

Flexbox Cheat Sheet Bootstrap 4

Flexbox Introduction

Below is flexbox example markup. You could apply flexbox CSS properties manually, but things can get cumbersome when you are trying to apply responsive functionality. The benefit of using Bootstrap 4 flexbox utility classes is that you can set flexbox properties and target specific breakpoints.

```
<div class="flex-container">
  <div class="flex-item-a">flex item with a class .flex-item-a</div>
  <div>flex item</div>
  <div>flex item</div>
</div>
```

Flex Container

Flex layout gives the container the ability to alter its items' width/height (and order) to best fill the available space of the container.

The container has a main axis and cross axis which depends on the flex direction. Each axis has a start and end. For example, if you set the flex direction to column. The main axis is vertical and the cross axis is horizontal. If you set the flex direction to row, the main axis is horizontal and the cross axis is vertical.

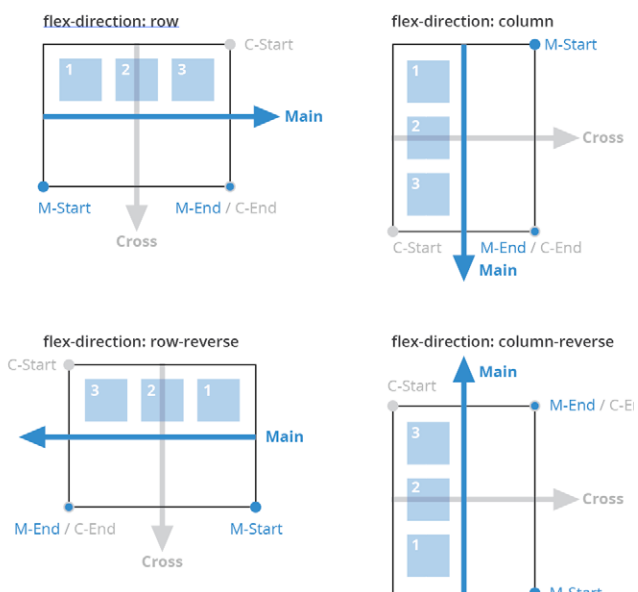
The following pages compares vanilla CSS flexbox to Bootstrap 4 flexbox utility classes to help you decide which approach is best for your situation.

CSS	Bootstrap 4
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Step 1: Do you want the container to behave like a block or inline element?

CSS	Bootstrap 4
<p>display:</p> <p>Docs: https://developer.mozilla.org/en-US/docs/Web/CSS/display#Values</p> <p>flex</p> <p>makes the container act display block</p> <p>inline-flex</p> <p>makes the container act display inline</p>	<p>Use one or a combination of classes below to specify what breakpoints you would like the properties to be applied.</p> <p>Docs: http://getbootstrap.com/docs/4.0/utilities/flex/#enable-flex-behaviors</p> <p>.d-flex</p> <p>.d-inline-flex</p> <p>.d-(sm, md, lg, xl)-(flex, inline-flex)</p>

Step 2: Do you want your main axis to be vertical or horizontal?

CSS	Bootstrap 4
<p>flex-direction:</p> <p>Docs: https://developer.mozilla.org/en-US/docs/Web/CSS/flex-direction</p> <p>row (default) left to right</p> <p>row-reverse right to left</p> <p>column top to bottom</p> <p>column-reverse reverse = bottom to top</p>  <p>The diagrams show four flex container layouts:</p> <ul style="list-style-type: none"> flex-direction: row: Items 1, 2, 3 are arranged horizontally from left to right. The main axis is horizontal (labeled 'Main' with a right-pointing arrow), and the cross axis is vertical (labeled 'Cross' with a downward-pointing arrow). flex-direction: column: Items 1, 2, 3 are arranged vertically from top to bottom. The main axis is vertical (labeled 'Main' with a downward-pointing arrow), and the cross axis is horizontal (labeled 'Cross' with a right-pointing arrow). flex-direction: row-reverse: Items 3, 2, 1 are arranged horizontally from right to left. The main axis is horizontal (labeled 'Main' with a left-pointing arrow), and the cross axis is vertical (labeled 'Cross' with a downward-pointing arrow). flex-direction: column-reverse: Items 3, 2, 1 are arranged vertically from bottom to top. The main axis is vertical (labeled 'Main' with an upward-pointing arrow), and the cross axis is horizontal (labeled 'Cross' with a right-pointing arrow). 	<p>Use one or a combination of classes below to specify what breakpoints you would like the properties to be applied.</p> <p>Docs: http://getbootstrap.com/docs/4.0/utilities/flex/#direction</p> <p>.flex-row</p> <p>.flex-row-reverse</p> <p>.flex-column</p> <p>.flex-column-reverse</p> <p>.flex-(sm, md, lg, xl)-(row, row-reverse, column, column-reverse)</p>

Step 3: How do you want the extra space to be distributed along the main axis?

CSS	Bootstrap 4
<p>justify-content:</p> <p>Docs: https://developer.mozilla.org/en-US/docs/Web/CSS/justify-content</p> <p>flex-start (default) items anchored to the start</p> <p>flex-end items anchored to the start</p> <p>center items centered</p> <p>space-between items evenly distributed in the line. First item in on the start and last item is at the end</p> <p>space-around start and end items are not to the edge but have 1 unit of space on each side</p> <p>space-evenly similar to space-around, except all space is the same</p>	<p>Use one or a combination of classes below to specify what breakpoints you would like the properties to be applied.</p> <p>Docs: http://getbootstrap.com/docs/4.0/utilities/flex/#justify-content</p> <p>.justify-content-start .justify-content-end .justify-content-center .justify-content-between .justify-content-around .justify-content-(sm, md, lg, xl)- (start, end, center, between, around)</p>

Step 4: How do you want the extra space of LINES of items to be distributed along the cross axis?

CSS	Bootstrap 4
<p>align-content:</p> <p>Docs: https://developer.mozilla.org/en-US/docs/Web/CSS/align-content</p> <p>flex-start items anchored to the start</p> <p>flex-end items anchored to the end</p> <p>center items centered</p> <p>space-between first line at the start of the container and the last one is at the end</p> <p>space-around lines are evenly distributed with equal space around each line</p> <p>stretch (default) lines stretch to take up the space that is left</p>	<p>Use one or a combination of classes below to specify what breakpoints you would like the properties to be applied.</p> <p>Docs: http://getbootstrap.com/docs/4.0/utilities/flex/#align-content</p> <p>.align-content-start .align-content-end .align-content-center .align-content-around .align-content-stretch .align-content-(sm, md, lg, xl)- (start, end, center, around, stretch)</p>

Step 5: How do you want the extra space between items to be distributed along the cross axis?

CSS	Bootstrap 4
<p>align-items:</p> <p>Docs: https://developer.mozilla.org/en-US/docs/Web/CSS/align-items</p> <p>flex-start cross axis align items to start</p> <p>flex-end cross axis align items to end</p> <p>center cross axis align items center</p> <p>baseline align baselines</p> <p>stretch (default) stretch to fill the container</p>	<p>Use one or a combination of classes below to specify what breakpoints you would like the properties to be applied.</p> <p>Docs: http://getbootstrap.com/docs/4.0/utilities/flex/#align-items</p> <p>.align-items-start .align-items-end .align-items-center .align-items-baseline .align-items-stretch .align-items-(sm, md, lg, xl)-(start, end, center, baseline, stretch)</p>

Step 6: Do you want the items to wrap if they don't fit on one line?

CSS	Bootstrap 4
<p>flex-wrap:</p> <p>Docs: https://developer.mozilla.org/en-US/docs/Web/CSS/flex-wrap</p> <p>nowrap (default)</p> <p>all items will try to stay on one line</p> <p>wrap</p> <p>if items don't fit they will wrap and create a new line below</p> <p>wrap-reverse</p> <p>if items don't fit they will wrap and create a new line above</p>	<p>Use one or a combination of classes below to specify what breakpoints you would like the properties to be applied.</p> <p>Docs: http://getbootstrap.com/docs/4.0/utilities/flex/#wrap</p> <p>.flex-nowrap</p> <p>.flex-wrap</p> <p>.flex-wrap-reverse</p> <p>.flex-(sm, md, lg, xl)-(nowrap, wrap, wrap-reverse)</p>

Shorthand property

This is a shorthand property that sets the **flex-direction** and **flex-wrap** properties. I suggest avoid using this until you learn the core properties because it could make things more confusing.

CSS	Bootstrap 4
<p>flex-flow:</p> <p>Docs: https://developer.mozilla.org/en-US/docs/Web/CSS/flex-flow</p> <p>< flex-direction > < flex-wrap ></p> <p>example: flex-flow: column-reverse wrap-reverse; or just flex-flow: wrap-reverse;</p>	<p>Since Bootstrap uses classes there is no shorthand property available.</p>

Do you know what knowledge you're missing?

Learn what you need to know *before* using Bootstrap 4.

**The problem isn't what you know...
but what you don't.**

There is nothing more embarrassing than being unable to answer an interview question or having a coworker bad mouth your messy code. It is impossible to know everything, especially when you are just starting out.

I see a huge knowledge gap right now for beginners who are learning Bootstrap before learning HTML, CSS, and responsive design basics.

If that sounds like you, here's how you can learn what you need to know BEFORE you start using Bootstrap in your projects.



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Flex Item

Do you want to override the parent settings and give a specific item their own unique settings? You will first need to write a custom class and add it to the item you would like to modify.

- Flexbox items follow the orders given by their container.
- By default, flex items all want to appear on the same line
- Individual flexbox items can be targeted with a unique class and property to override the orders given by their container. The example below uses the class `.flex-item-a` to make adjustments to only flex-item-a

Example:

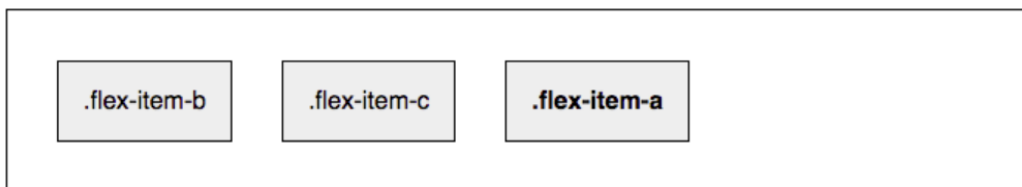
HTML

```
<div class="flex-container">  
  <div class="flex-item-a">.flex-item-a</div>  
  <div class="flex-item-b">.flex-item-b</div>  
  <div class="flex-item-c">.flex-item-c</div>  
</div>
```

CSS

```
.flex-item-a {  
  order: 3;  
  font-weight: bold;  
}
```

Result



Step 1: Do you want to change the order of this item relative to the other items?

CSS	Bootstrap 4
order: Docs: https://developer.mozilla.org/en-US/docs/Web/CSS/order [number] default is 0	Use one or a combination of classes below to specify what breakpoints you would like the properties to be applied. Docs: http://getbootstrap.com/docs/4.0/utilities/flex/#order .order-(1-12) .order-sm-(1-12) .order-md-(1-12) .order-lg-(1-12) .order-xl-(1-12)

Step 2: Do you want to have this item take up more space than the other items?

CSS	Bootstrap 4
flex-grow: Docs: https://developer.mozilla.org/en-US/docs/Web/CSS/flex-grow [number] default is 0	No classes available

Step 3: Do you want this item to take less space than the other items?

CSS	Bootstrap 4
flex-shrink: Docs: https://developer.mozilla.org/en-US/docs/Web/CSS/flex-shrink [number] default is 0	No classes available

Step 4: Do you want to set the default size of this item before the other item sizes are set?

CSS	Bootstrap 4
flex-basis: Docs: https://developer.mozilla.org/en-US/docs/Web/CSS/flex-basis [length] A number followed by px, em, rem, or %. Check the docs for additional keywords auto (default) look at my width or height property	No classes available

Step 5: Do you want to override the align-items value for this item?

CSS	Bootstrap 4
<p>align-self:</p> <p>Docs: https://developer.mozilla.org/en-US/docs/Web/CSS/align-self</p> <p>auto inherits the parent container's align-items property</p> <p>flex-start cross-start margin is on the cross start line</p> <p>flex-end cross-end margin is on the cross end line</p> <p>center centers are aligned</p> <p>baseline baselines are aligned</p> <p>stretch (default) fill the container</p>	<p>Use one or a combination of classes below to specify what breakpoints you would like the properties to be applied.</p> <p>Docs: http://getbootstrap.com/docs/4.0/utilities/flex/#align-self</p> <p>.align-self-start</p> <p>.align-self-end</p> <p>.align-self-center</p> <p>.align-self-baseline</p> <p>.align-self-stretch</p> <p>.align-self-sm-(start, end, center, baseline, stretch)</p> <p>.align-self-md-(start, end, center, baseline, stretch)</p> <p>.align-self-lg-(start, end, center, baseline, stretch)</p> <p>.align-self-xl-(start, end, center, baseline, stretch)</p>

Shorthand property

This is the shorthand for flex-grow, flex-shrink and flex-basis combined.

CSS	Bootstrap 4
<p>flex:</p> <p>Docs: https://developer.mozilla.org/en-US/docs/Web/CSS/flex</p> <p>example:</p> <p>Three values: flex-grow flex-shrink flex-basis</p> <p>flex: 2 2 10%;</p>	<p>Since Bootstrap uses classes there is no shorthand property available</p>

**Find an error?
Or have a comment?**

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