ITMD-361
CLASS 9
OCTOBER 24, 2017

TONIGHT'S AGENDA

- Lab 4
- Continue with CSS layout demos
- CSS Transitions, Transformations, and Animations
- Responsive Design
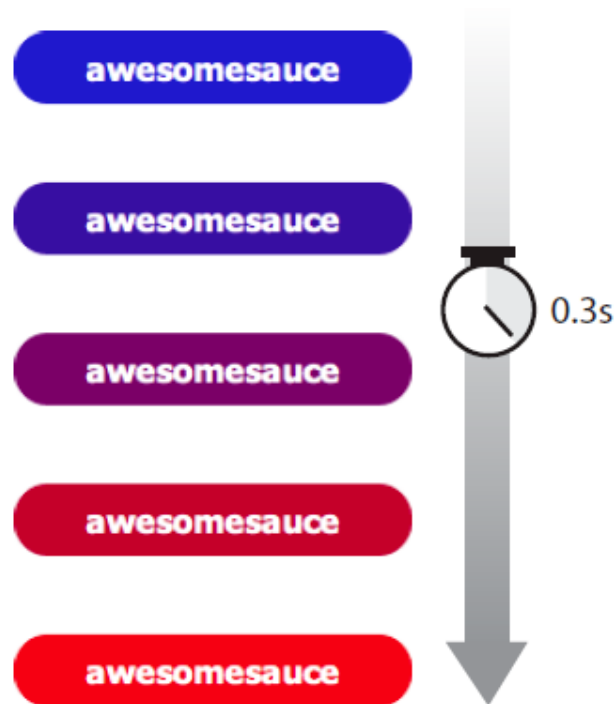- Bootstrap Framework (No…use Foundation)

ITMD-361

CSS LAYOUT DEMOS

CSS TRANSITIONS, TRANSFROMATIONS, AND ANIMATION

TRANSITION BASICS:

"Slowing the change"

TRANSITION BASICS:

- **Target CSS property to change**

  - (transition-property)

- **How long it the transition should take**

  - (transition-duration)

- **The manner in which the transition accelerates**

  - (transition-timing-function)

- **Pause or no pause before it starts**

  - (transition-delay)

TRANSITION BASICS
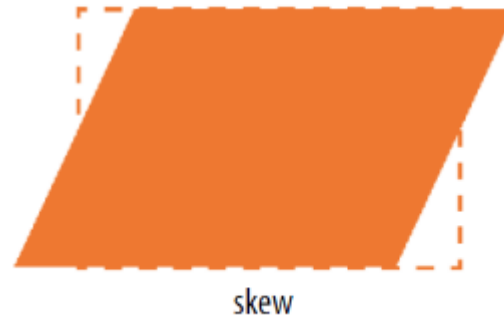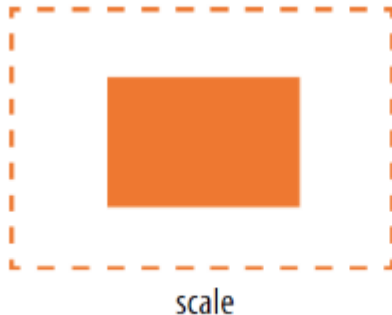
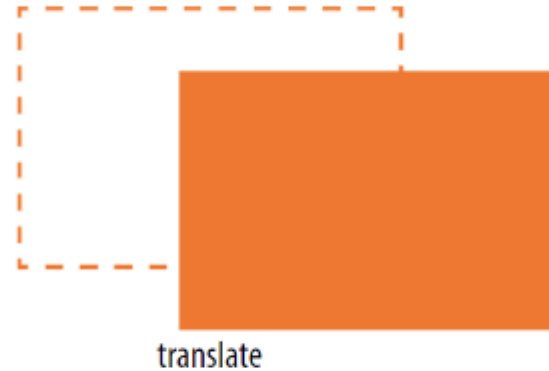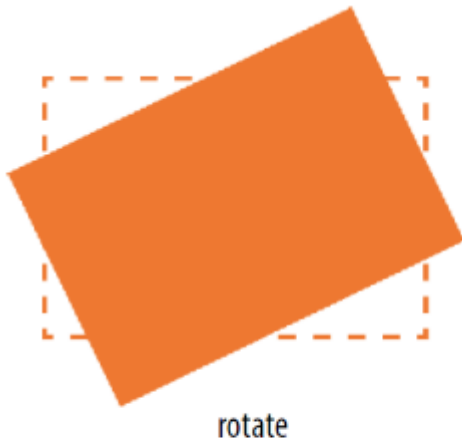- **Mozilla Developer Network: Using CSS Transitions**

- **Transition-timing-function:**

Values: ease | linear | ease-in | ease-out | ease-in-out | step-start | step-end | steps | cubic-bezier(#,#,#,#)

- **See Demo**

TRANSFORM BASICS:

- **Rotate, translate, scale, and skew html**

rotate

translate

scale

skew

TRANSFORM BASICS:

- **Transform MDN**

- **CSS Properties:**
    - transform: rotate (-45deg);
        - Rotates around center axis
    - transform-origin:
        - % | length | left | center | right | top | bottom

transform-origin: center top;

transform-origin: 100% 100%;

transform-origin: 400px 0;

TRANSFORM BASICS:

- "Transforming Position":
  - transform: translateX(50px);
  - transform: translateY(25px);
  - transform: translate(50px, 25px);

- "Transforming Scale, like em":
  - transform: scaleX(1.5);
  - transform: scaleY(2);
  - transform: scale(2, .5);

TRANSFORM BASICS:

- Transforming Skew":
  - transform: skewX(15deg);
  - transform: skewY(30deg);
  - transform: skew(15deg, 30deg);

transform: skewX(15deg);   transform: skewY(30deg);   transform: skew(15deg, 30deg);

ANIMATION BASICS:

```
#magic {
  animation-name: colors;
  animation-duration: 20s;
  animation-timing-function: linear;
  animation-iteration-count: infinite;
  animation-direction: alternate;
}

@keyframes colors {
  0% { background-color: red; }
  20% { background-color: orange; }
  40% { background-color: yellow; }
  60% { background-color: green; }
  80% { background-color: blue; }
  100% { background-color: purple; }
}
```

RESPONSIVE DESIGN

RESPONSIVE DESIGN

- Media Query used to conditionally load styles based on things like screen size

- Style sheet media query format:

```
@media screen and (min-width: 800px) {

CSS Rules Go Here

}
```

- Above rules will only apply to windows 800px or larger.

- Remember, Pixels are not created equally: compare

- Can also load linked stylesheet conditionally.

```
<link href="style.css" rel="stylesheet"
media="screen and (min-width: 800px)">
```

RESPONSIVE DESIGN

- Can also use with the css import directive

    - `@import url("file") screen and (min-width: 800px);`

        - Probably should avoid unless you understand how import works and may impact performance. Concurrent loading is one issue.

        - Google css import to read more.

- [Examples of media queries in use](#)

- [W3 media queries specifications](#)

- [MDN: Using Media Queries](#)

- [Test browser for media query compatibility](#)

- [In depth responsive design website.](#)

FRAMEWORKS

BOOTSTRAP CSS FRAMEWORK

- CSS Framework with built in classes to start from

- Use grid systems to build responsive designs

- **Bootstrap:**

  - You can download other bootstrap themes that modify these styles or override them yourself
  - Created in house at Twitter
  - getbootstrap.com

- **Foundation:**

  - Open sourced
  - Created by ZURB product design
  - My silicon valley peeps say it's overtaken bootstrap
  - foundation.zurb.com

FOUNDATION

- **Based on grid system**

  - 940 pixel wide, flexible grid layout
  - Fully responsive without additional coding!

- **Includes JS plug ins**

  - Uses Jquery

- **Utilizes custom <class>**

  - Use their <class> and get instant css code

- **Compared to Bootstrap:**

  - Foundation is more flexible
  - Smaller library