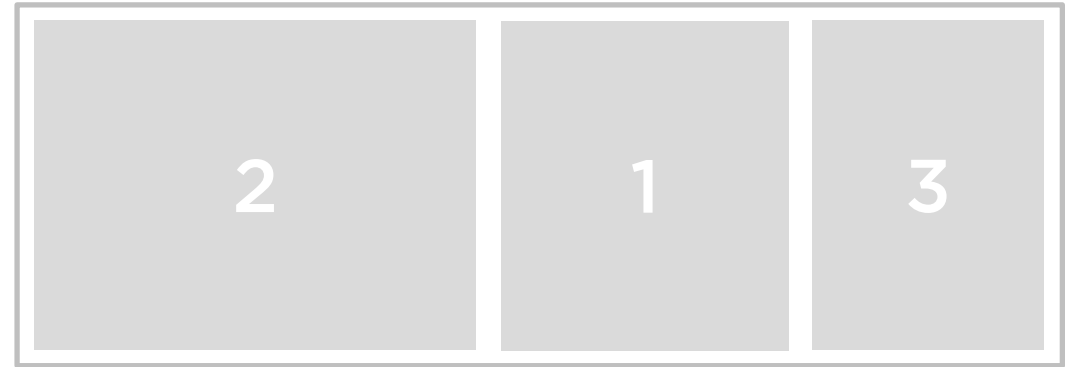
Accessibility



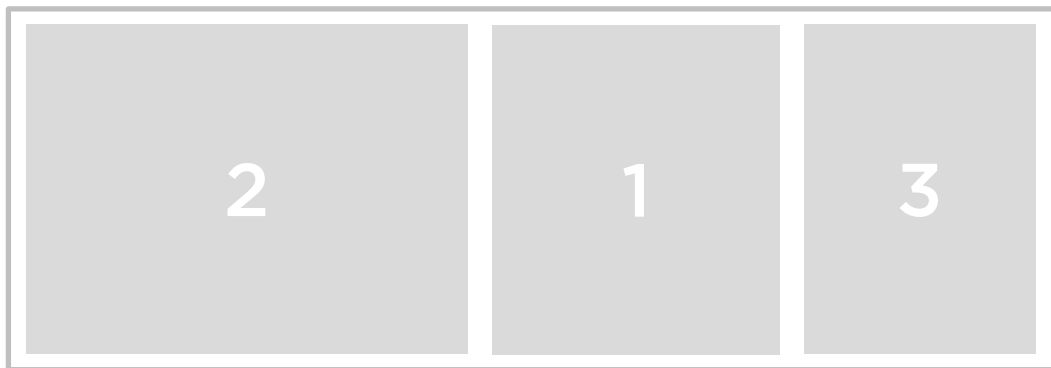
Source Order

```
<div class="flex-container">  
  <div class="flex-item">  
    1  
  </div>  
  <div class="flex-item">  
    2  
  </div>  
  <div class="flex-item">  
    3  
  </div>  
</div>
```

Display Order



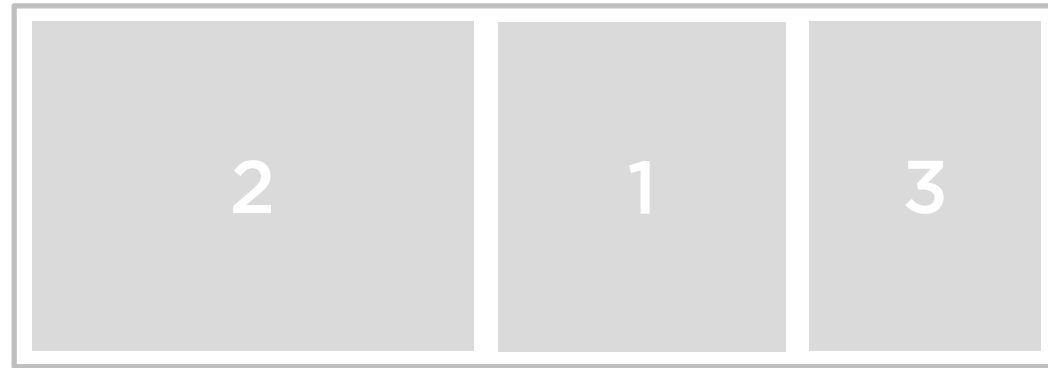
Display Order Changes



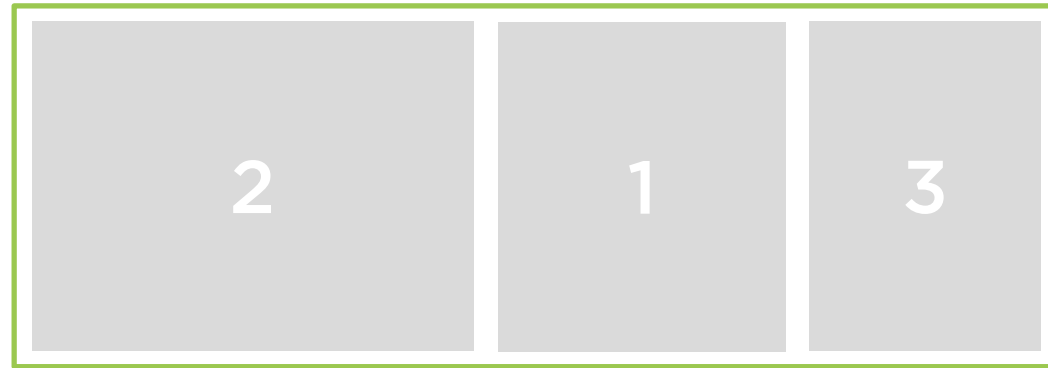
Source Order Does Not

```
<div class="flex-container">  
  <div class="flex-item">  
    1  
  </div>  
  <div class="flex-item">  
    2  
  </div>  
  <div class="flex-item">  
    3  
  </div>  
</div>
```

Tab Order

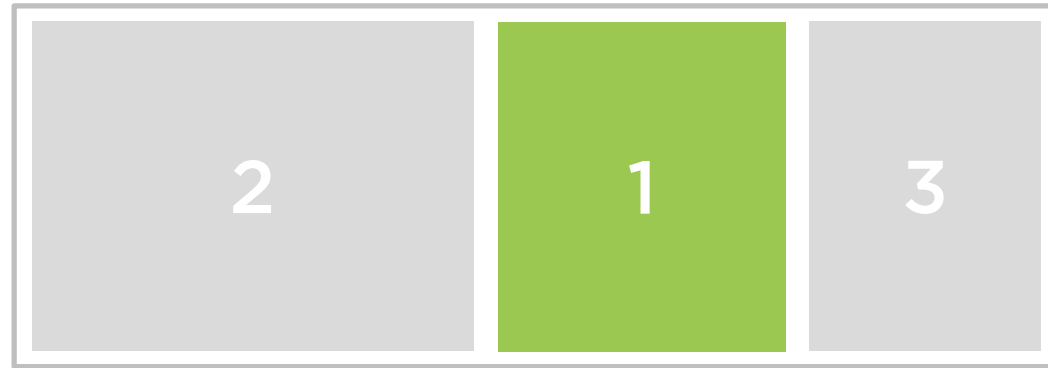


Tab Order



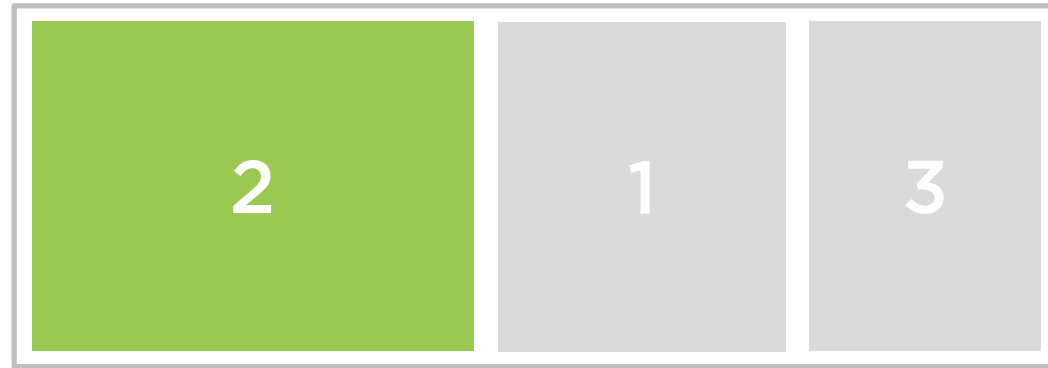
Tab 01

Tab Order



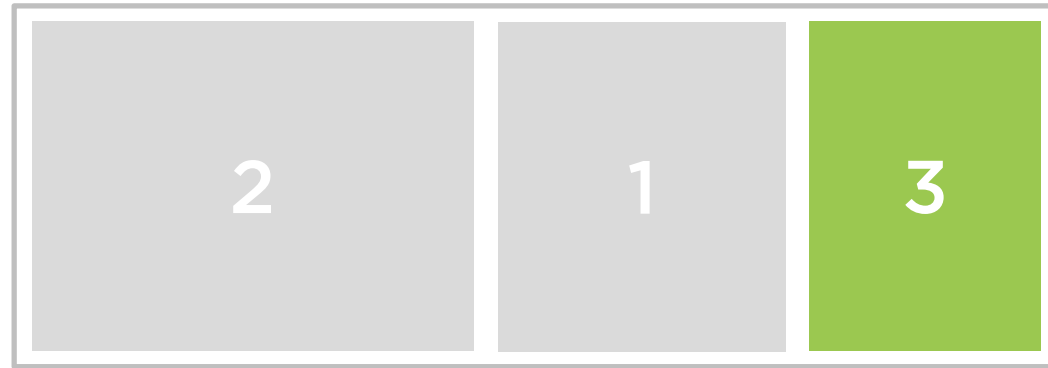
Tab 02

Tab Order



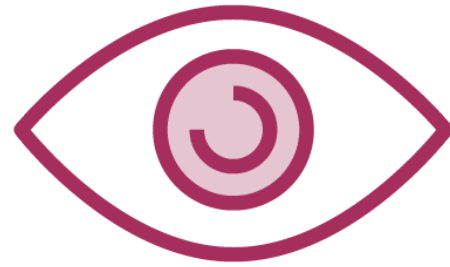
Tab 03

Tab Order

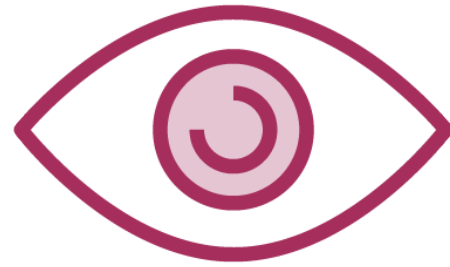


Tab 04

For Visual Purposes Only



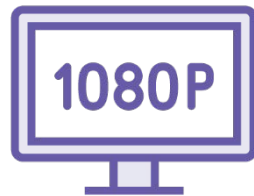
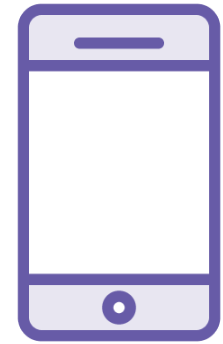
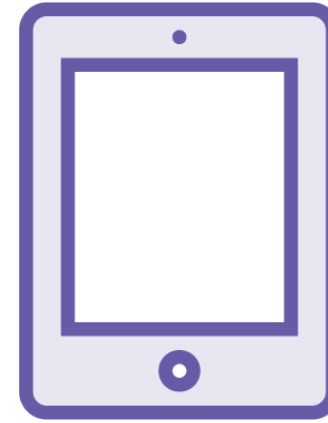
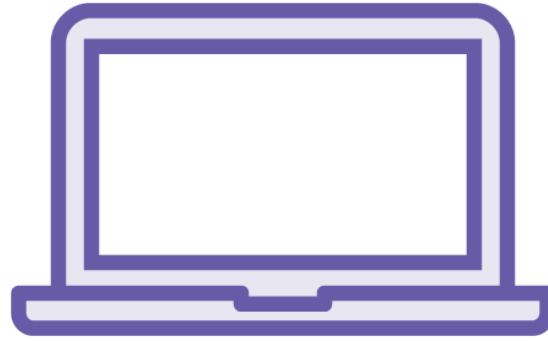
For Visual Purposes Only



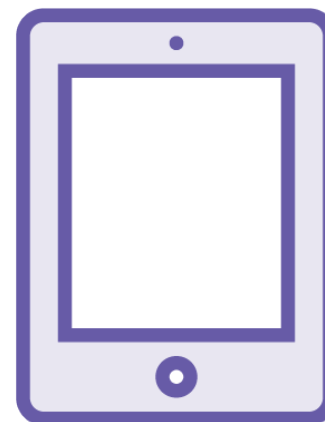
Not For Logical Reordering

Flexibility

So Many Devices, Dimensions, & Densities



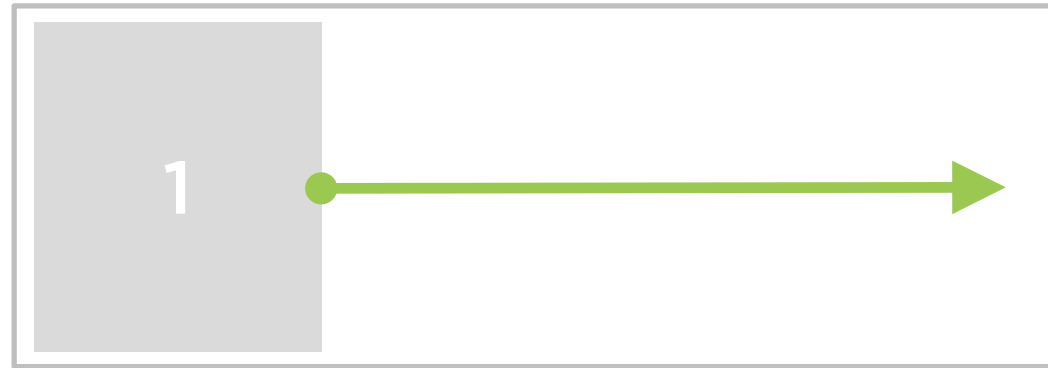
We Need Help!



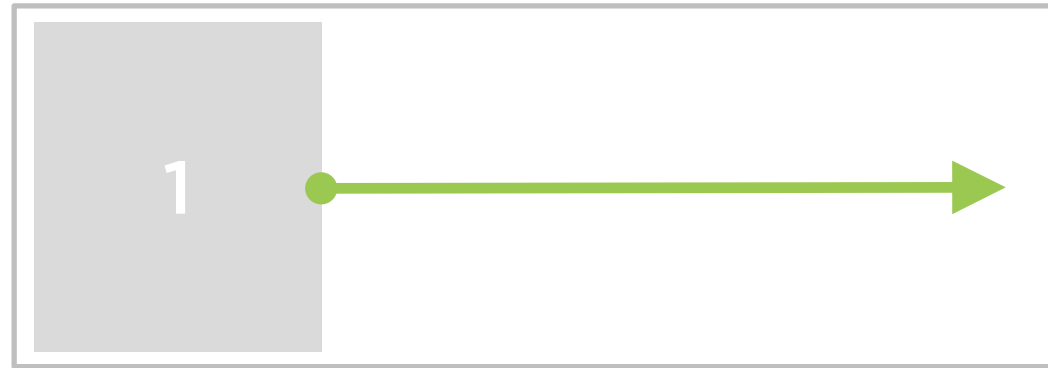
Yay Flexbox!



Flex Grow Factor



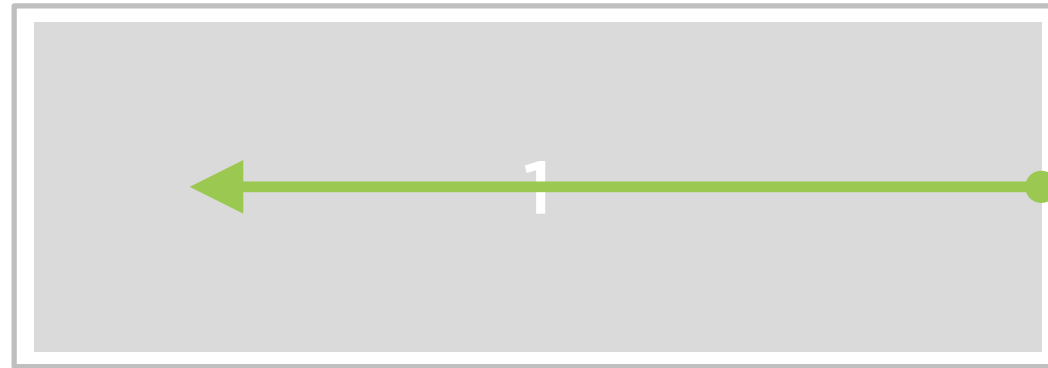
Flex Grow Factor



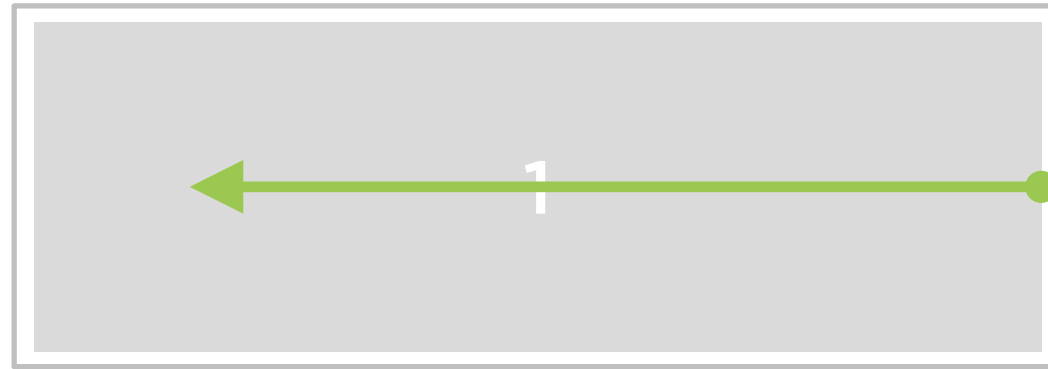
flex-grow

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Flex Shrink Factor



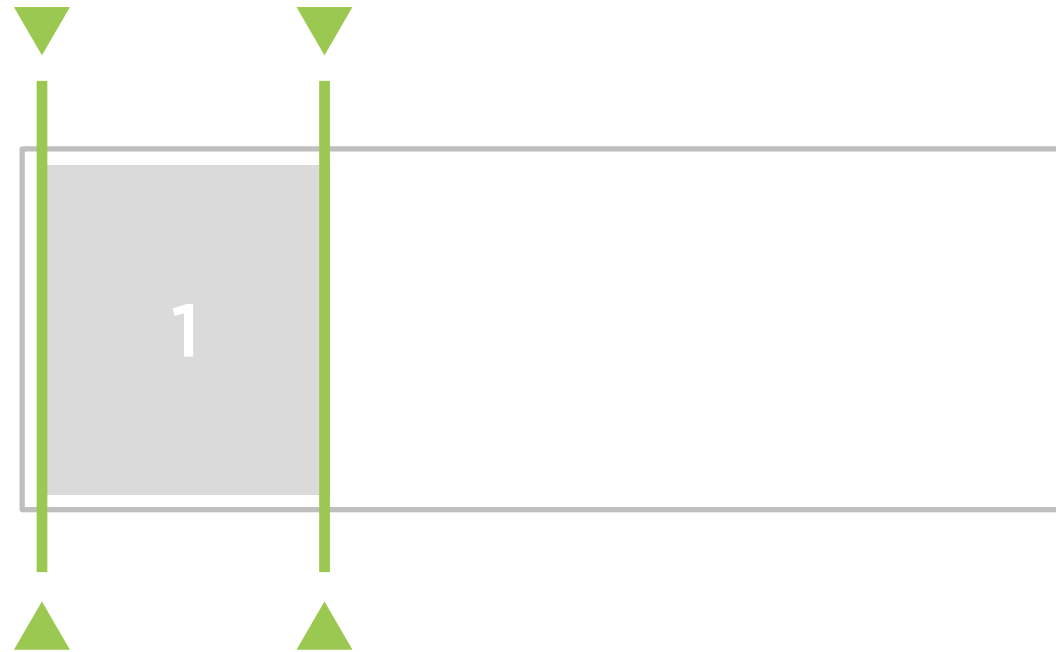
Flex Shrink Factor



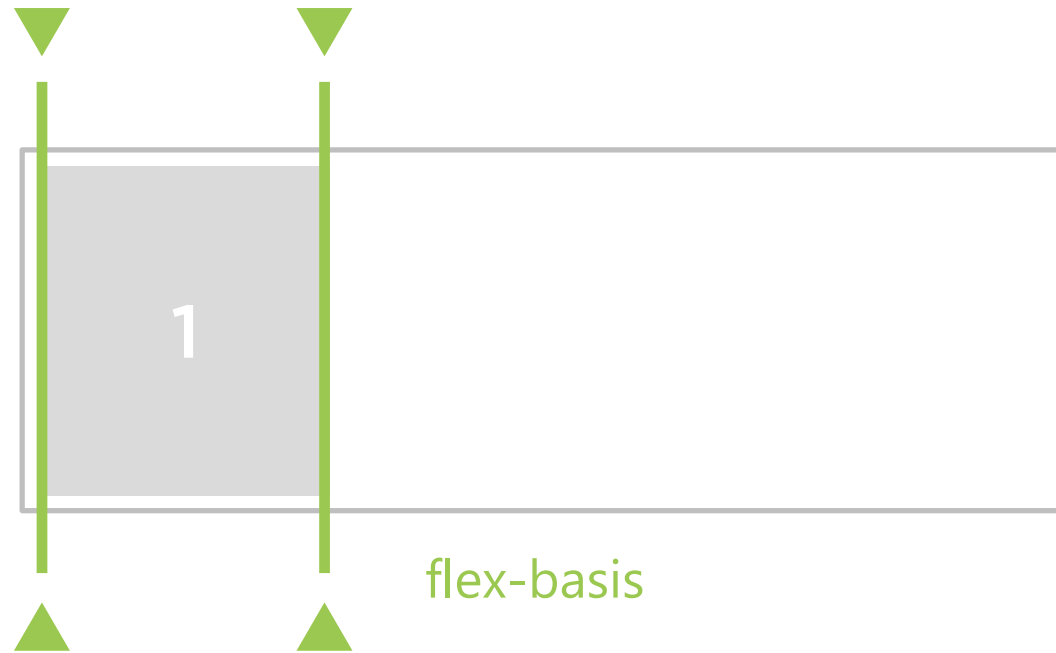
flex-shrink

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Initial Size



Initial Size



DEMO VIDEO GOES HERE

Shorthand

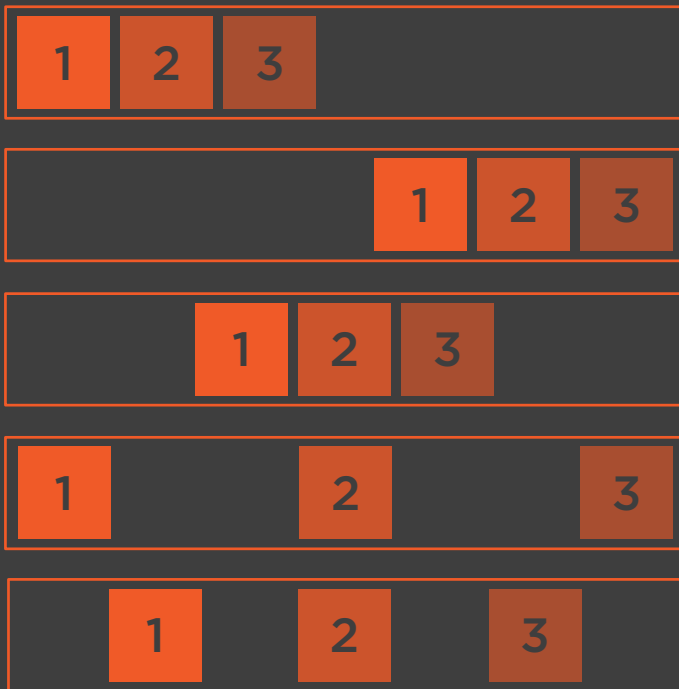
Shorthand

`flex: flex-grow flex-shrink flex-basis;`

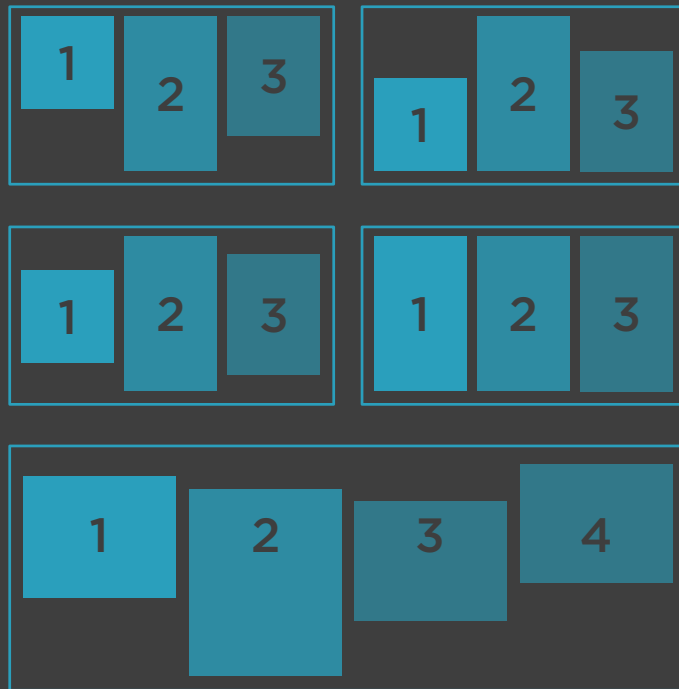
DEMO VIDEO GOES HERE

Alignment

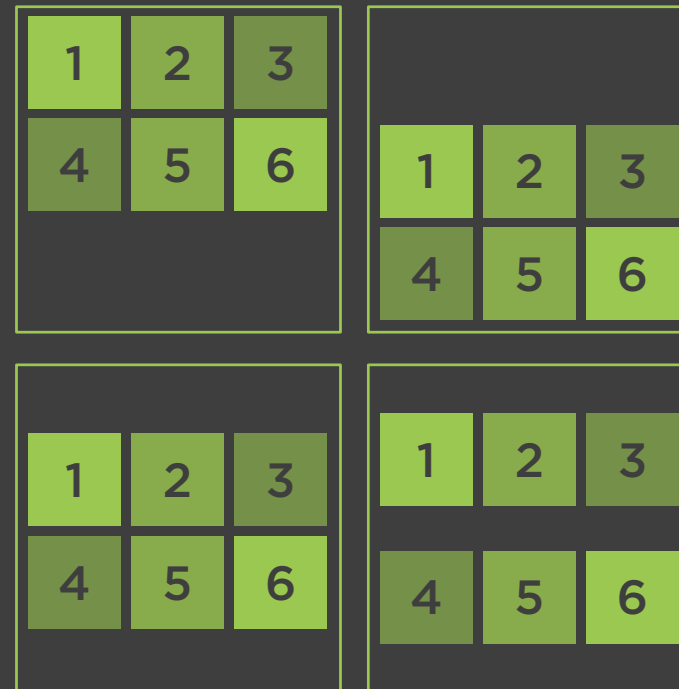
On the Container



justify-content



align-items



align-content

On the Item



align-self

DEMO VIDEO GOES HERE

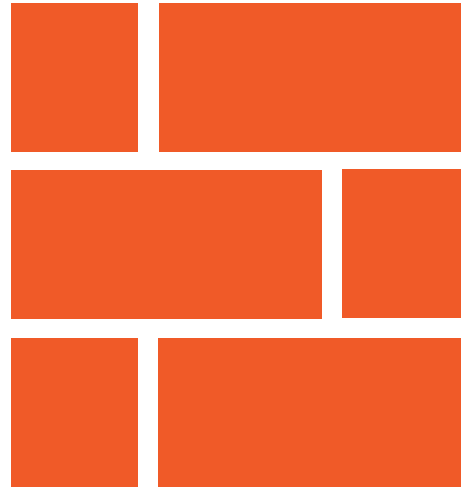
DEMO VIDEO GOES HERE

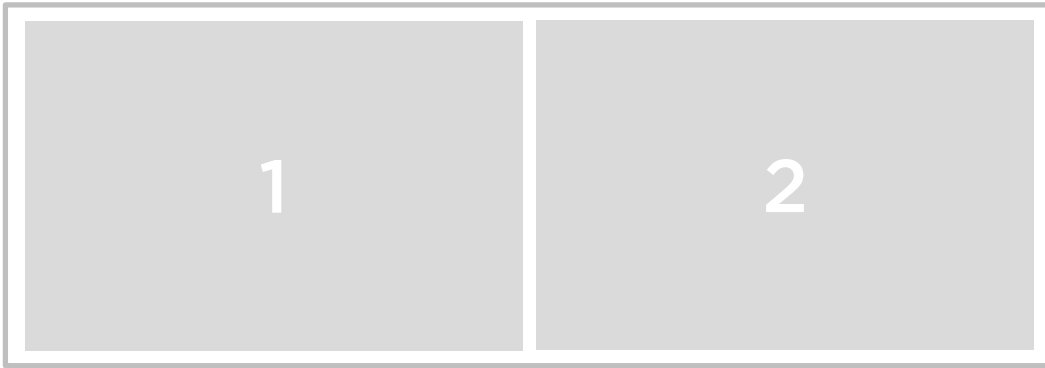
DEMO VIDEO GOES HERE

DEMO VIDEO GOES HERE

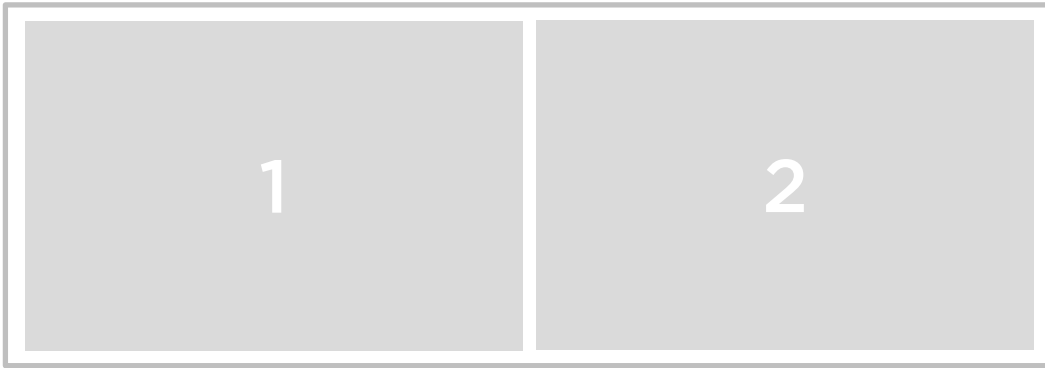
Flexbox in the Real World

Simple, More Elegant Grid Systems

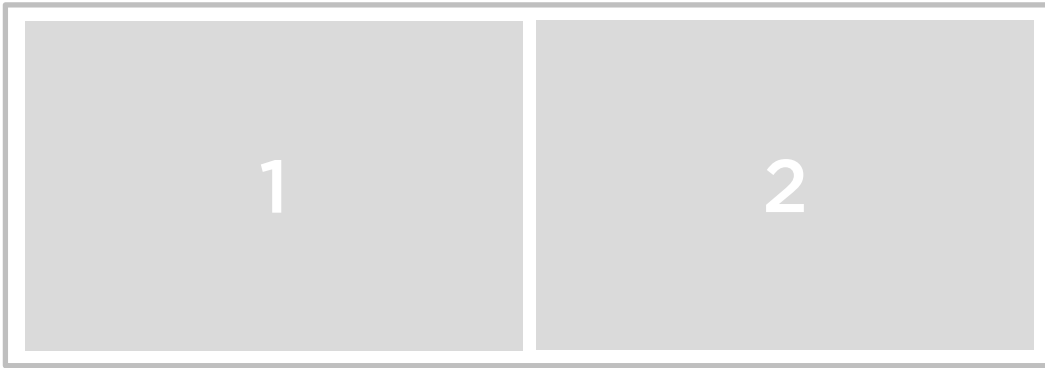




Float



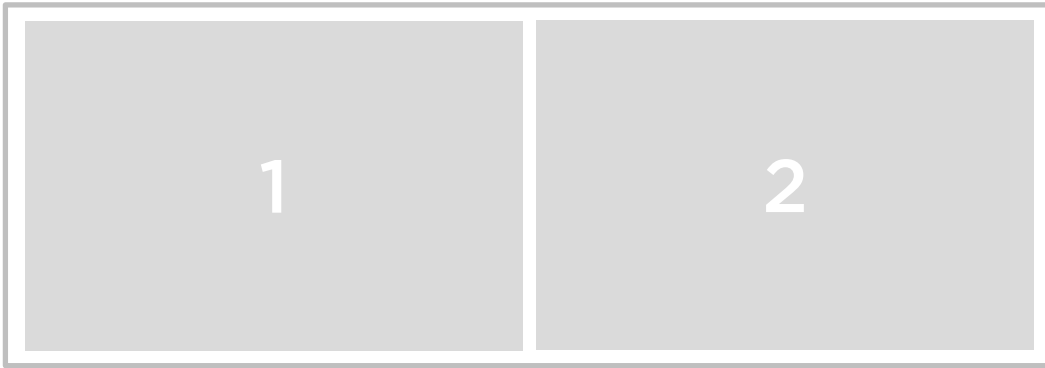
Float
Width



Float

Width

Clear



~~Float
Width
Clear~~

DEMO VIDEO GOES HERE

DEMO VIDEO GOES HERE

Super Easy!



I want to
be aligned
to the
bottom

Me too!

It seems
impossible

DEMO VIDEO GOES HERE

Flexbox Was
Made For Layout!

Float Was Not!

Header

Navigation

Main Content

Sidebar

Footer

DEMO VIDEO GOES HERE

Got an Unknown
Number of Items?

DEMO VIDEO GOES HERE

Summary

Flexbox



Flexible layouts

Distribute extra space

Align content

Parent > child relationship

Main Axis vs. Cross Axis

Flow content horizontally or vertically

Align items on the container or individually

Stretch, shrink, & grow

Change display order

Real world examples