WEB DESIGN DECAL

LECTURE 6

HTML5 and CSS3

Some more cool HTML and CSS features

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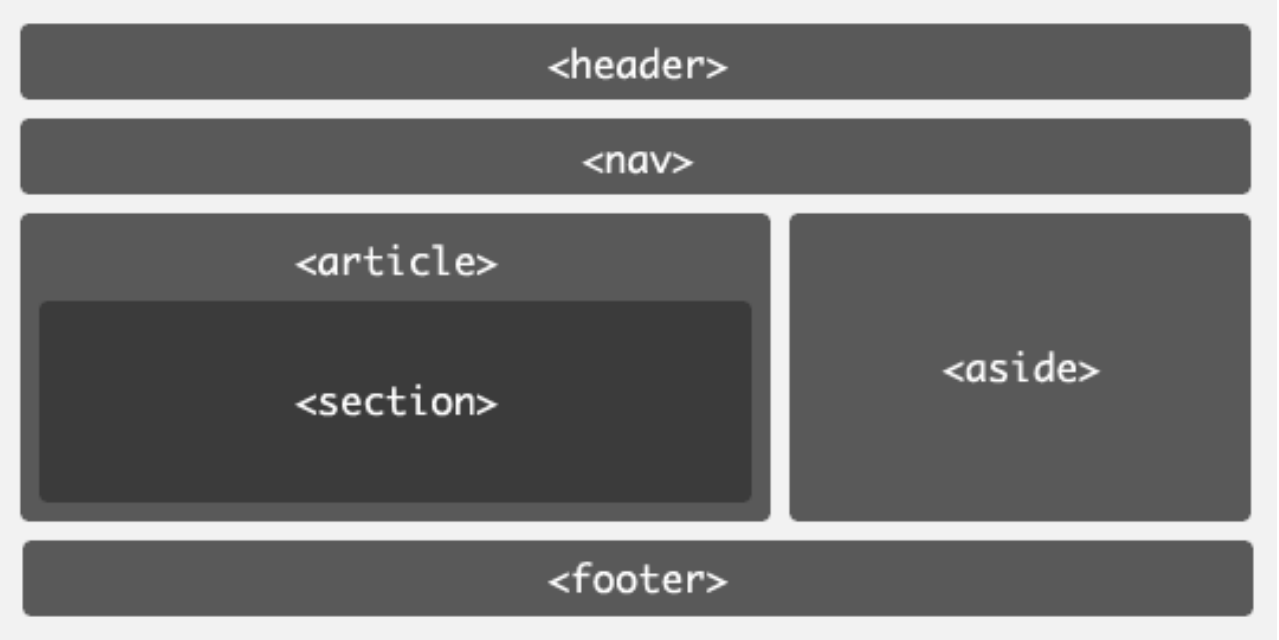
HTML

HTML5

New semantic tags: <header>, <footer>, etc.

Tags for multimedia: <video>, <audio>

Can now draw graphics in a <canvas>



HTML5

Compatible with CSS3

With a pinch of Javascript, can do things like:

- Drag and drop
- Geolocation!

HTML5 - <video>

To showcase non-web-hosted videos, here's a tag for that!

```
<video width="320" height="240" controls>
    <source src="movie.mp4" type="video/mp4">
  Your browser does not support the video tag.
</video>
```

Note, within <video> is an error message for when HTML5 is unsupported!

Airbnb homepage is a great example.

HTML5 - <video>

```
<video width="320" height="240" controls>
    <source src="movie.mp4" type="video/mp4">
  Your browser does not support the video tag.
</video>
```

Other attributes include:

controls (Shows pause, play, volume, etc.)

autoplay

loop

muted

FULL SCREEN VIDEO BACKGROUND DEMO

CSS
3

CSS3

With this version of CSS we get:

- Pseudo-classes
- Animations & 3D Transformations
- Transitions

PSEUDO-CLASSES

define special states for elements

PSEUDO-CLASSES

answer questions like:
“how do I make this change when I hover over it?”

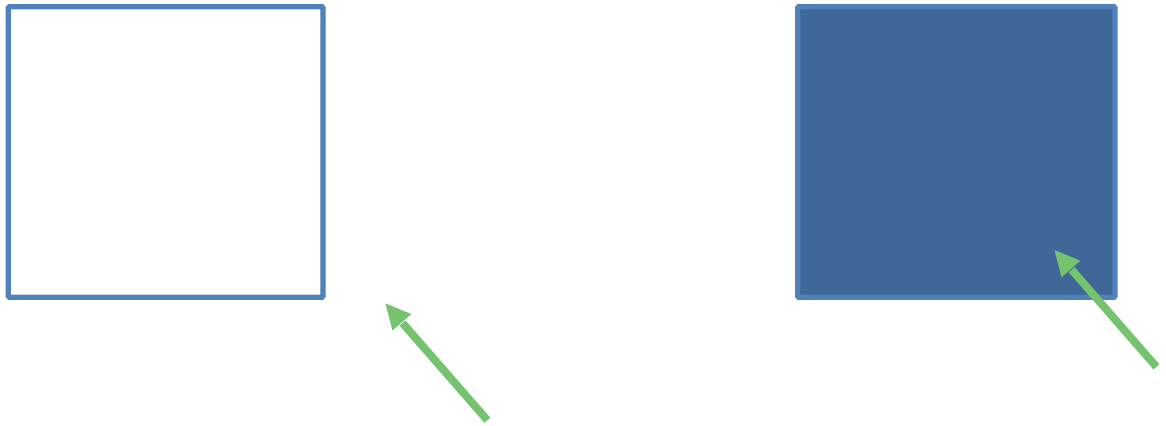
CSS3 - :hover

Add effects based on the “action”

Examples

```
#navbar:hover {
  background: teal;
}
```

CSS3 - Pseudo-classes - :hover



CSS3 - Pseudo-classes

Common pseudo-classes:

:hover = When mouse “hovers” over element
:visited = Links you’ve visited
:active = Links when you click on them (fast)
:focus = When typing in the current <input> tag

Useful for making buttons.

CSS3 - Pseudo-classes - :active & :visited

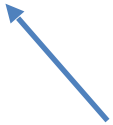
:active (happens quickly)

Click this Link

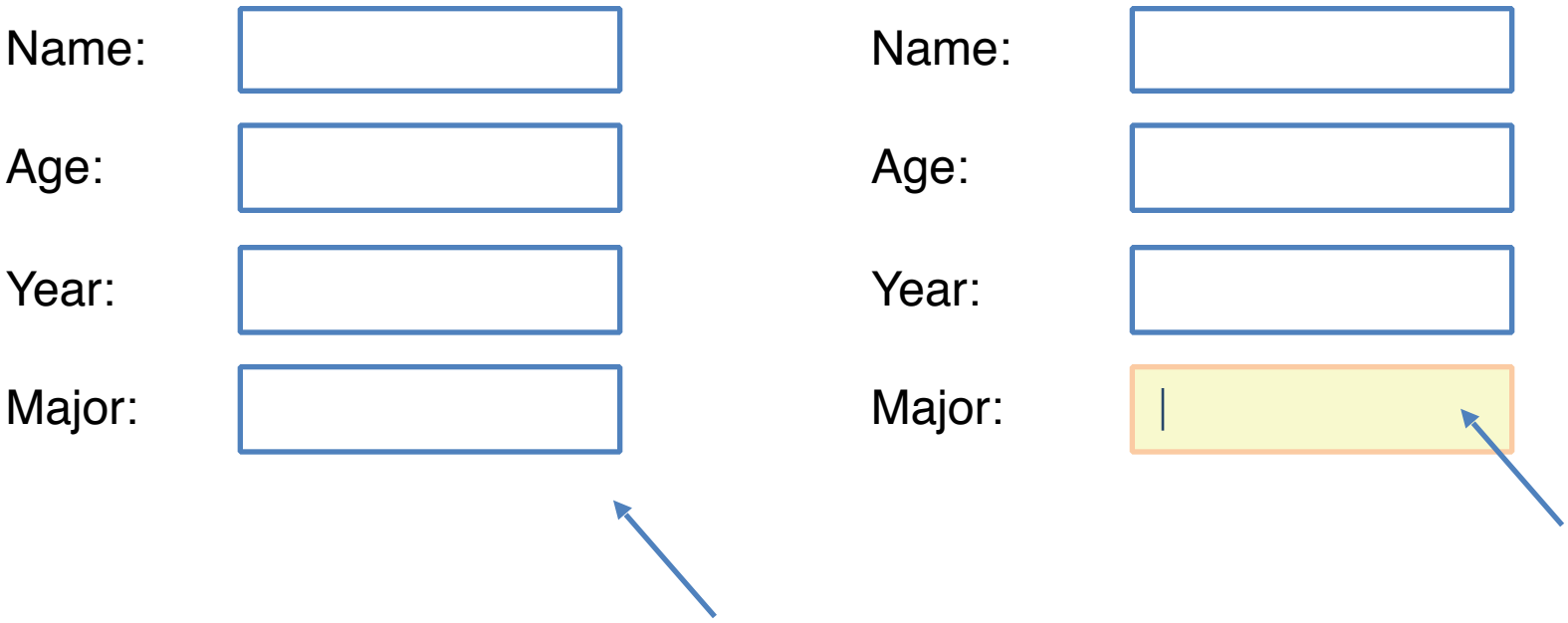
Click this Link

:visited

Click this Link



CSS3 - Pseudo-classes - :focus



TRANSFORMS

answer questions like:
“how do I make this change when I hover over it?”

2D Transformations

Translate:

transform: translate(x-val, y-val);

Ex. transform: translate(10px, 20px);

Rotate:

transform: rotate(45deg);

Scale:

transform: scale(x-times, y-times);

Ex. transform: scale(2, 1.5);

Skew:

transform: skew(x-deg, y-deg);

Ex. transform: skew(10-deg, 40-deg);

3D Transformations

Translate, rotate, scale … but in 3D

Takes in 3 or 4 values now!

```
transform: translate3d(x, y, z);
transform: rotate3d(x, y, z, deg);
transform: scale3d(x, y, z);
```

TRANSITIONS

answer questions like:
“how do I make this change when I hover over it?”

CSS3 - Transitions

Move, scale, and change colors of elements (and more!)

Define the change from state A to state B

Syntax:

```
#box {
  width: 50px;
  height: 50px;
  transition: 0.2s;
}
```

```
#box:hover {
  width: 100px;
  height: 100px;
}
```

TRANSITIONS DEMO

But sometimes, using just “transition” isn’t enough to be compatible!

Browser compatibility

CSS3 led to browsers rendering websites differently
Cross-Browser Compatibility - Developer's worst nightmare

The big 5:

- Google Chrome
- Mozilla Firefox
- Safari by Apple
- Opera
- Internet Explorer (sadly)

Browser compatibility

Browser compatibility

Solution? **Vendor Prefixes.**

Add Vendor Prefixes in front of CSS3 styles (transitions, transforms, box-shadow, etc.)

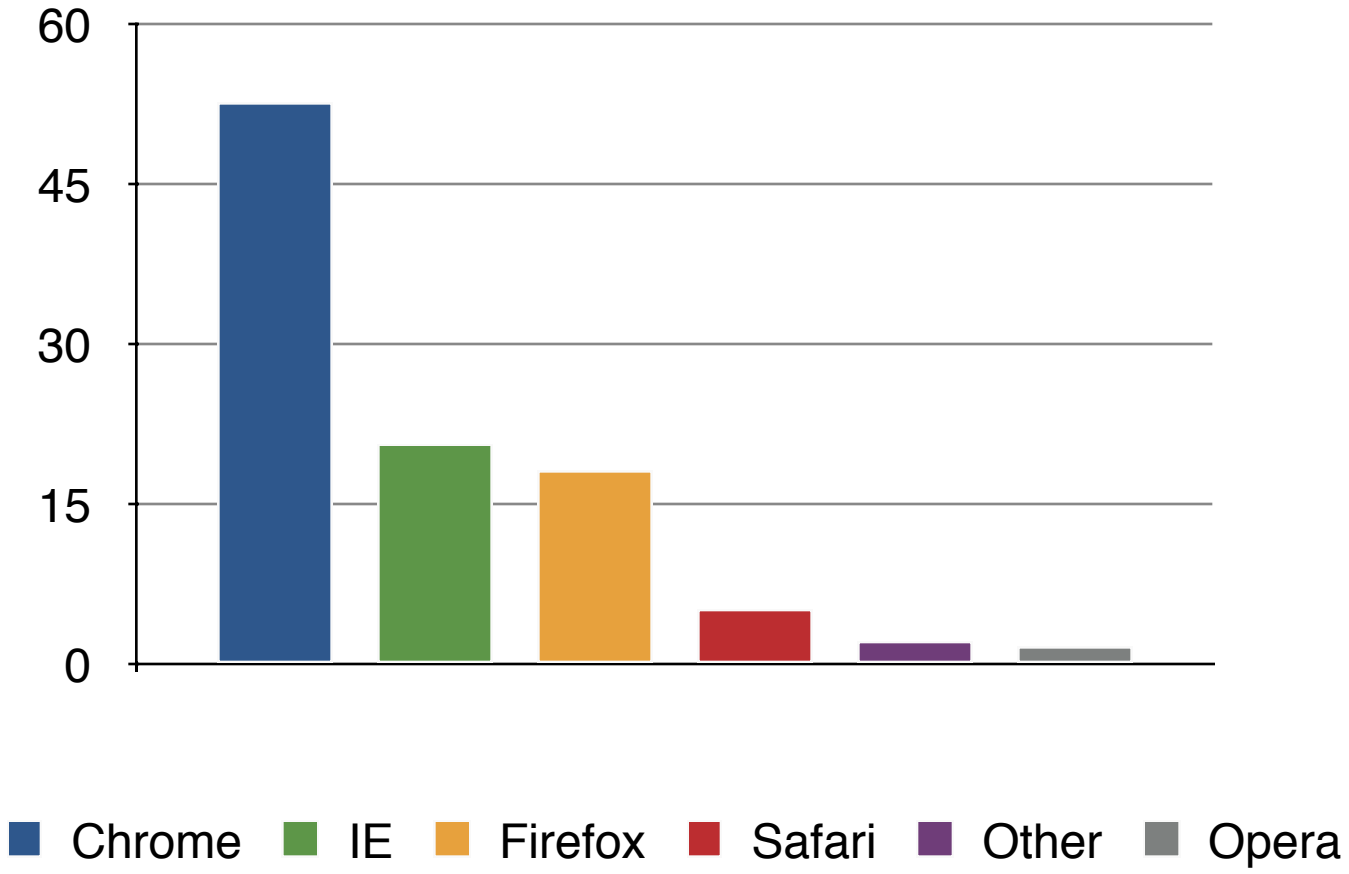
Chrome and now Opera need -webkit-

Ex. -webkit-transform

Firefox needs -moz-

Ex. -moz-transform

Browser compatibility



Questions?

PROTIP

Complete the JavaScript track on Codecademy in your spare time!