- **Style Sheets and HTML**
- **Style Rule Cascading and Inheritance**
  - a) **Rule Cascading**
  - b) **Style Inheritance**

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- **External style sheets:** There are two ways to refer to an external style sheet from within the XHTML document:

  ✓The **link** element

```
<head>
<link rel="stylesheet" href="/path/stylesheet.css" type="text/css" />
<title>Titles are required.</title>
</head>
```

  ✓The **@import** rule.

```
<head>
<style type="text/css">
   @import url("http://path/stylesheet.css");
   p { font-face: Verdana;}
</style>
<title>Titles are required.</title>
</head>
```

Style Sheets and HTML:
Attaching the styles to the document

- **Embedded style sheets:** It is placed in a document using the **style** element and its rules apply only to that document.

```
<head>
    <title>Required document title here</title>
    <style type="text/css">
     /* style rules go here */
    </style>
</head>
```

- **Inline styles:** We can apply properties and values to a single element using the **style** attribute in the element itself

```
<h1 style="color: red">Introduction</h1>
```

- External style sheets: Use link element

CSS Rule Cascade

- What if more than one style declaration applies to a property of an element?

```
* { font-weight:bold }
#p3 { font-weight:normal }
```

- The CSS rule cascade determines which style rule's declaration applies

CSS Rule Cascade

Style Sheet Hierarchy

Style information can come from various sources, listed here from general to specific. Items lower in the list will override items above them:

- Browser default settings
- User style settings (set in a browser as a "reader style sheet")
- Linked external style sheet (added with the **link** element)
- Imported style sheets (added with the **@import** function)
- Embedded style sheets (added with the **style** element)
- Inline style information (added with the **style** attribute in an opening tag)
- Any style rule marked **!important** by the author
- Any style rule marked **!important** by the reader (user)

CSS Rule Cascade

- User can define a style sheet in 2 ways
  - Explicitly (create a css file and place in certain browser directory)
  - Implicitly (Edit|Preferences|Appearance)
- User/important highest priority in CSS2 to accommodate users with special needs(visually impaired)
  - Rules made important by adding weight value "!important": otherwise weight value is normal

p {color: blue !important}

CSS Rule Cascade

Alternative Style Sheets

Select style sheets and insert rules for HTML attributes

⬇

Prioritize declarations by origin and weight

⬇

Break ties based on specificity (style attribute or most specific selector)

⬇

Break ties based on position within style sheet (last occurring wins)

Steps in CSS cascade

Specificity(highest to lowest):
1. style attribute
2. rule with selector:
   1. ID
   2. class/pseudo-class
   3. descendant/element type
   4. universal
3. HTML attribute

The *origin* of a style sheet declaration has to do with who wrote the declaration:

1. Author 2. User agent 3. User

Priority(from high to low) as follows:

1. Important declaration with user origin

2. Important declaration with author origin

3. Normal declaration with author origin

4. Normal declaration with user origin
5. Any declaration with user agent origin

imp1.css contains the statements
@import url("imp2.css");
p { color:green }
and the file imp2.css contains the statement
p { color:blue }

then the style rulesets are effectively in the order
p { color:red }
p { color:blue }
p { color:green }
p { color:yellow }

```
<title>StyleRuleOrder</title>
<style type="text/css">
        p { color:red }
</style>
<link rel="stylesheet" type="text/css" href="imp1.css" />
 <style type="text/css">
    p { color:yellow }
</style>
```

CSS Inheritance

- Inheritance is based on the tree structure of the document itself.

- An element *inherits* a value for one of its properties by checking to see if its parent element in the document has a value for that property, and if so, inheriting the parent's value.

- If no ancestor element has a value for the property, then CSS specification gives value known as the property's *initial value*.
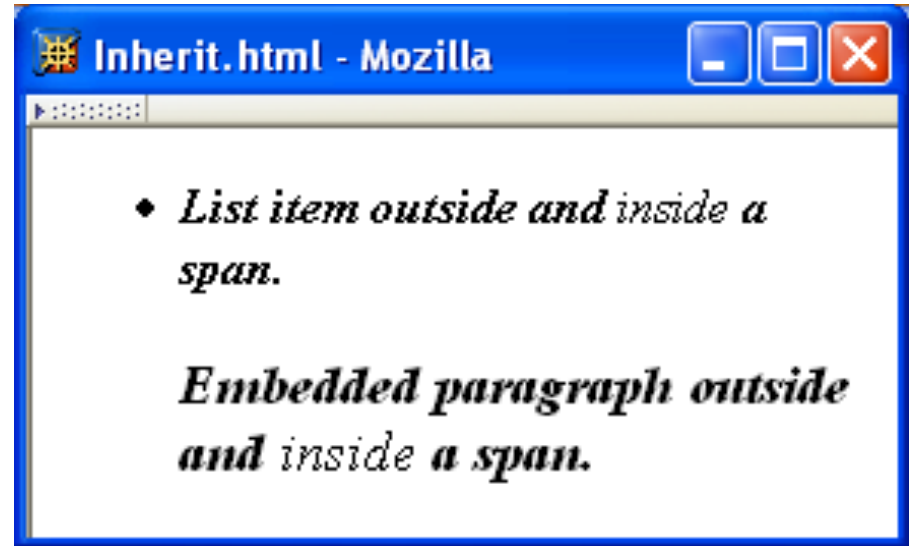
CSS Inheritance

```
body { font-weight:bold }
li { font-style:italic }
p { font-size:larger }
span { font-weight:normal }
```


Inherit.html - Mozilla

• *List item outside and* inside *a span.*

Embedded paragraph outside and inside ***a span.***

```
<body>
  <ul>
    <li>
      List item outside and <span>inside</span> a span.
      <p>
        Embedded paragraph outside and <span>inside</span> a span.
      </p>
    </li>
  </ul>
</body>
```

CSS Inheritance

- While many CSS properties are inheritable, the *height* property is not inherited from its parent.

- The value contained in a style declaration for a property is known as *the specified value* for the property.

- This value can be either *relative value*(Ex: font-size:larger) or *absolute value*(Ex: 13px)

Thank You