ODTUG
Kscope18
ORLANDO, FLORIDA • JUNE 10-14
PLEASE
FILL OUT YOUR
EVALUATIONS

Advanced CSS Techniques to Make Your Applications Look Even Better

Maxime Tremblay

Bio

Maxime Tremblay

Senior APEX developer at
Momentum Technologies

apex.world Member of the Year
2016

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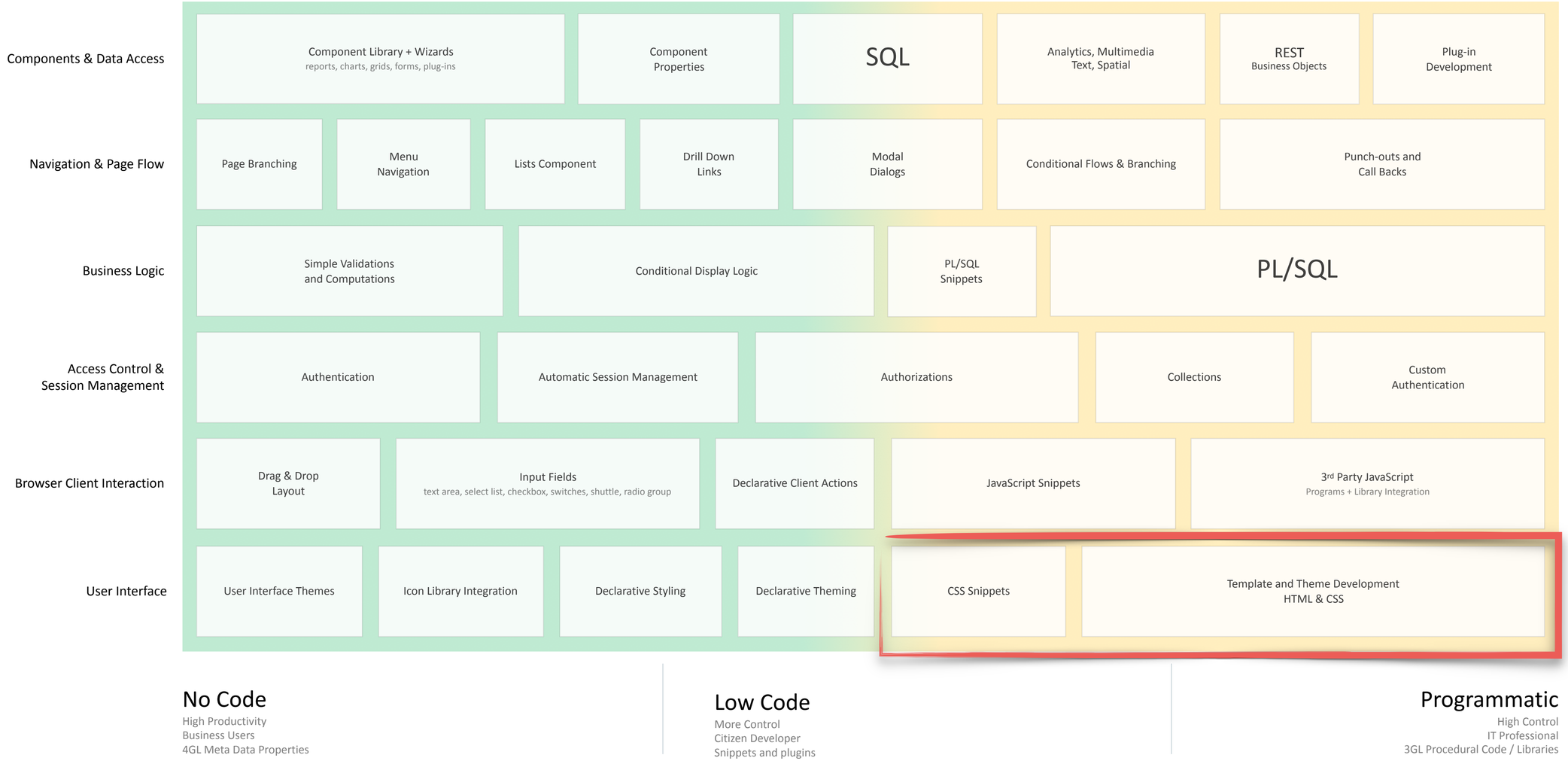
ORACLE
ACE Associate

Oracle APEX


Components & Data Access
Component Library + Wizards
reports, charts, grids, forms, plug-ins
Component Properties
SQL
Analytics, Multimedia Text, Spatial
REST
Business Objects
Plug-in Development
Navigation & Page Flow
Page Branching
Menu Navigation
Lists Component
Drill Down Links
Modal Dialogs
Conditional Flows & Branching
Punch-outs and Call Backs
Business Logic
Simple Validations and Computations
Conditional Display Logic
PL/SQL Snippets
PL/SQL
Access Control & Session Management
Authentication
Automatic Session Management
Authorizations
Collections
Custom Authentication
Browser Client Interaction
Drag & Drop Layout
Input Fields
text area, select list, checkbox, switches, shuttle, radio group
Declarative Client Actions
JavaScript Snippets
3rd Party JavaScript
Programs + Library Integration
User Interface
User Interface Themes
Icon Library Integration
Declarative Styling
Declarative Theming
CSS Snippets
Template and Theme Development
HTML & CSS
No Code
High Productivity
Business Users
4GL Meta Data Properties
Low Code
More Control
Citizen Developer
Snippets and plugins
Programmatic
High Control
IT Professional
3GL Procedural Code / Libraries

Agenda

- Writing Better CSS
- Media Queries
- Animations
- Flexbox
- Demos

CSS
IS
AWESOME

Agenda

- > Writing Better CSS
- Media Queries
- Animations
- Flexbox
- Demos

Writing Better CSS

- Write more maintainable CSS
  - BEM
  - Object Oriented CSS
  - SMACSS
  - Atomic Design

Writing Better CSS

- CSS Preprocessors
  - Sass
  - LESS

Writing Better CSS

- CSS Preprocessors
  - Variables
  - Nesting
  - Mixins
  - Extends
  - Imports
  - Color Operations
  - If/Else Statements
  - Math
  - Loops

Writing Better CSS

- Compatibility
  - caniuse.com

Can I use _____ ? Settings

Legend

= Supported

= Not supported

= Partial support

= Support unknown

Writing Better CSS

- Autoprefixer
  - Adds vendor prefixes
    - Autoprefixer CSS online
    - Text editor plugin (Atom, VSC, Sublime)

Writing Better CSS

- Autoprefixer

```
.example {
    display: flex;
    transition: all .5s;
    user-select: none;
}
```

```
.example {
    display: -webkit-box;
    display: -ms-flexbox;
    display: flex;
    -webkit-transition: all .5s;
    transition: all .5s;
    -webkit-user-select: none;
       -moz-user-select: none;
        -ms-user-select: none;
            user-select: none;
}
```

Writing Better CSS

- Use it all together

Agenda

- > Writing Better CSS
- Media Queries
- Animations
- Flexbox
- Demos

Agenda

- ✓ Writing Better CSS
- > Media Queries
- ☐ Animations
- ☐ Flexbox
- ☐ Demos

Media Queries

- Media Types
  - Introduced in CSS2
  - CSS rules by media types

Media Queries

- Media Queries
  - Introduced in CSS3
  - CSS rules by media types

Media Queries

- Media Queries

Value	Description
all	Used for all media type devices
print	Used for printers
screen	Used for computer screens, tablets, smart-phones etc.
speech	Used for screenreaders that "reads" the page out loud

Media Queries

- Media Queries

```
@media not|only mediatype and (expressions) {
    CSS-Code;
}
```

```
<link rel="stylesheet" media="mediatype and|not|only (expressions)" href="print.css">
```

```
@import url("print.css") mediatype and|not|only (expressions)
```

Media Queries

Media Queries

```
.example {
   background-color: blue;
}
@media (min-width: 641px) {
   .example {
      background-color: green;
   }
}
@media (min-width: 768px) {
   .example {
      background-color: yellow;
   }
}
@media (min-width: 1200px) {
   .example {
      background-color: orange;
   }
}
```

Agenda

- ✓ Writing Better CSS
- > Media Queries
- ☐ Animations
- ☐ Flexbox
- ☐ Demos

Agenda

- ✓ Writing Better CSS
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Animations

- Change from one style to another
- As many properties, as many times

Animations

- Properties that animate well
  - Opacity
  - Transform

Animations

- Transform
  - Translate
  - Rotating
  - Scaling
  - Matrix

Animations

- Defining an animation

```
@keyframes animation-name {
  0% {

  }
  100% {

  }
}
```

Animations

- Defining an animation

```
@keyframes fade-slide-down {
  0% {
    opacity: 0;
    transform: translateY(-4rem);
  }
  100% {
    opacity: 1;
    transform: none;
  }
}
```

Animations

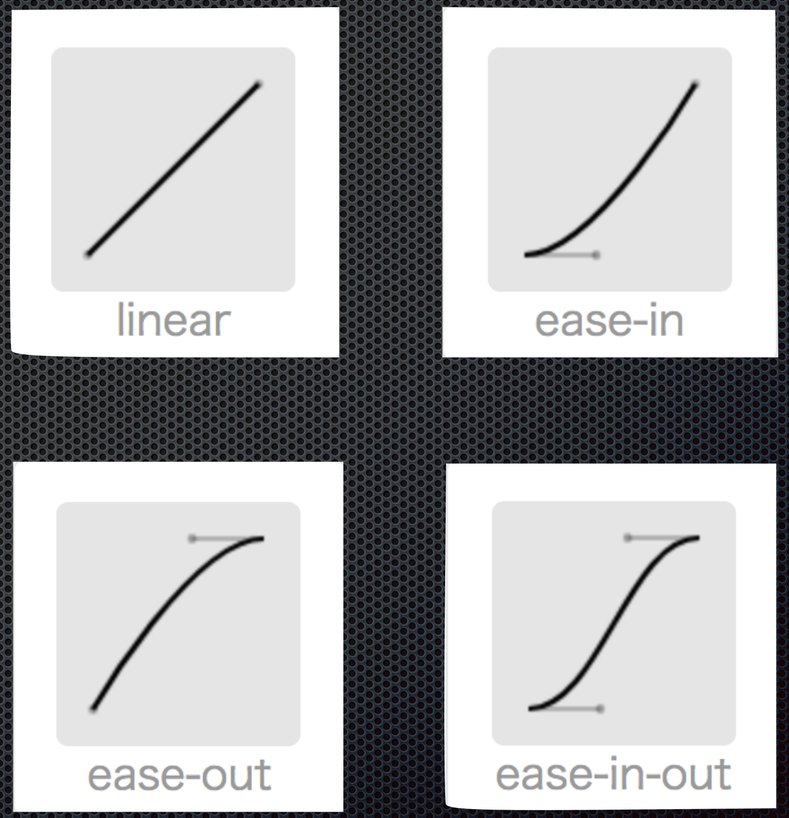
- Animation properties
  - Name
  - Duration
  - Timing
  - Delay
  - Iteration Count
  - Direction

```
div {

}
```

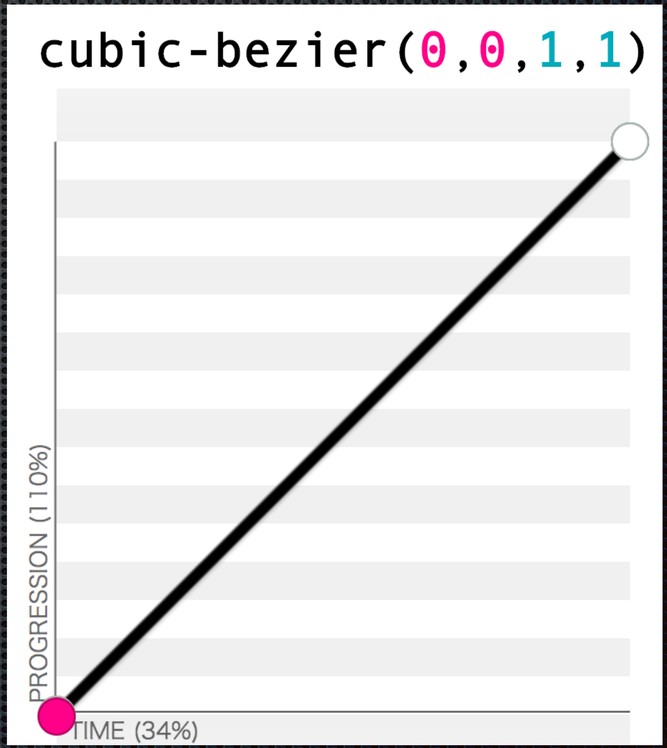
Animations

- Timing functions
  - Pre-built timing function
    - Linear
    - Ease-in
    - Ease-out
    - Ease-in-out



Animations

- Timing functions
  - Custom timing function
    - Cubic-bezier



Animations

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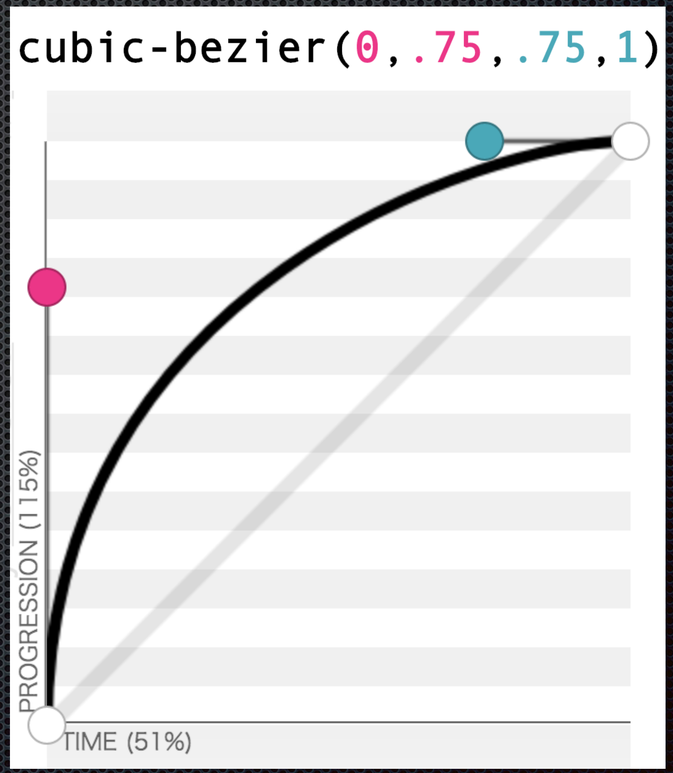
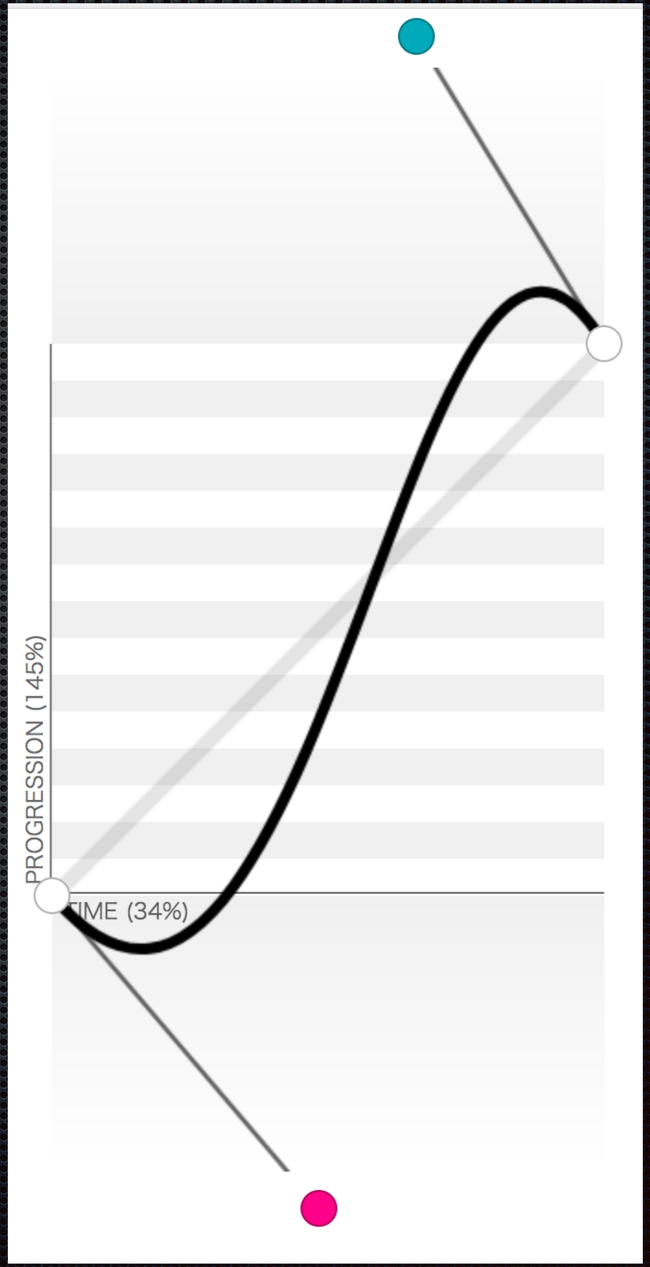


Animations

- Timing functions
  - Custom timing function
    - Cubic-bezier



Animations

- Timing functions
  - Custom timing function
    - Cubic-bezier

Animations

- Delay
  - Time before animation starts

Animations

- Iteration Count
  - Number
  - Infinite

Animations

- Direction
  - Normal
  - Reverse
  - Alternate
  - Alternate-reverse

Animations

- Shorthand

```
div {
    animation-name: animation-name;
    animation-duration: 5s;
    animation-timing-function: linear;
    animation-delay: 2s;
    animation-iteration-count: infinite;
    animation-direction: alternate;
}
```

```
div {
    animation: animation-name 5s linear 2s infinite alternate;
}
```

Animations

- Transition
  - Transitioning from one state to another

Animations

- Transition
  - Transition-property
  - Transition-duration
  - Transition-timing-function
  - Transition-delay

Animations

- Transition

```
.example {
    width: 100px;
    transition: width 2s;
}
.example:hover {
    width: 300px;
}
```

Animations

- Transition

```
.example {
    width: 100px;
    height: 100px;
    transition: width 2s,
                height 4s;
}
```

Animations

- Transition

```
.example {
    width: 100px;
    height: 100px;
    transition: all 2s;
}
```

Animations

- Existing libraries
  - Animate CSS
  - Font Awesome Animation
  - AnimAPEX
  - Hover.css

Agenda

- ✓ Writing Better CSS
- ✓ Media Queries
- > Animations
- ☐ Flexbox
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Flexbox

- What is Flexbox
  - The CSS3 Flexible Box, or flexbox, is a layout mode providing for the arrangement of elements on a page such that the elements behave predictably when the page layout must accommodate different screen sizes and different display devices. For many applications, the flexible box model provides an improvement over the block model in that it does not use floats, nor do the flex container's margins collapse with the margins of its contents

Flexbox

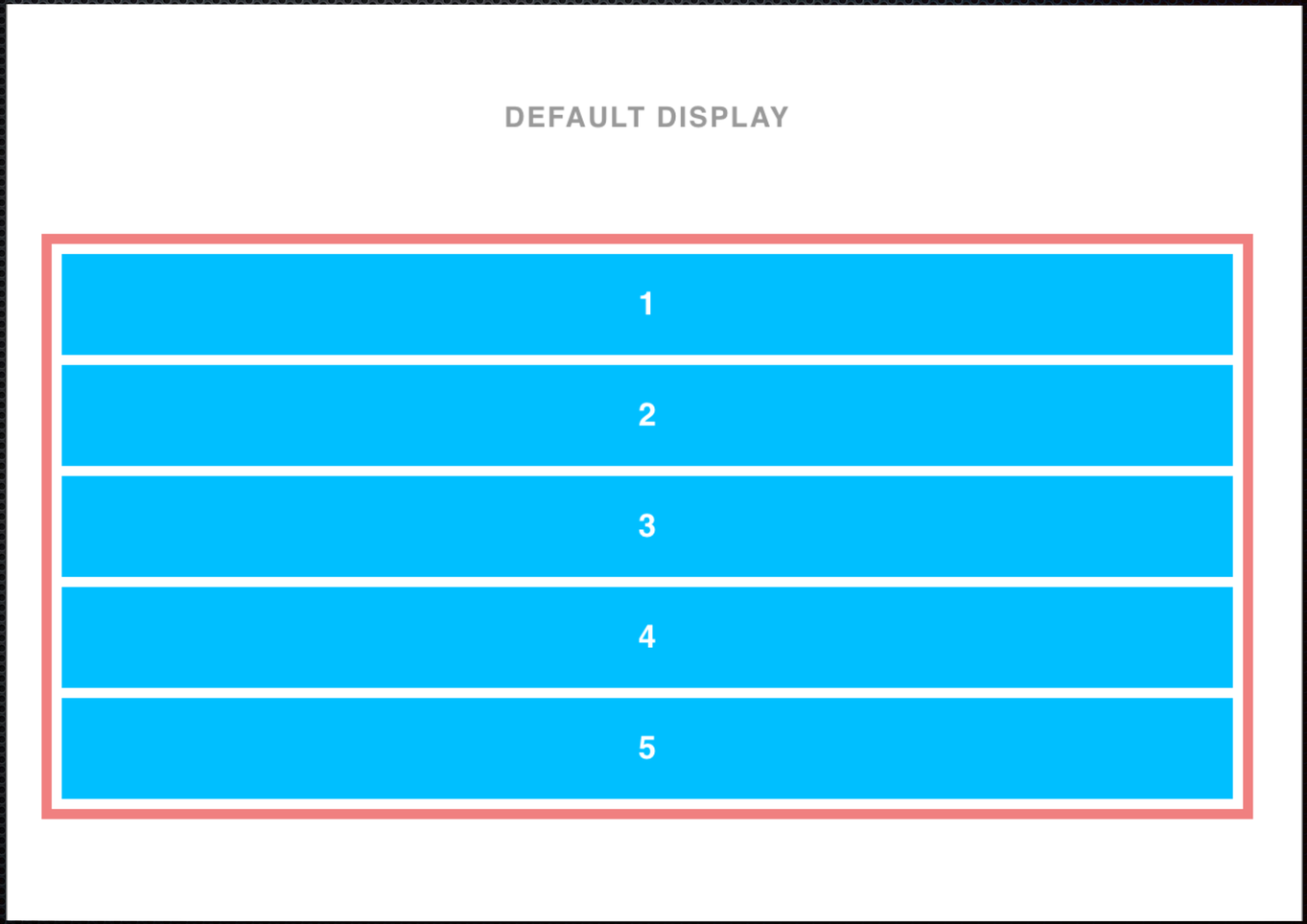
- What is Flexbox
  - Provides a more efficient way to lay out, align and distribute space among items in a container

Flexbox

- Properties
  - Parent (flex container)
  - Children (flex items)

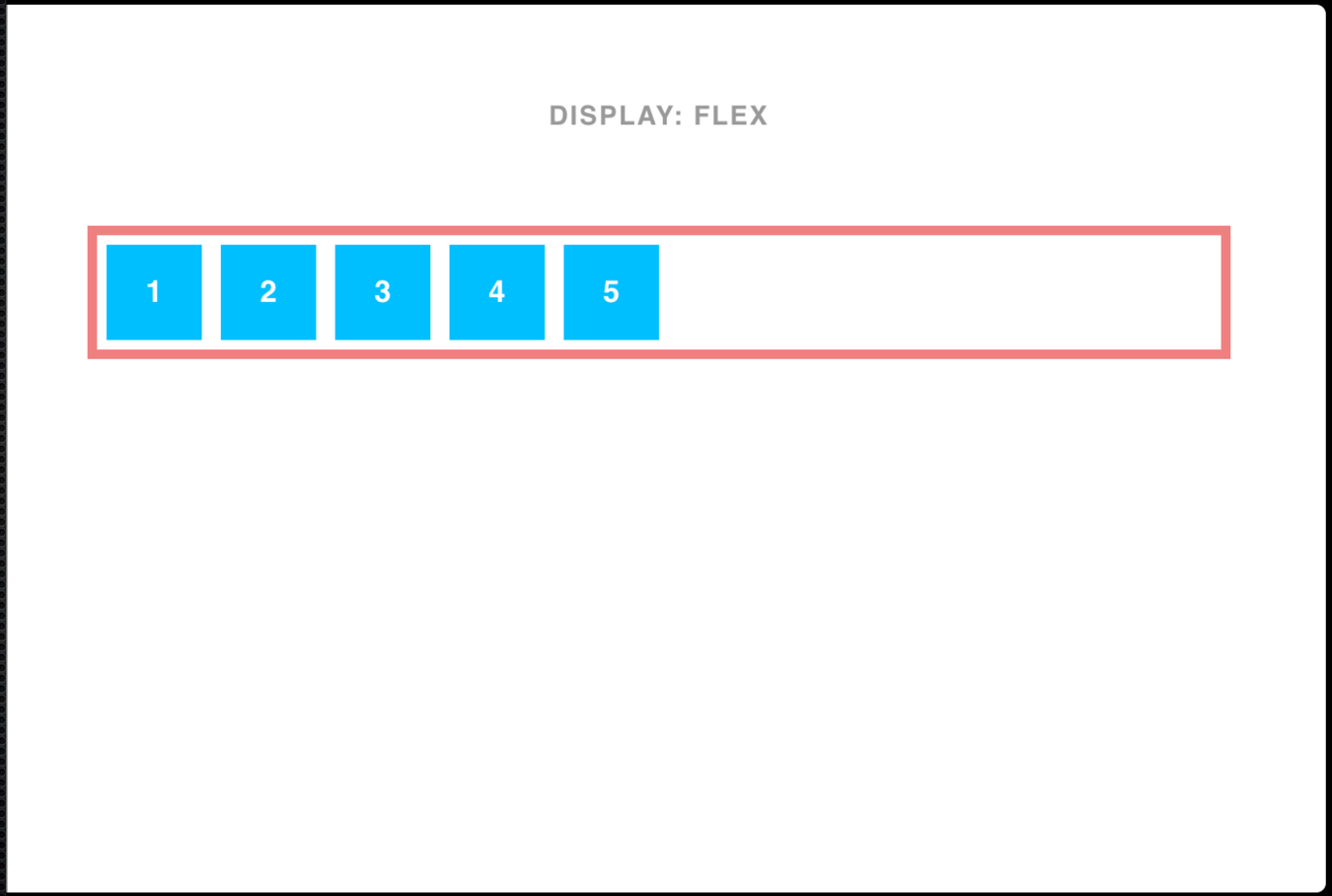
Flexbox

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



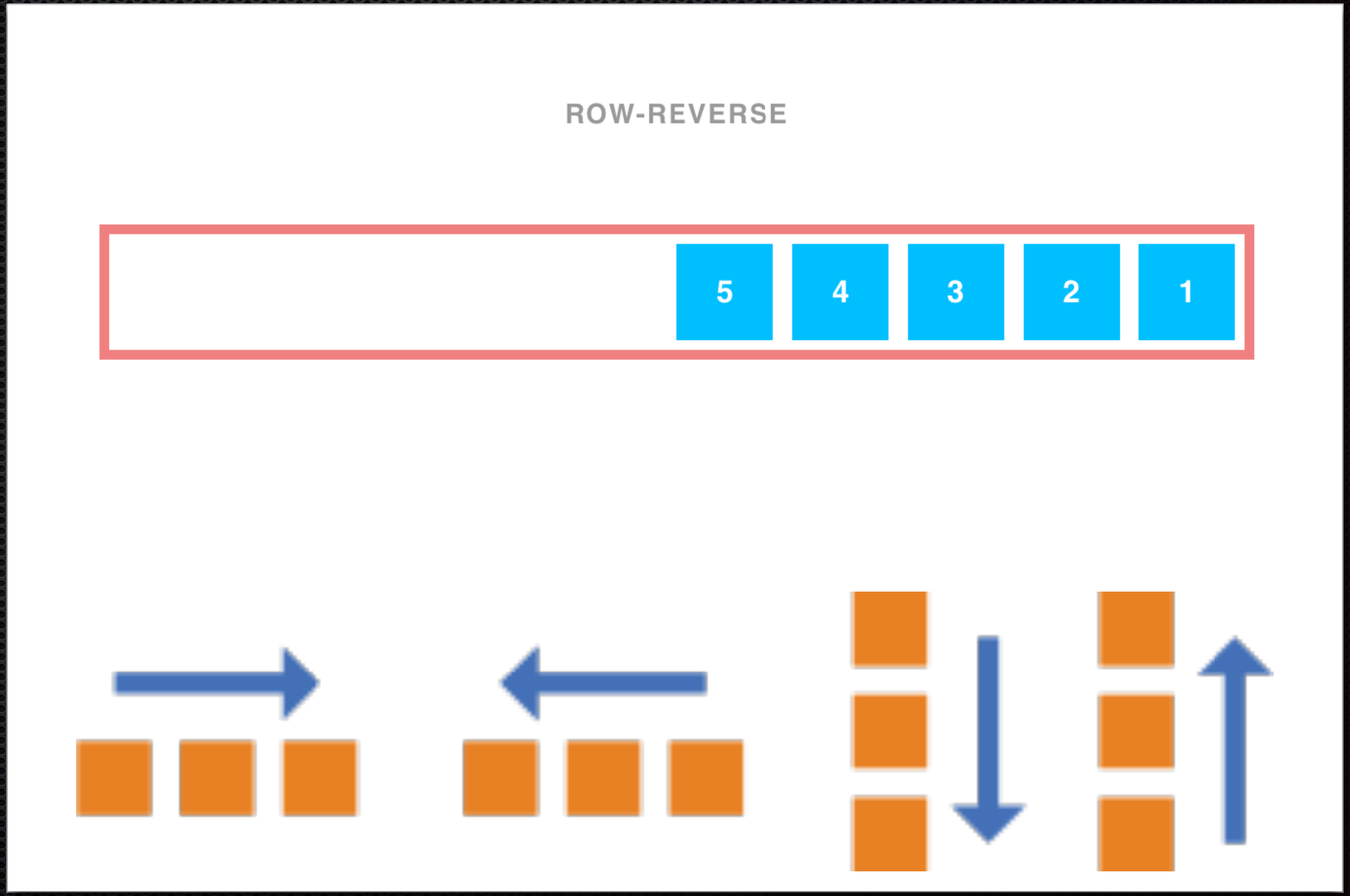
Flexbox

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



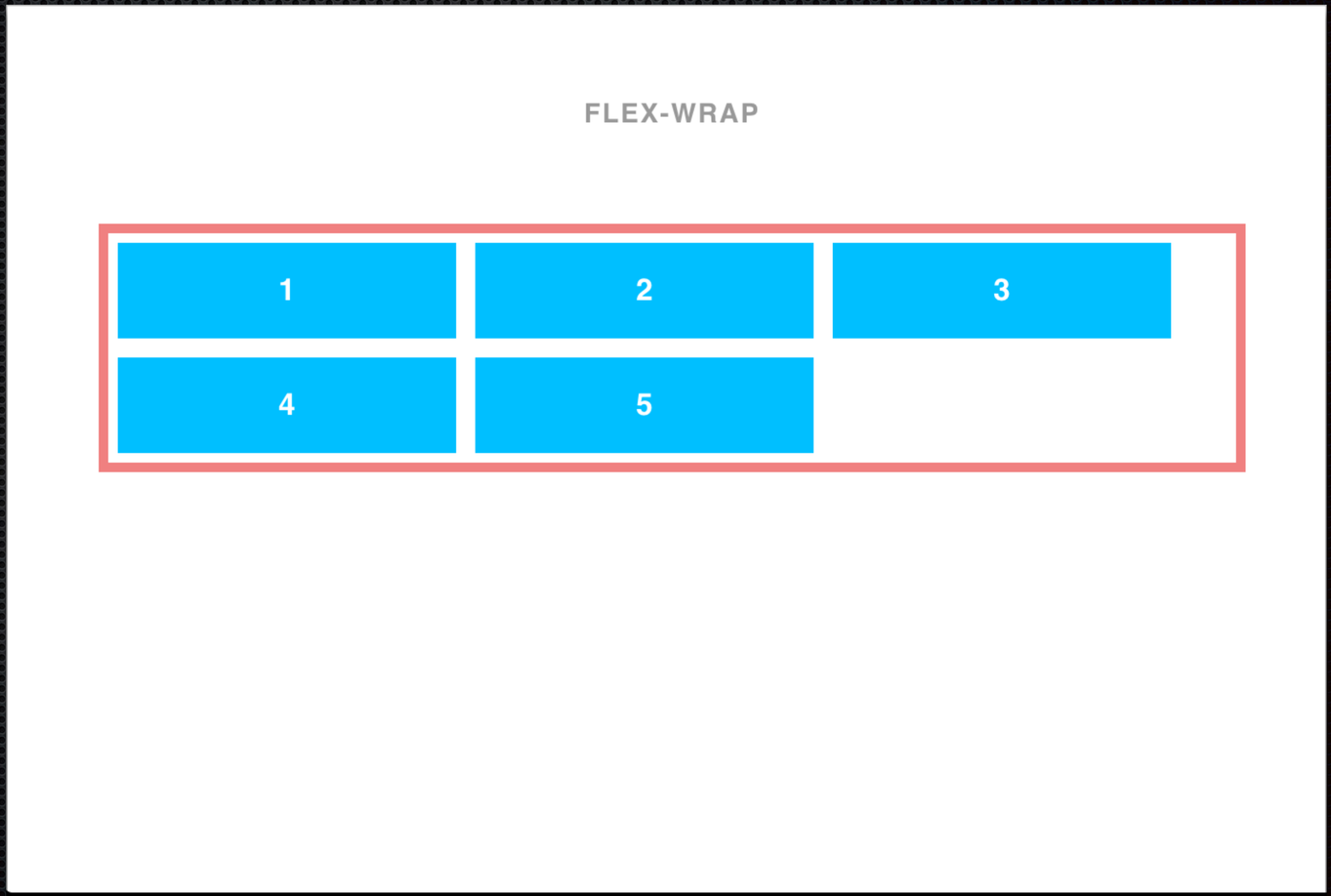
Flexbox

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



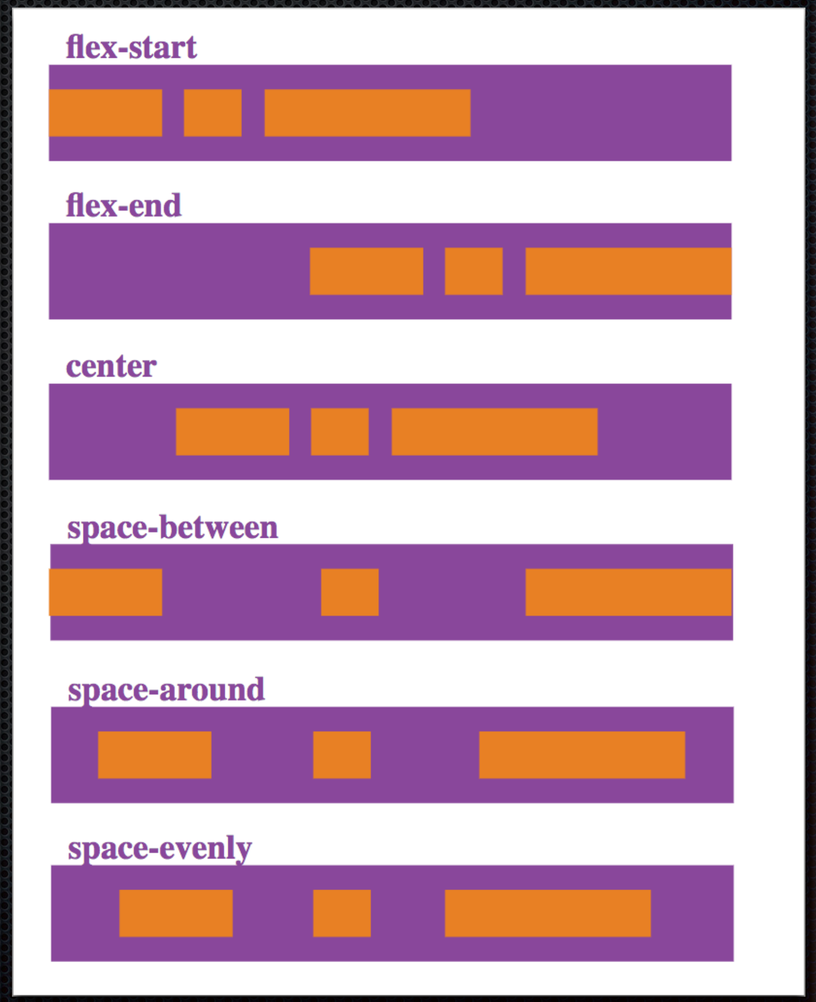
Flexbox

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



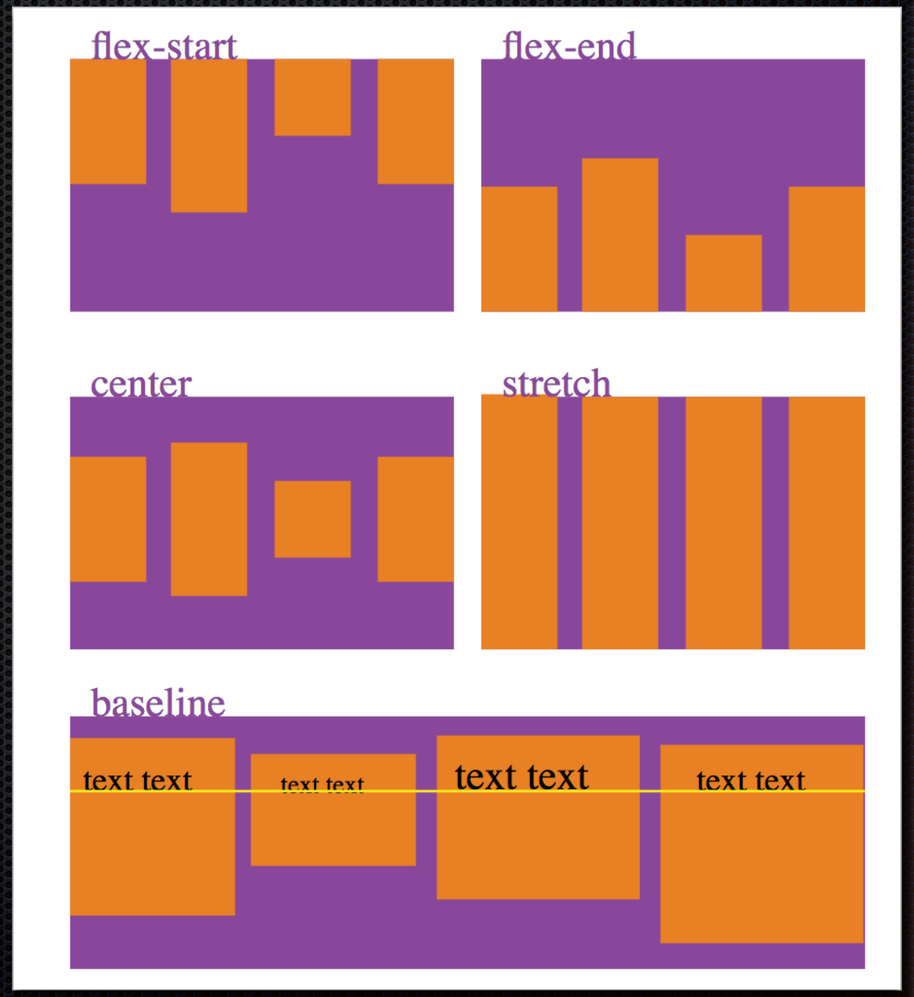
Flexbox

```
.container {
  justify-content:
    flex-start |
    flex-end |
    center |
    space-between |
    space-around |
    space-evenly;
}
```



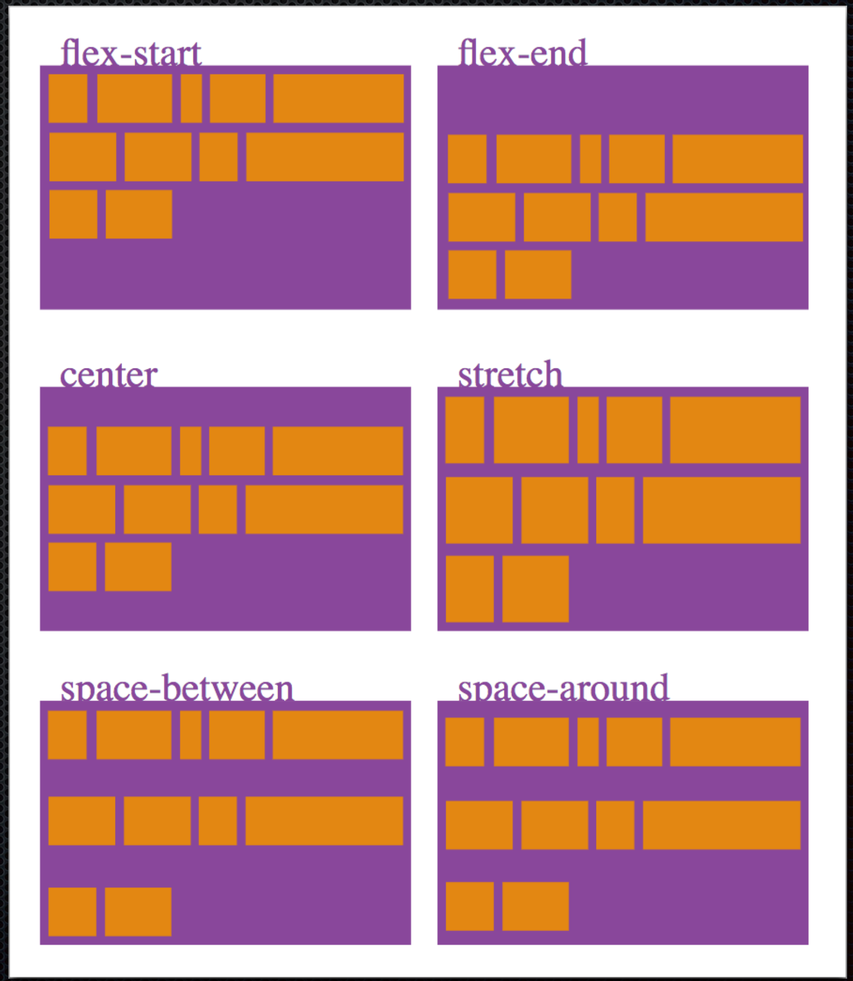
Flexbox

```
.container {
  align-items:
    flex-start |
    flex-end |
    center |
    baseline |
    stretch;
}
```



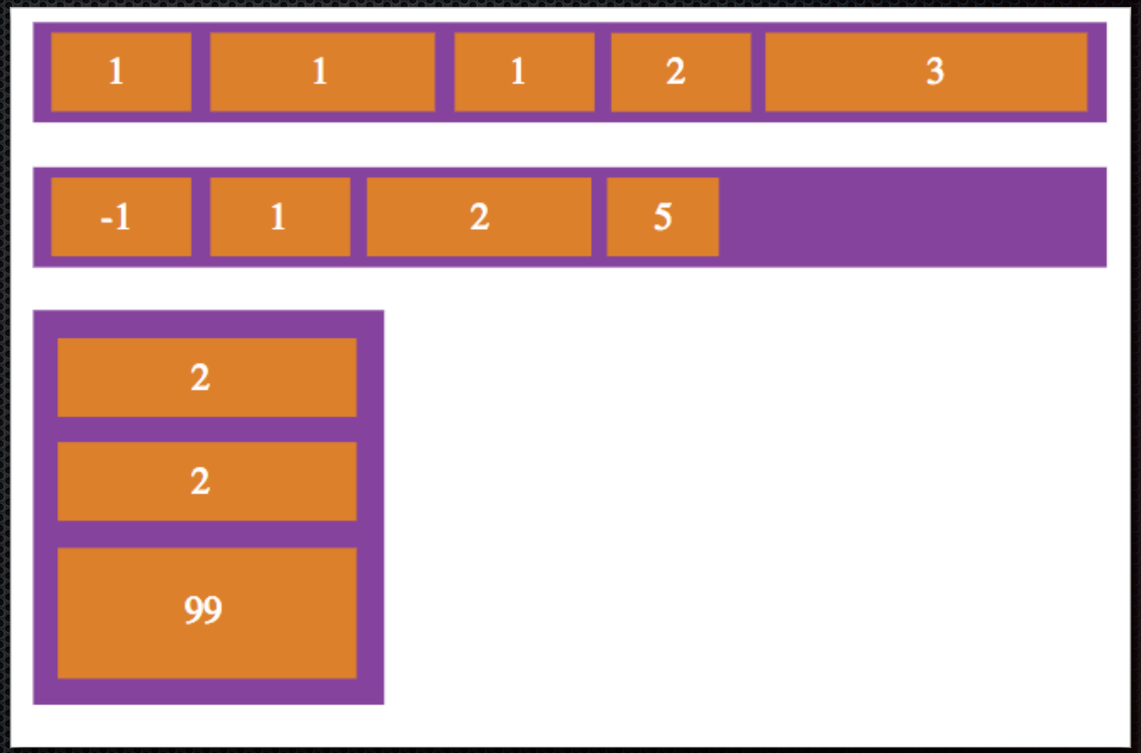
Flexbox

```
.container {
  align-content:
    flex-start |
    flex-end |
    center |
    space-between |
    space-around |
    stretch;
}
```



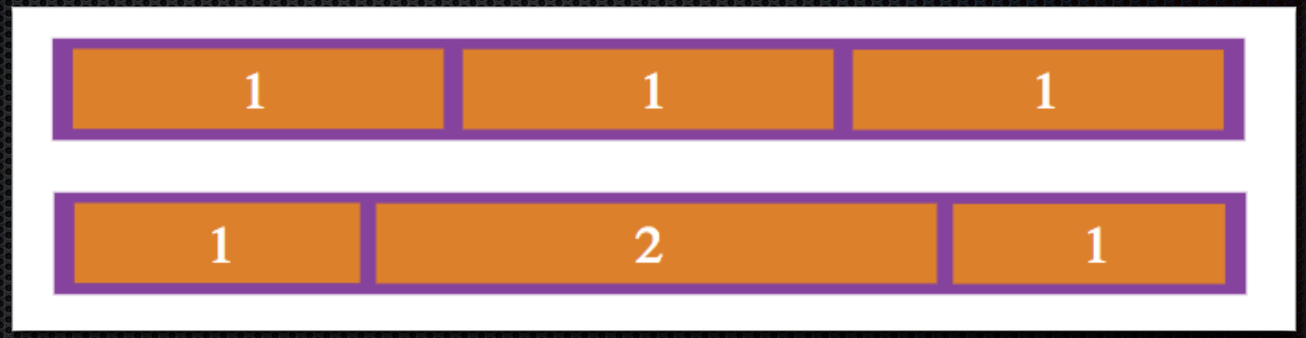
Flexbox

```
.item {
  order: <integer>;
  /* default is 0 */
}
```



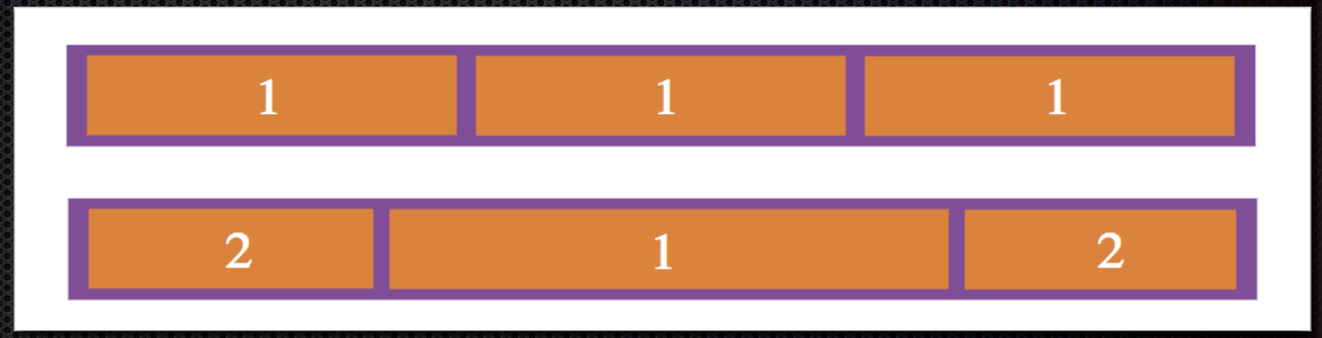
Flexbox

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



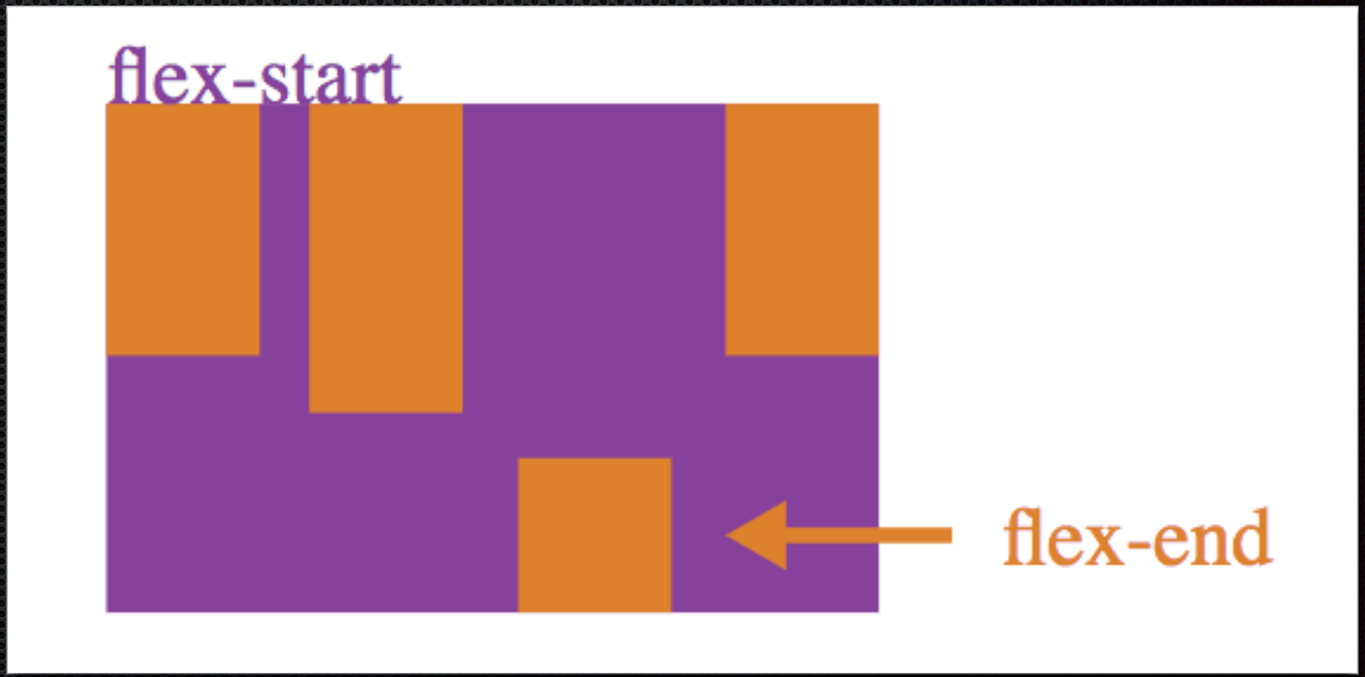
Flexbox

```
.item {
  flex-shrink: <number>;
  /* default 1 */
}
```



Flexbox

```
.item {
  align-self:
    auto |
    flex-start |
    flex-end |
    center |
    baseline |
    stretch;
}
```



Flexbox

- Container
  - flex-direction
  - flex-wrap
  - justify-content
  - align-items
  - align-content
- Items
  - order
  - flex-grow
  - flex-shrink
  - align-self

Agenda

- ✓ Writing Better CSS
- ✓ Media Queries
- ✓ Animations
- > Flexbox
- ☐ Demos

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Demos

ANY
QUESTIONS
?

https://github.com/maxime-tremblay/Kscope18

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