

Flexbox

The Flexible Box Layout Module, makes it easier to design flexible responsive layout structure without using float or positioning.

Flexbox

- The “Flexible Box” or “Flexbox” layout mode offers an alternative to Floats for defining the overall appearance of a web page. Whereas floats only let us horizontally position our boxes, flexbox gives us complete control over the alignment, direction, order, and size of our boxes.

Features

Direction – You can arrange the items on a web page in any direction such as left to right, right to left, top to bottom, and bottom to top.

Order – Using Flexbox, you can rearrange the order of the contents of a web page.

Wrap – In case of inconsistent space for the contents of a web page (in single line), you can wrap them to multiple lines (both horizontally) and vertically.

Alignment – Using Flexbox, you can align the contents of the webpage with respect to their container.

Resize – Using Flexbox, you can increase or decrease the size of the items in the page to fit in available space.

Flexbox



ALIGNMENT



DIRECTION



ORDER



SIZE

Supporting browsers

- Chrome 29+
- Firefox 28+
- Internet Explorer 11+
- Opera 17+
- Safari 6.1+
- Android 4.4+
- iOS 7.1+

Container

First step to use Flexbox is to define a flex container using the display property

Display property accepts two values

flex – Generates a block level flex container.

inline-flex – Generates an inline flex container box.

```
.container{  
  display:flex;  
}
```

Container and Items

Flex container groups flex items together and define how they are positioned

Every HTML element that's a direct child of a flex container is an "item".

Designing a complex layout means nesting boxes. Flex items can become flex containers for their own items.

Flex container and items



“FLEX CONTAINER”



“FLEX ITEMS”

Flex Direction

This property accepts four values –

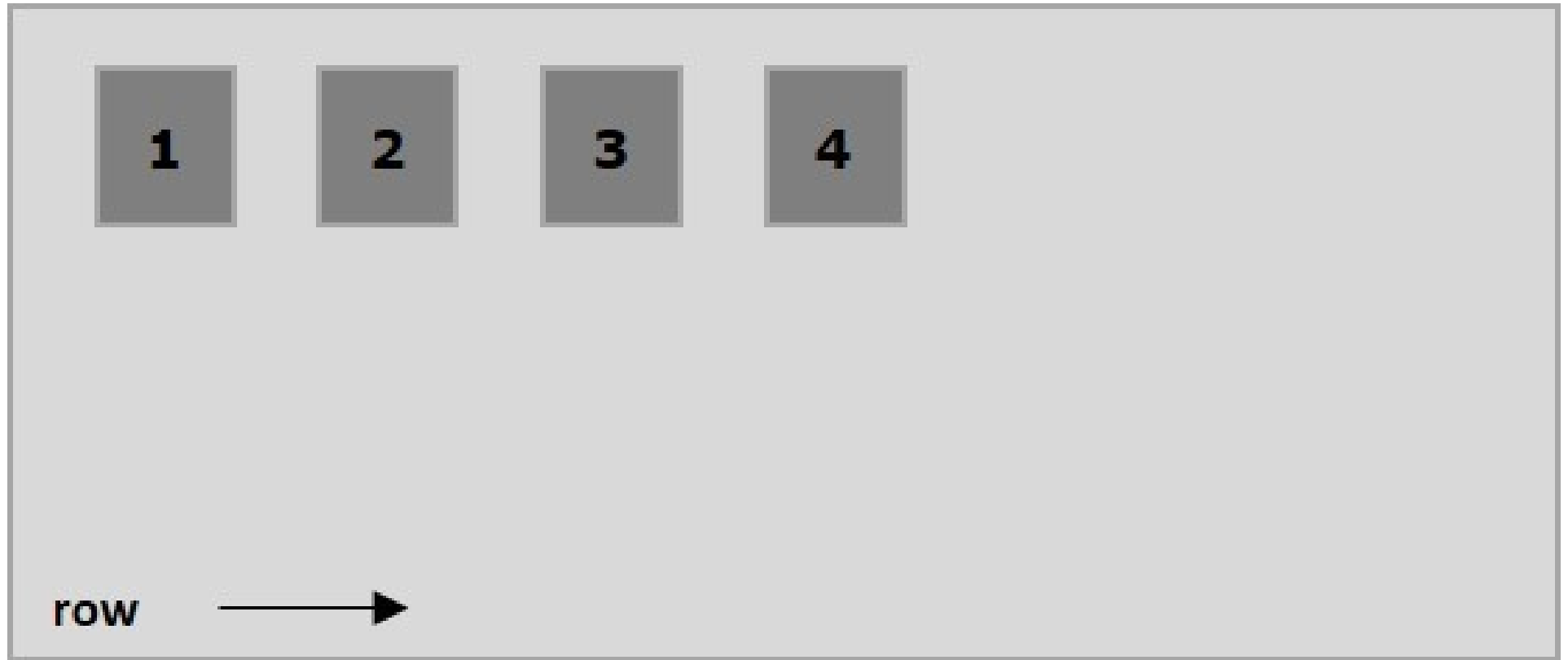
row – Arranges the elements of the container horizontally from left to right.

row-reverse – Arranges the elements of the container horizontally from right to left.

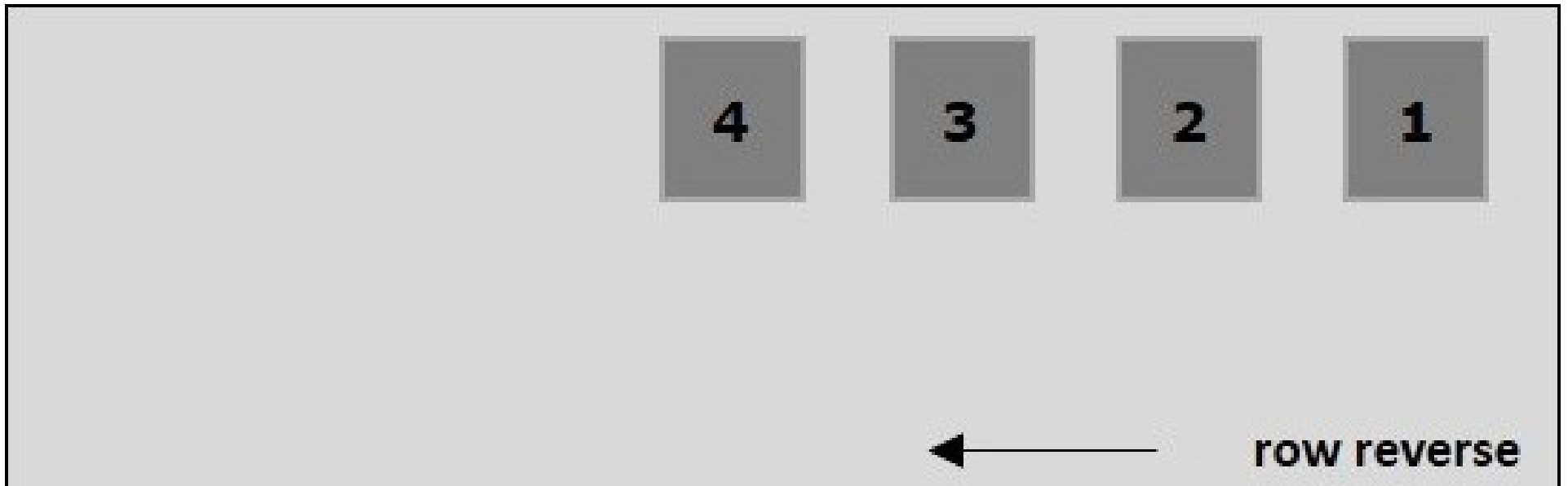
column – Arranges the elements of the container vertically from left to right.

column-reverse – Arranges the elements of the container vertically from right to left.

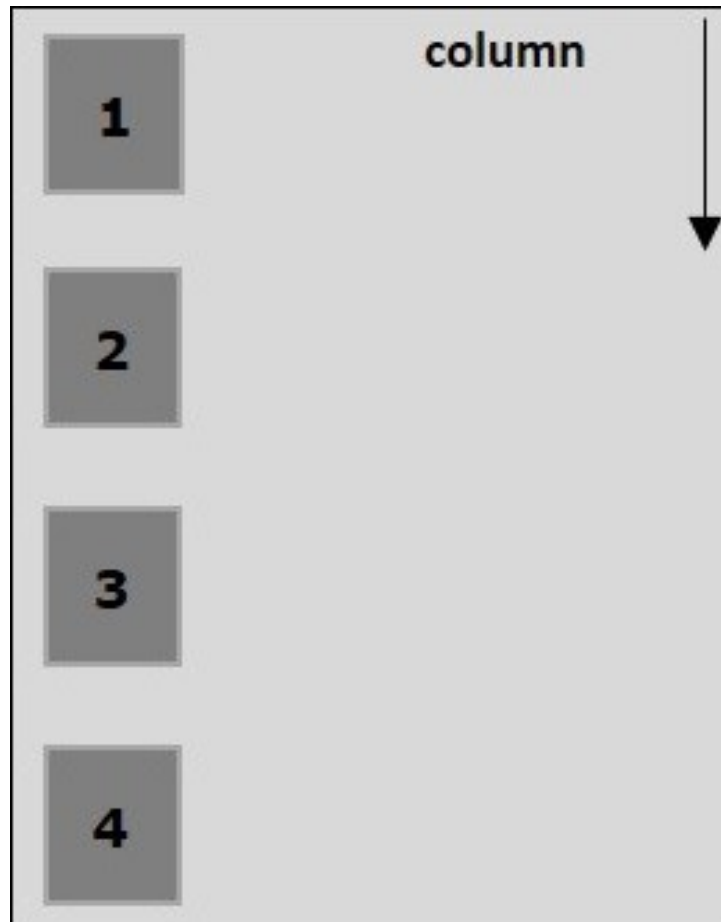
Flex Direction



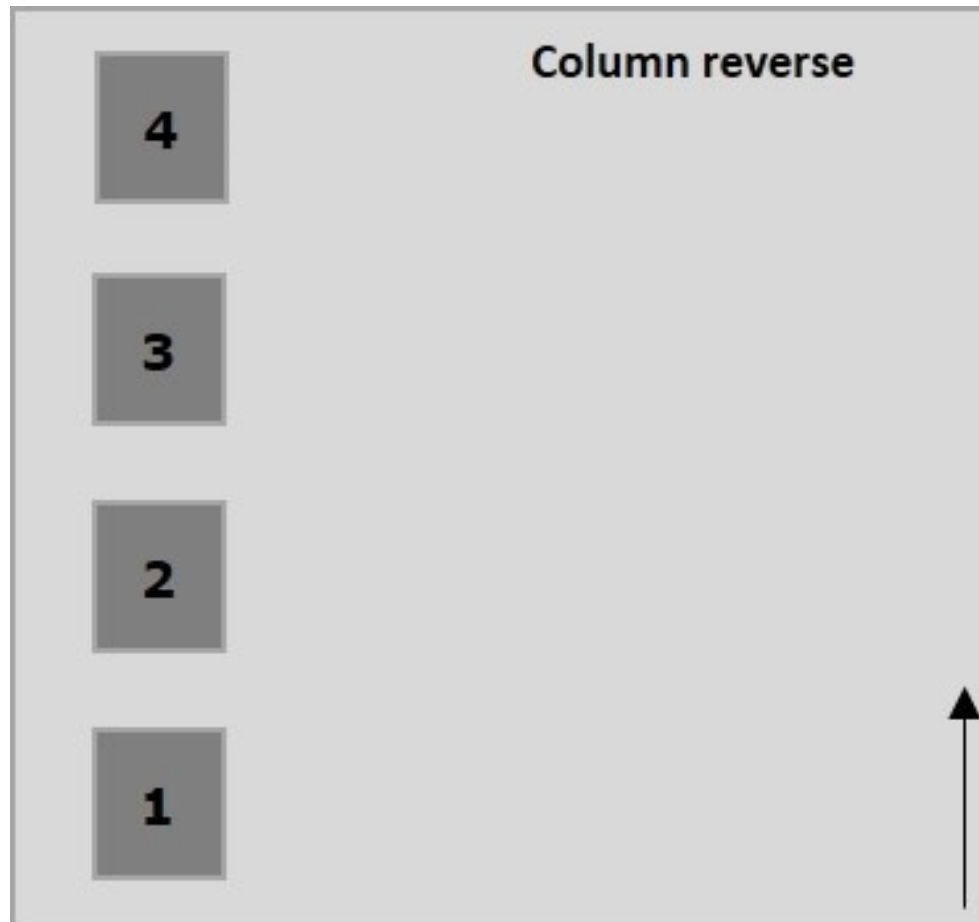
Flex direction



Flex Direction



Flex Direction

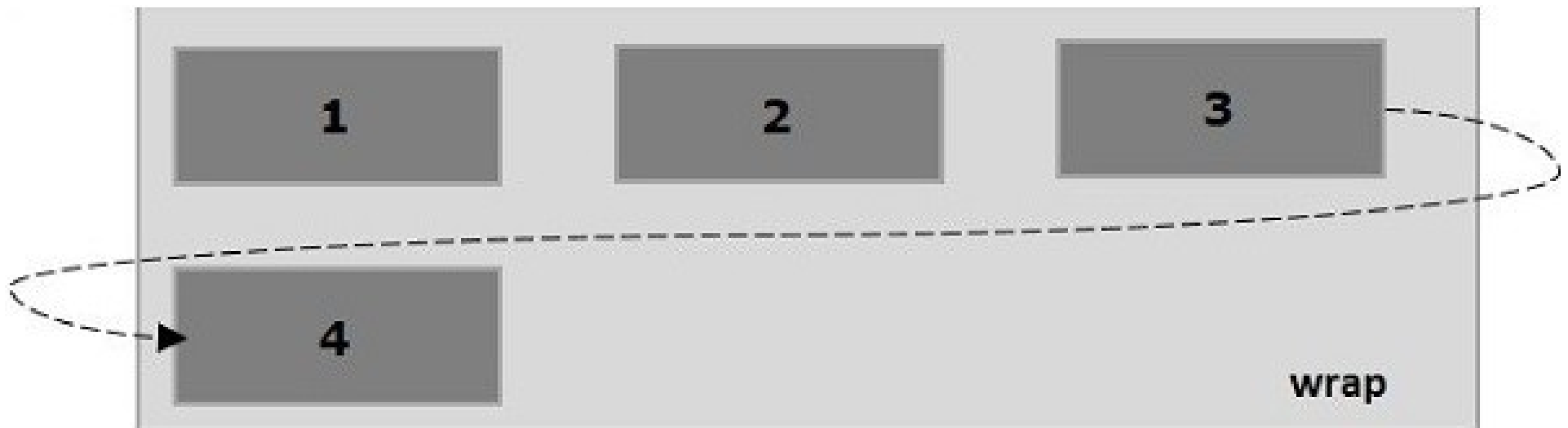


Flexbox - Flex-Wrap

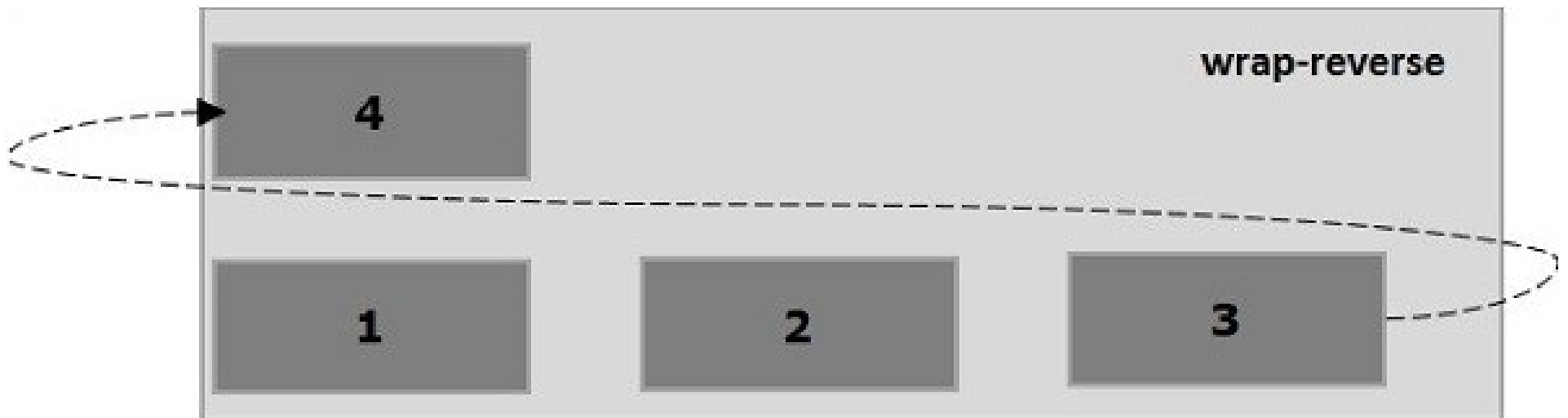
In case of insufficient space for the container, the rest of the flex items will be hidden

On passing the value wrap to the property flex-wrap, the elements of the container are arranged horizontally from left to right

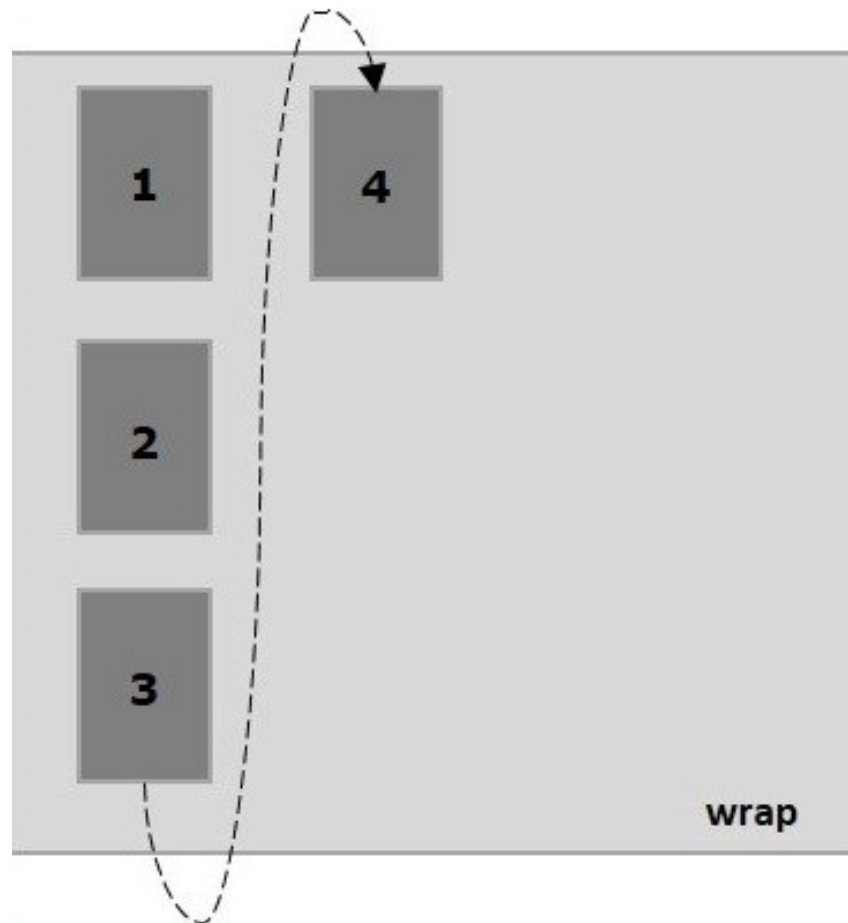
Flexbox - Flex-Wrap



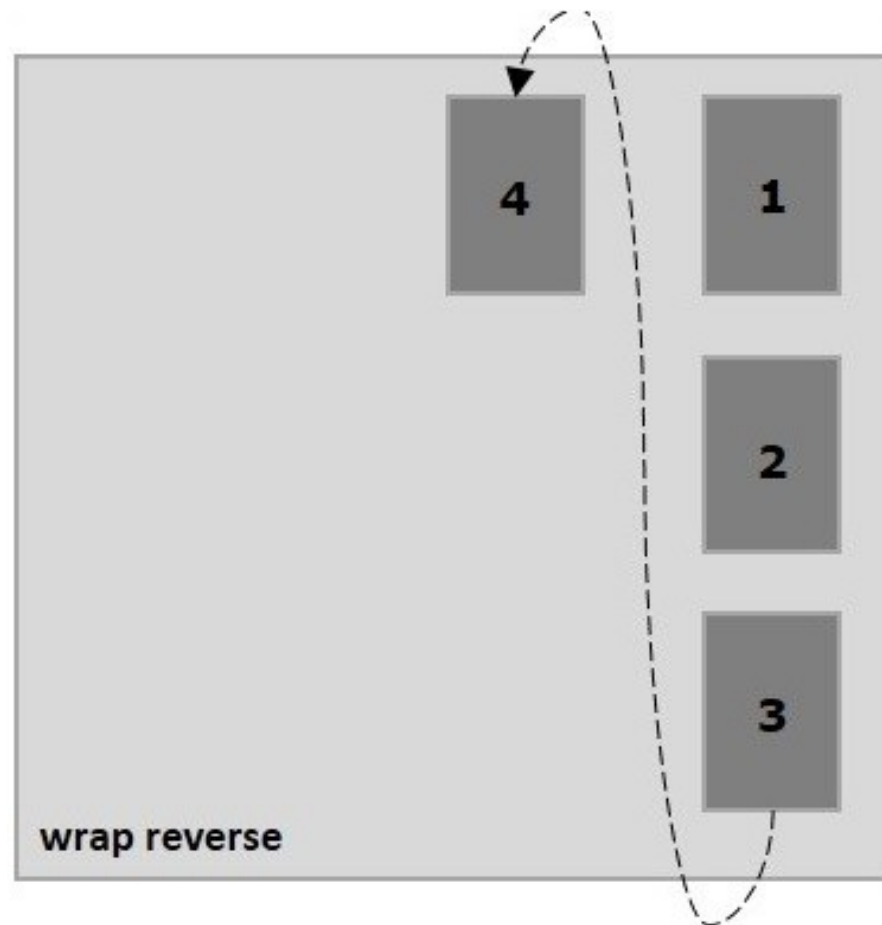
Flexbox - Flex-Wrap



Flexbox - Flex-Wrap



Flexbox - Flex-Wrap



Flexbox - Justifying Contents

Often there is an extra space in the container after arranging the items.

The property `justify-content`, you can align the contents along the main axis by distributing the extra space as intended

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

Flexbox - Align Items

The align-items property is same as justify content. But here, the items were aligned across the cross axis (vertically)

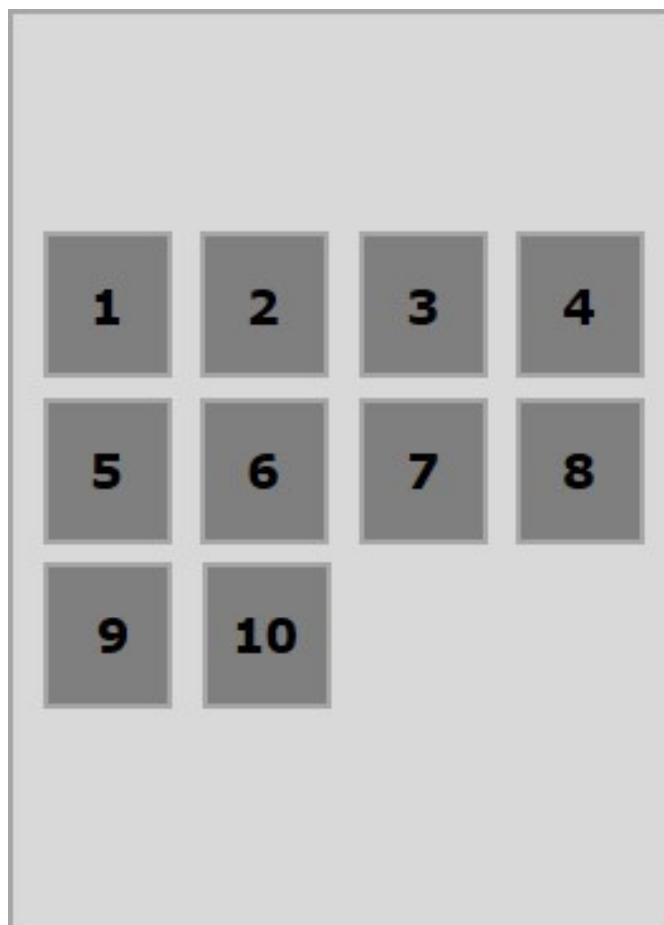
align-items: flex-start | flex-end | center |
baseline | stretch;

Flexbox - Align Content

The align-content property defines the alignment of each line within the container

align-content: flex-start | flex-end | center |
space-between | space-around | stretch;

Flexbox - Align Content



Flexbox - Flex-Order

The flex-order property is used to define the order of the flexbox item.

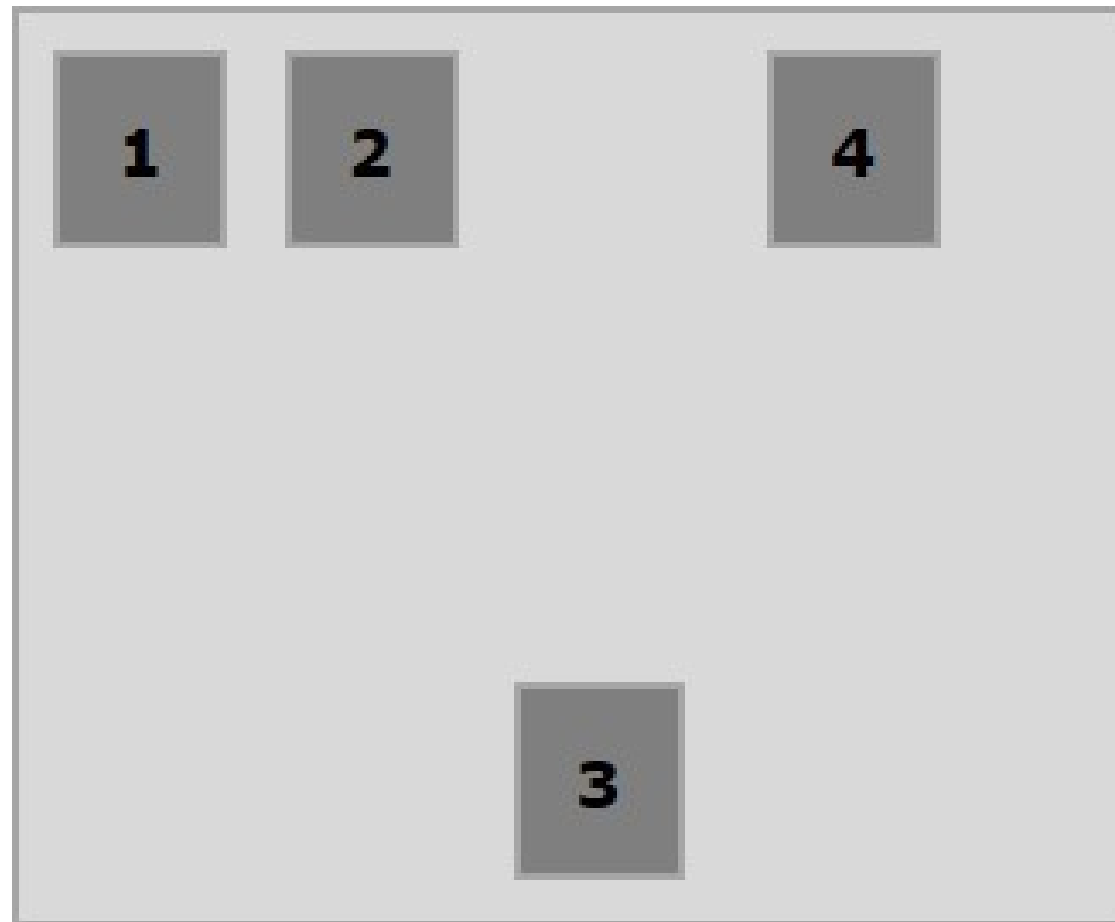
Flexbox - Align Self

This property is similar to align-items, but here, it is applied to individual flex items.

align-self: auto | flex-start | flex-end | center |
baseline | stretch;

```
.box4{align-self:flex-end;}
```


Flexbox - Align Self



Exercises

<http://flexboxfroggy.com/>

<https://yoksel.github.io/flex-cheatsheet/>

Sources

- <https://internetingishard.com/html-and-css/flexbox/>
- https://www.tutorialspoint.com/flexbox/flexbox_flex_containers.htm