3.1 Understanding The Web – HTML, CSS, JS

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HTML at work, and some consequences

This is the top-level heading

This is a paragraph. It can contain *further markup* and also more complex content.

Sometimes you'll see *semantic* tags, like "aside", "header",

On the web, text is “Marked up”

```
<h1>This is a top-level heading</h1>
<p>
    This is a paragraph. It can conta
    <a href="http:/some.where.com">mo
</p>
<aside>
    Sometimes you'll see <i>semantic<
    "header", "footer", "article", or
```

- Programs can scan this text, interpret it…
- then treat it as *data* which can be combined, analyzed, etc.

Three Levels

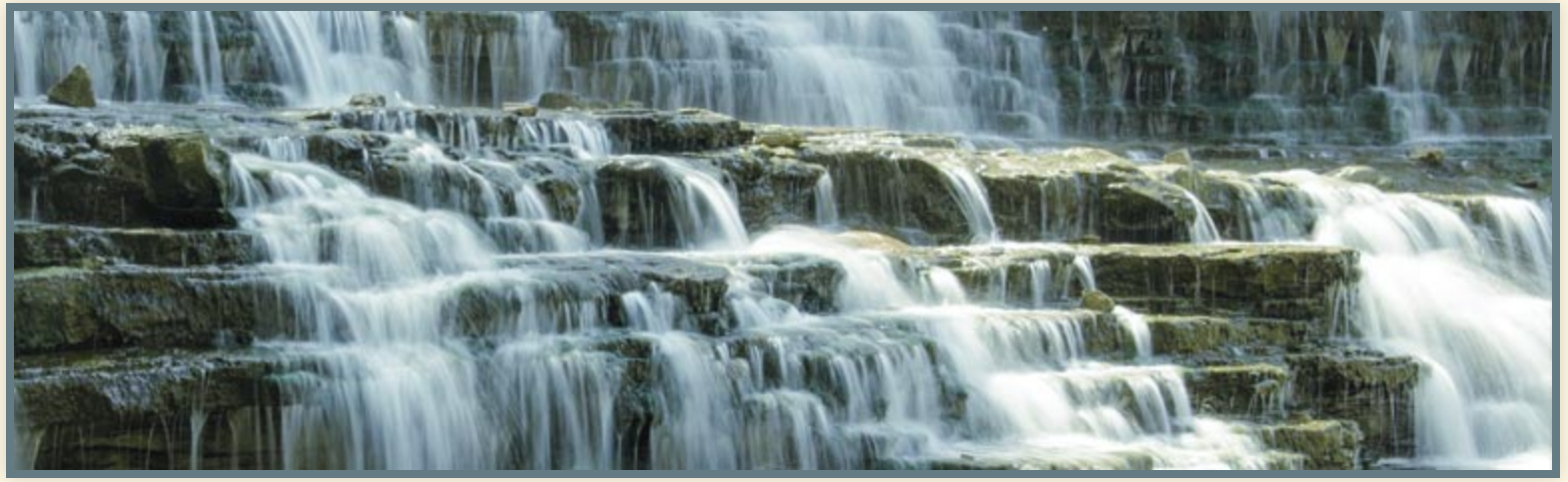
- HTML for **structure/content**;
- CSS for **presentation**
- JS for **dynamic changes** and **rendering remote data**

Tag Anatomy

- opening and closing **tags** around **content**
- “attributes” can affect how the browser displays and interprets the tag
- the only attribute that really matters for us in this exercise is
- `class="list of classnames"`

CSS Basics

- “Cascading Style Sheets”
- Style sheet
- that “cascades” = overrides prior values



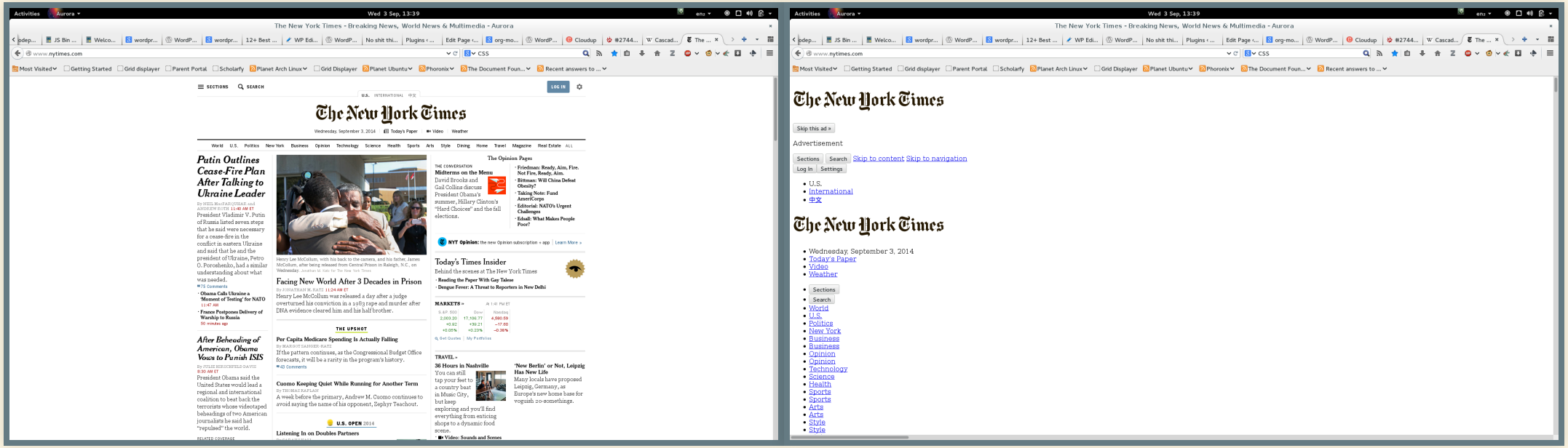
CSS Anatomy

```
h1 {
    color:blue;
    font-family:serif;
    font-size:24px;
}

div {
    border: 1px solid black;
}

div.main p {
    color:red;
}

#specialid {
    float:left;
}
```

When you look at a CSS file, you will see it is divided into a bunch of stanzas, like this. Each of these stanzas is called a "selector statement": They all follow the same pattern:

- first, a **selector** that identifies the elements to which these instructions will apply

With and without CSS



JavaScript

- add dynamic transformations
- as in e.g. this silly example: https://developer.mozilla.org/en-US/docs/Learn/JavaScript/First_steps/What_is_JavaScript#A_high_level_definition
- **we are not really learning to program in this class**
- but **it helps to be aware of JS** and we will fool around with it during class

Learning More

The Mozilla Developers' Network Is the best place to learn about web technologies, though there are lots of other resources too!

- Check out the "Complete Beginners" Sequence here
- Teach yourself HTML here
- Get started with CSS here
- The JavaScript page of the "Complete Beginners" course is a really good place to start learning JS
- Afterwards you can check out the JS sequence