Pseudo Classes and Elements

Designing for Consistent Appearance

Pseudo-Classes

- Elements that are dynamically populated or dependent on tree structure
- You have seen this before…

```
a:hover {  }
```

Types of Pseudo-Classes

- Link
  - :link, :visited
- User Action
  - :hover, :active, :focus
- Forms (interfaces)
  - :enabled, :checked, :disabled

Types of Pseudo-Classes

- **Structural/Positional**
  - :first-child, :last-child, :nth-child(), :only-child
  - :first-of-type, :last-of-type, :only-of-type

```
li:first-child{   }
li:nth-child(4){   }
p:empty{   }
img:only-of-type{   }
p:last-of-type{   }
```

Pseudo-Elements

- These elements aren’t part of the DOM
- Can be used to style specific (unique) parts of the page

Types of Pseudo-Elements

- Textual
  - :first-letter, :first-line
- Positional/Generated
  - :before, :after
- Fragments
  - ::selection

Review

- Pseudo-elements and classes are just one more way to add style to your page
- I haven’t covered every combination so make sure to do some investigation on your own

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School of Information

Transitions

Transitions

- When elements transition from one state to another, you can alter their appearance
  - If you hover over the link, change the color
  - If an image comes into focus, change the size

The Properties

- transition-property
  - What is it you want to change? (size, color, position, etc.)
- transition-duration
  - How long should each transition last?
- transition-timing
  - Should it be a smooth transition (linear)? Or different?
- transition-delay
  - How long should the wait be before the transition begins?

Setting up

1. Define your element
2. Choose the elements for transition
3. Define the new values
    - ○ You must combine this step with a pseudo-class

Example (CSS3-transitions)

```
div{
    color: #000000;
    background: #2db34a;
    line-height: 200px;
    text-align: center;
    width:250px;
    height: 200px;
    border-radius: 6px;
}
```

Example (CSS3-transitions)

```
div{
    color: #000000;
    background: #2db34a;
    line-height: 200px;
    text-align: center;
    width:250px;
    height: 200px;
    border-radius: 6px;
    transition-property:color,width,background,border-radius;
    transition-duration: .5s;
    transition-timing-function: liner;
    transition-delay: .5s;
}
```

Example (CSS3-transitions)

```
div:hover{
    color: #ffffff;
    width: 350px;
    background: #2D31B3;
    border-radius: 50%;
}
```

Using Shorthands

- If you have multiple properties transitioning, you can use shorthand:

```
transition: background .2s linear, border-radius
          1s ease-in 1s;
```

Review

Transforms

Transforms

- Provide option for changing the appearance of elements
- Two-dimensional
- Three-dimensional

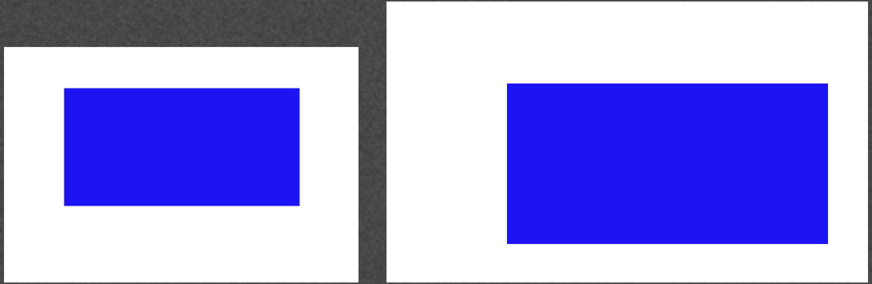
2D Transform Options

- Options
    - translate
    - rotate
    - scale
    - skew
    - matrix

translate

- transform:translate(x, y);
  - move x pixels to the left/right and y pixel up/down

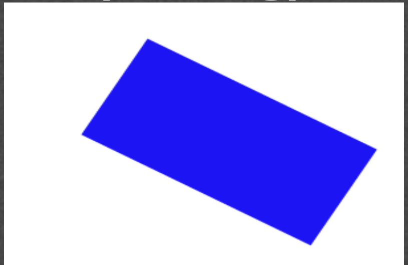
transform:translate(100, 75);

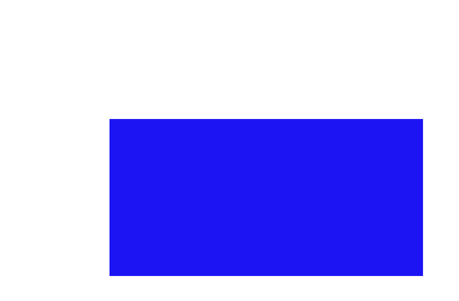


rotate

- transform:rotate(deg);
  - Rotate/”spin” the element a certain number of degrees

transform:rotate(30deg);

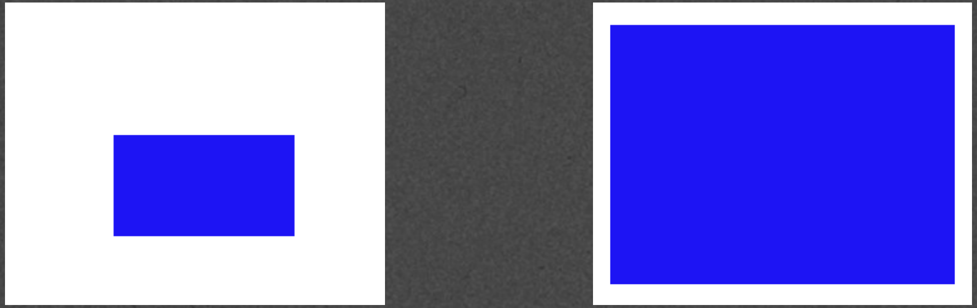




scale

- transform:scale(width, height);
    - Change the width and height of the element

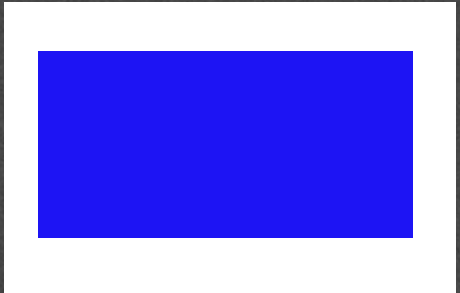
```
transform:scale(2,3);
```

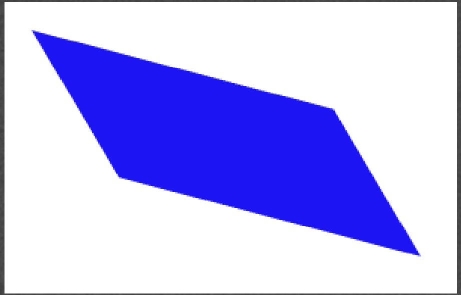


skew

- transform:skew(x-angle, y-angle);
  - Rotate the element a certain number of degrees along the x and y axis

transform:skew(30deg, 15deg)





matrix

- matrix() - combines all of the 2D transform methods into one

3D rotate

- You can rotate along the x, y, or z dimension along a given degree
- transform:rotateY(deg)
- transform:rotateX(deg)
- transform:rotateZ(deg)
- transform:rotate3d(x, y, z)

Others

- 3D scale
- 3D translate

Review

- Transforms are one more way to modify the look of your page.
- Often combined with state changes
- Will typically require browser prefixes.

Accessible Navigation

Navigation

- Navigation is a critical aspect of accessibility
- Sighted users have tried and true visual cues to orient them on a page
  - Banner
  - Search box
  - Main navigation box
  - Content well
- Blind and low-vision users rely on proper coding of page for orientation

What if you can’t see?

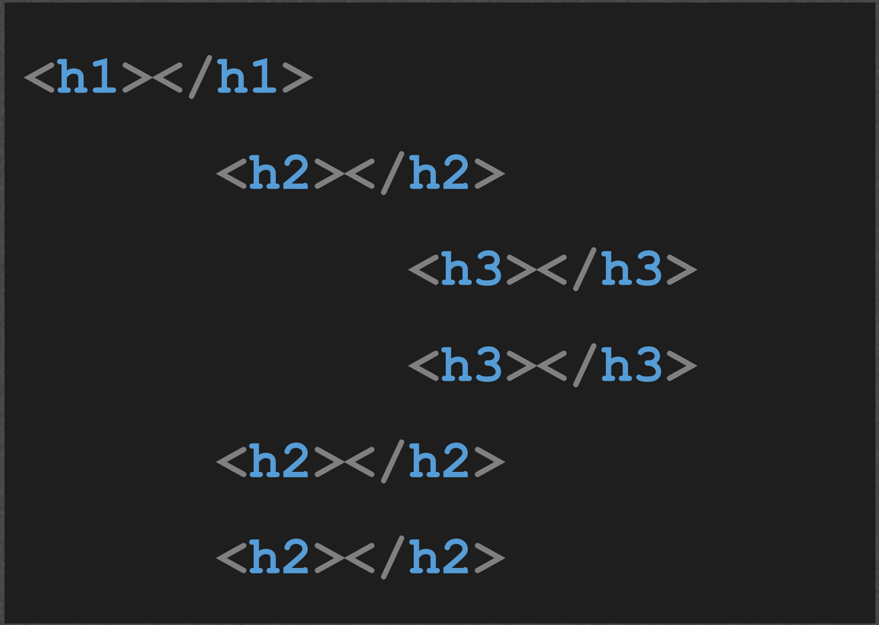
- Title of page lets you know what page you’re on when page loads
- Proper heading placement and hierarchy conveys organization of page and allows SR users to skip navigation
- Link descriptions convey content of page and organization of site

Proper <h1> heading

- Screen readers can find and list headings
- <h1> heading uniquely identifies the page in the website
- Should be placed directly in front of the main content of the page
- The <h1> header should also match at least a subset of the the page <title>

Proper heading hierarchy

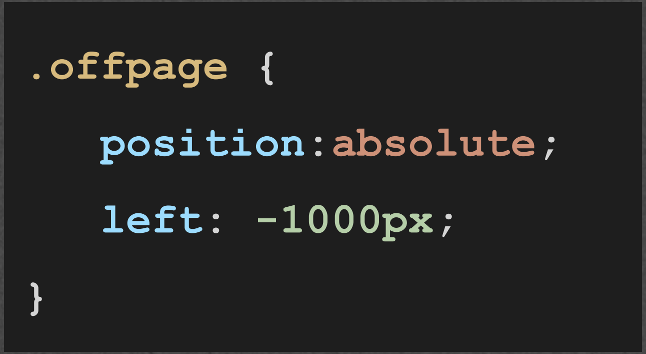
- Headings need to be properly nested to convey organization of the page
- <h2> tags follow the <h1> tag, the <h3> tags follow the <h2> tags, etc.



```
<h1></h1>
      <h2></h2>
            <h3></h3>
            <h3></h3>
      <h2></h2>
      <h2></h2>
```

Off-page headings

- Useful when you want to give SR users a navigational aid without cluttering presentation
- Use CSS to position headings off-page



```
.offpage {
   position:absolute;
   left: -1000px;
}
```

- Don’t use {display: none} or {visibility: hidden}

Meaningful link text

- Screen readers can find and list links
- Descriptions for the links must be meaningful out of context, via tabbing or presented in a list
- Don’t use “here”, “click here”, “read this”, and “more”
- Don’t use URL as a link description—will sound like gibberish, unless very short and intuitive

Review

- How easy is it to navigate your page?
- What would happen if the colors weren’t there?
- What would happen if you couldn’t use a mouse?
- Plan for everyone

Final Project

Objective

- Create your own unique site.
- Create a stylesheet that will be used by three different html files.

Getting Started

- Using Homework Two as a starting point, or developing something completely from scratch create a three page site with your own HTML.
- Validate your html pages using the w3validator.

Goal

[Sample Site]

Peer grading

- Follow the written specifications.
- Grades will be based on level of completion.
- You can specify your preferred screen size for grading.
- Proper standards do apply – make sure everything passes the validators.

Have Fun!

- Don't aim for perfection, demonstrate growth.
- There is always more that you can do to style your site, that doesn't mean you should do it.
- Utilize Inspect Element!

Closing

Congratulations

- You have come a long way from the plain pages we began with!

What next?

- Consider creating your own site
- Continue to practice your skills
    - You are ready to join a Meet Up, or offer your skills as a TA at workshops.
- Begin to learn about using JavaScript to add interactive elements to your site
- Learn more about Responsive Design

Thank you!