

Responsive Layout w/ Flexbox

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Why Another Layout Model?

- Existing layout models and tools require hacks to do complex layouts
- None of the existing tools were created explicitly for laying out content

Flexible Box Layout Model (Flexbox)

- CSS already has block, inline, table, and positioned layout model - Flexbox is just another one
- Flexbox aims to be a better way to lay out content

Flexbox spec: <http://www.w3.org/TR/css3-flexbox/>

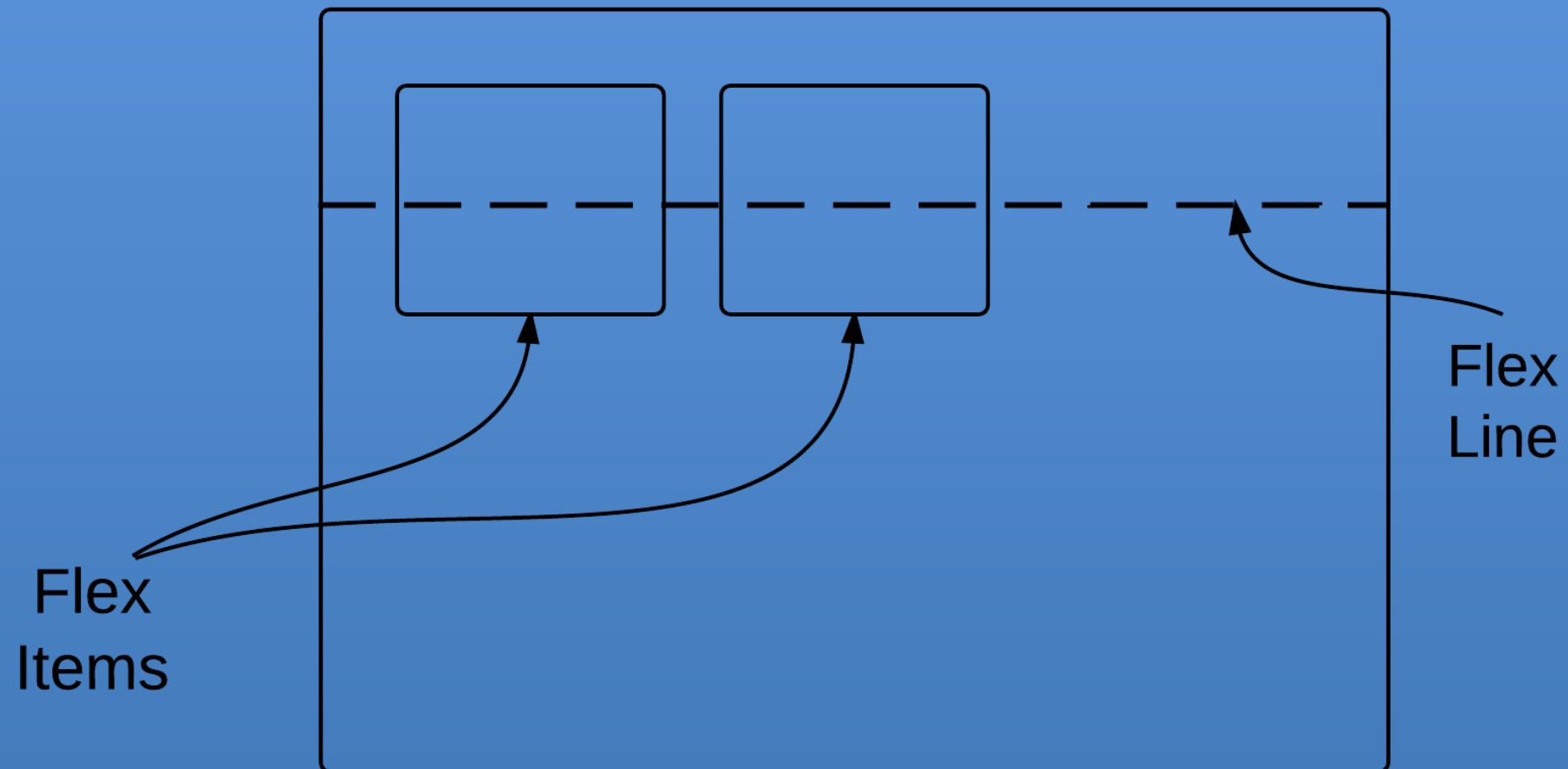
Flexbox Key Ideas

- Let the container alter its items' width/height (and order) to best fill the available space
- Direction-agnostic instead of vertically-based (block) or horizontally-based (inline)
- Support complex layouts and consider orientation changes, resizing, stretching, shrinking, etc.

Browser Support

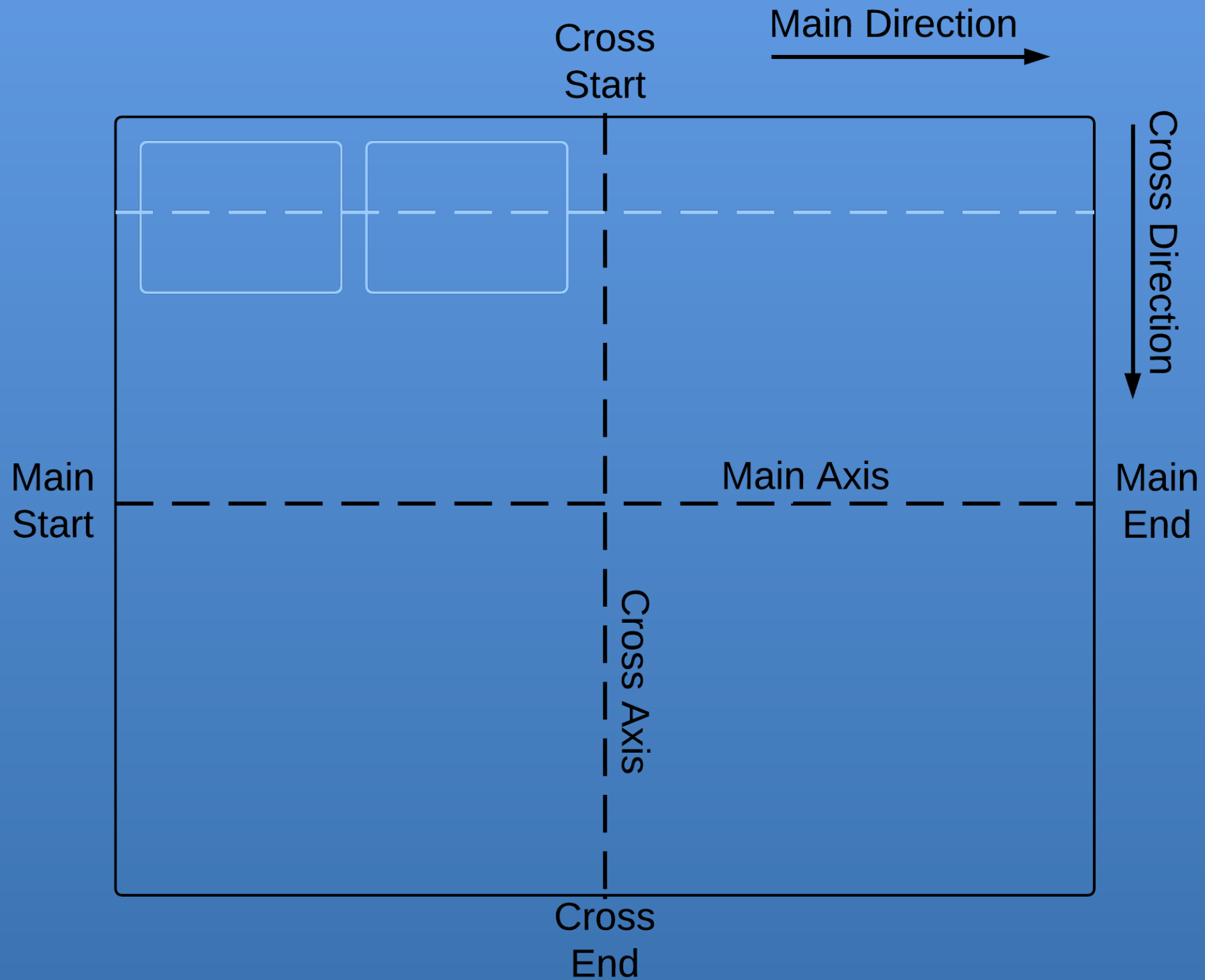
- <http://caniuse.com/flexbox> (any modern browser)
 - Chrome 21+
 - Firefox 18+
 - IE 10+
 - Safari 6.1+
 - Android Browser 2.1+
 - iOS Safari 7.0+
 - IE Mobile 11+
- Some version require --moz, --webkit, --ms prefixes

Flex Container



Anatomy & Terminology

- Flex Container: "display: flex" or "display: inline-flex" on an element
- Flex Item: immediate child (element or text) of the flex container



Anatomy & Terminology

Demo

flex container with flex items

Flex Container Properties

flex-flow

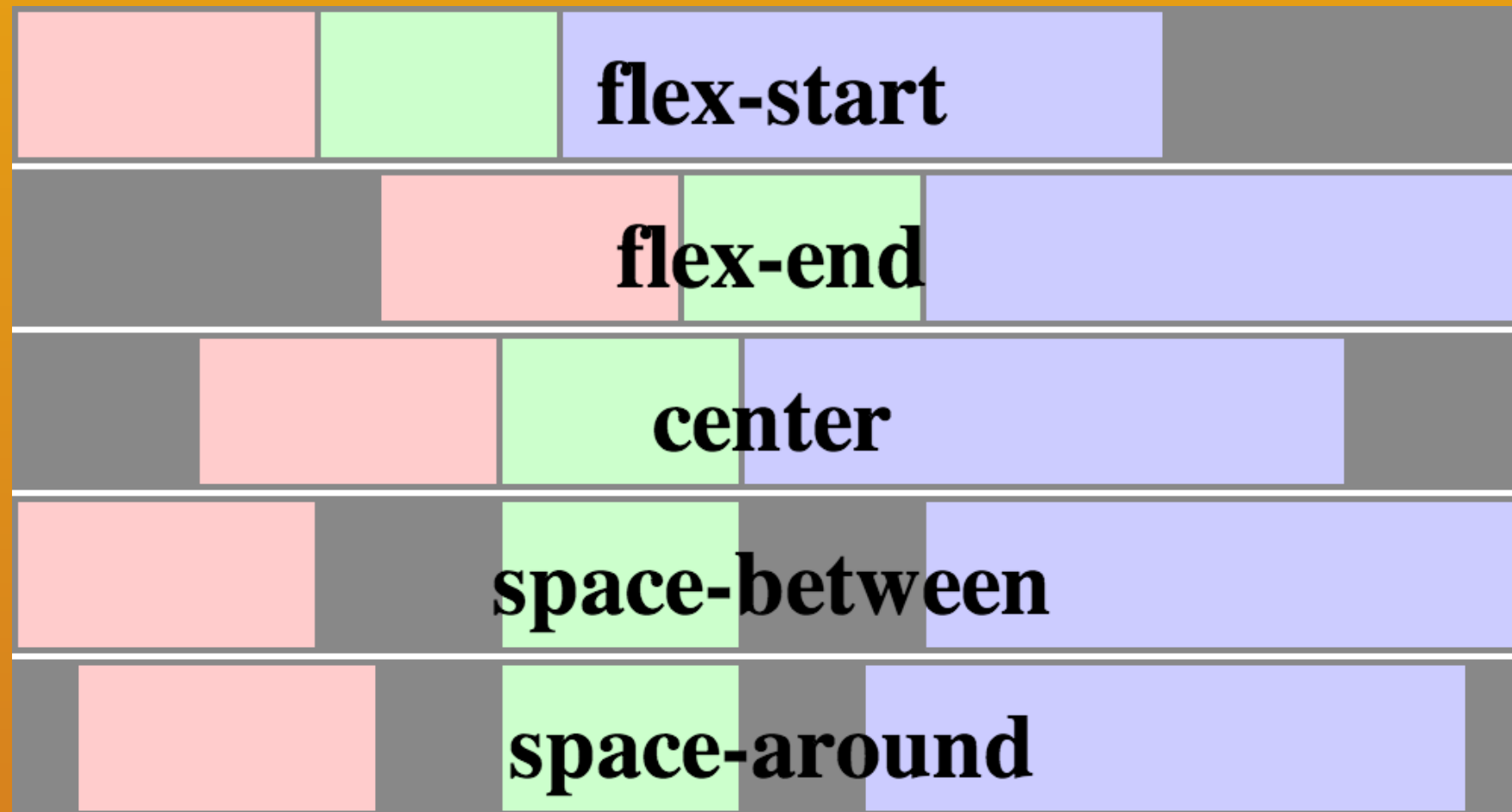
- "flex-direction" change the axes of the Flex Container
 - Values: row (default), row-reverse, column, and column-reverse.
- "flex-wrap" lets you create Flex Containers with multiple Flex Lines. Values: nowrap (default), wrap, and wrap-reverse
- "flex-flow" is a convenient shorthand for "flex-direction" and "flex-wrap"

Demo

flex-flow (flex-direction & flex-wrap)

Flex Container

justify-content



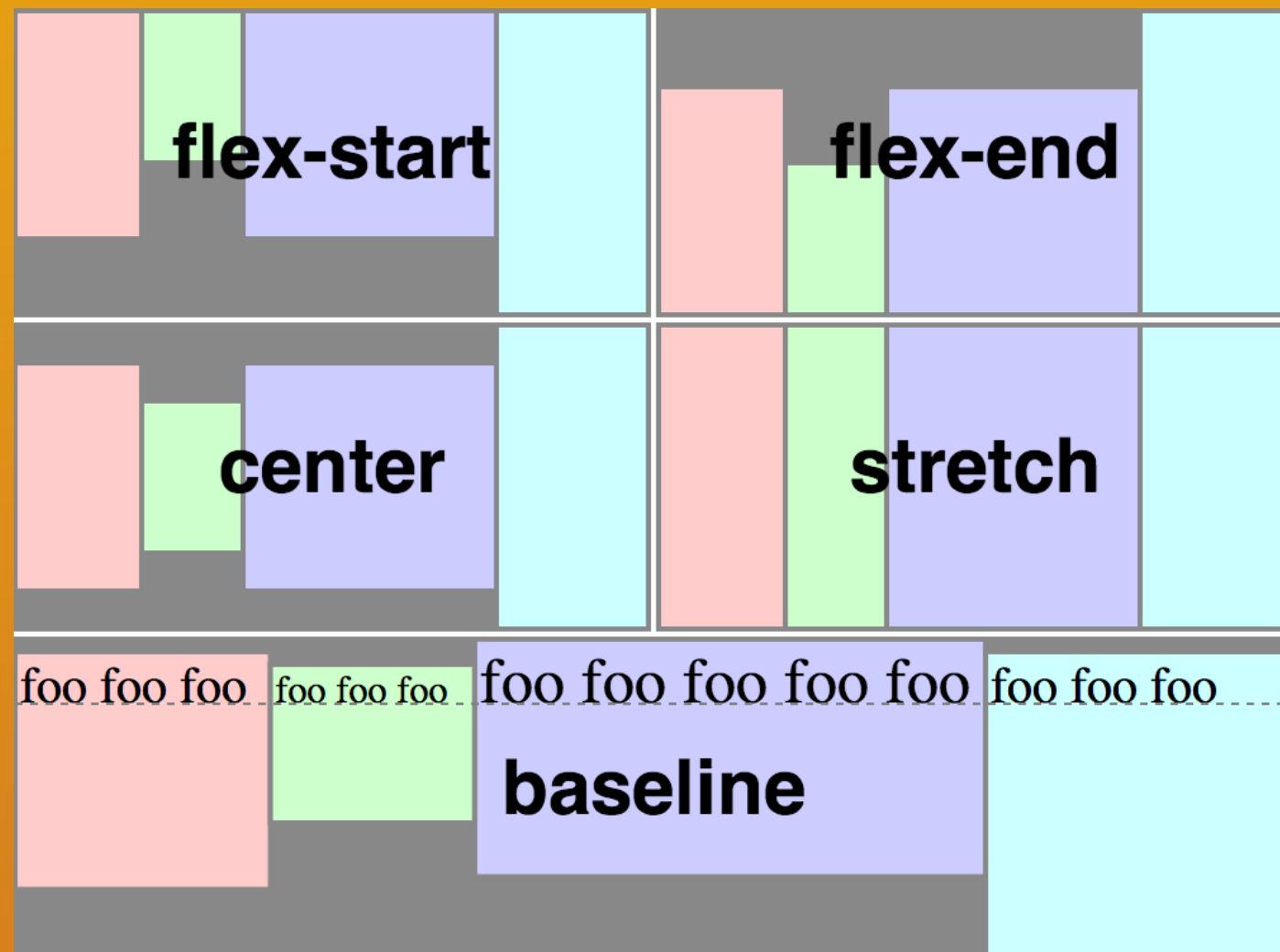
- "justify-content" adjusts the positions of Flex Items on the Main Axis - default is flex-start

Demo

justify-content

Flex Container

align-items



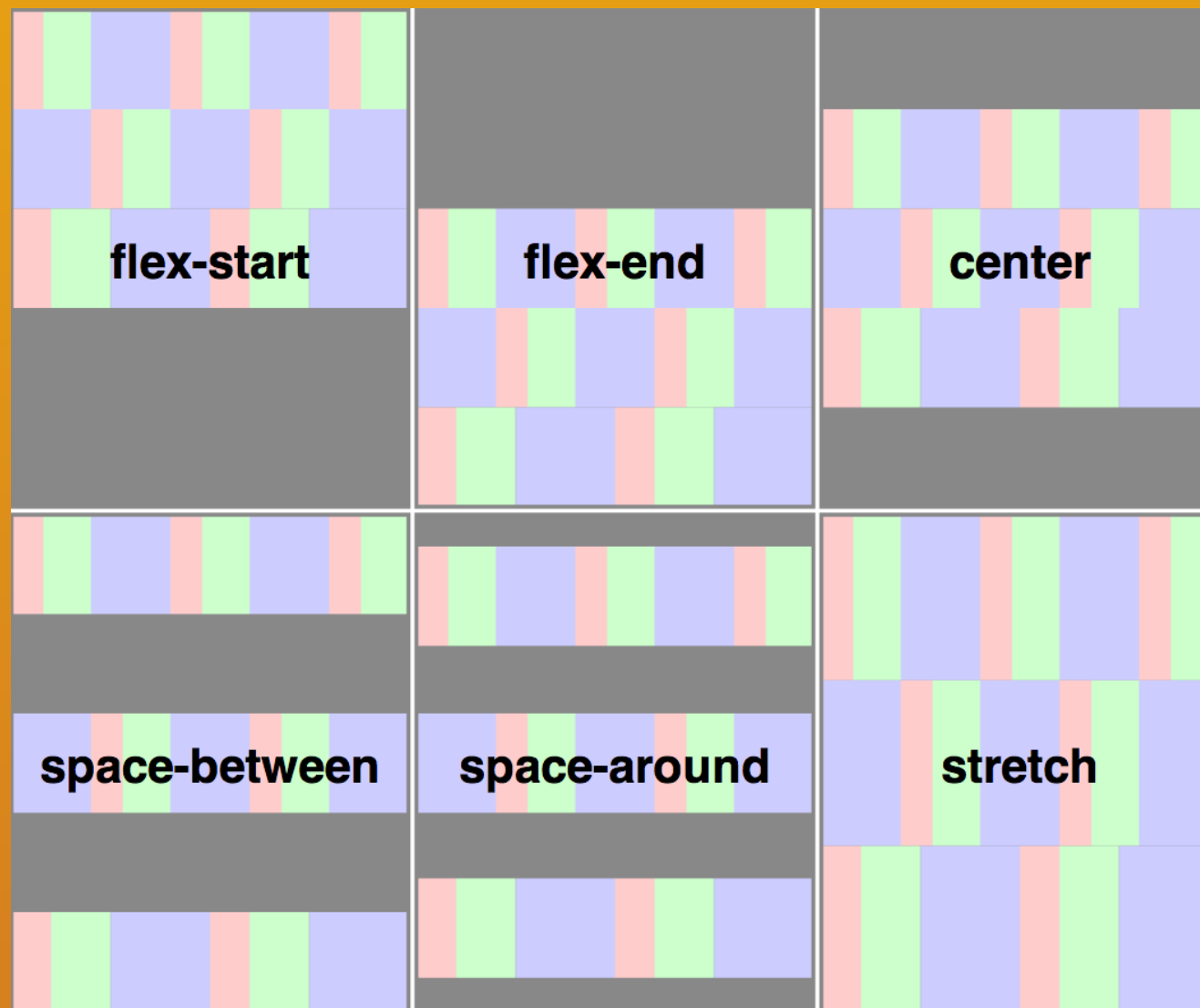
- "align-items" adjusts the way Flex Items are positioned on the Cross Axis - default is flex-start

Demo

align-items

Flex Container

align-content



- "align-content" modifies flex-wrap and aligns flex lines on the cross axis - default is stretch.

Demo

align-content

Flex Item Properties

margin and align-self

- “margin” works normally, but absorbs extra space
- “align-self” overrides container’s “align-items” for a flex-item - default is stretch

Demo

`margin: auto; margin-right: auto; and align-self`

Flex Item Properties

flex

- “flex” controls how a flex item will be prioritized when distributing free space on the main axis
- The number is the ratio of free space the flex item can take relative to other flex items.
- Values: initial, auto, none

Demo

flex (basic)

Flex Item Properties

flex

- “flex” is shorthand for “flex-grow”, “flex-shrink”, and “flex-basis”

`flex: 1 1 100%;` == `flex-grow: 1; flex-shrink: 1; flex-basis: 100%;`

- flex-grow default is 0

Demo

flex (advanced)

Flex Item Properties

order

- “order” - adjusts the order of a flex item relative to other flex items, independent of source order :)

Demo

order w/Holy Grail Layout

Playground

Flexplorer (<http://bennettfeely.com/flexplorer/>)

Flexy Boxes (<http://the-echoplex.net/flexyboxes/>)

CSS Flexbox Please! (<http://demo.agektmr.com/flexbox/>)

Problems Solved by Flexbox

<http://philipwalton.github.io/solved-by-flexbox/>

Thanks & Questions?

Slides & Demos on <https://github.com/aaronlubean/flexbox>