

Scripting for Multimedia

LECTURE 8: THINKING HTML5 SEMANTICS

Why semantic markup?

- The `<div>` element is the all-purpose tool to position elements and has little meaning
- `<div>` elements are used for page layout
 - The developer usually provides the meaning of `<div>` based on its id or CSS class

Browser support for HTML5

- Many machines read your HTML source
- Nonvisual Desktop Access (NVDA) devices provide an alter means of viewing, reading, and processing webpages

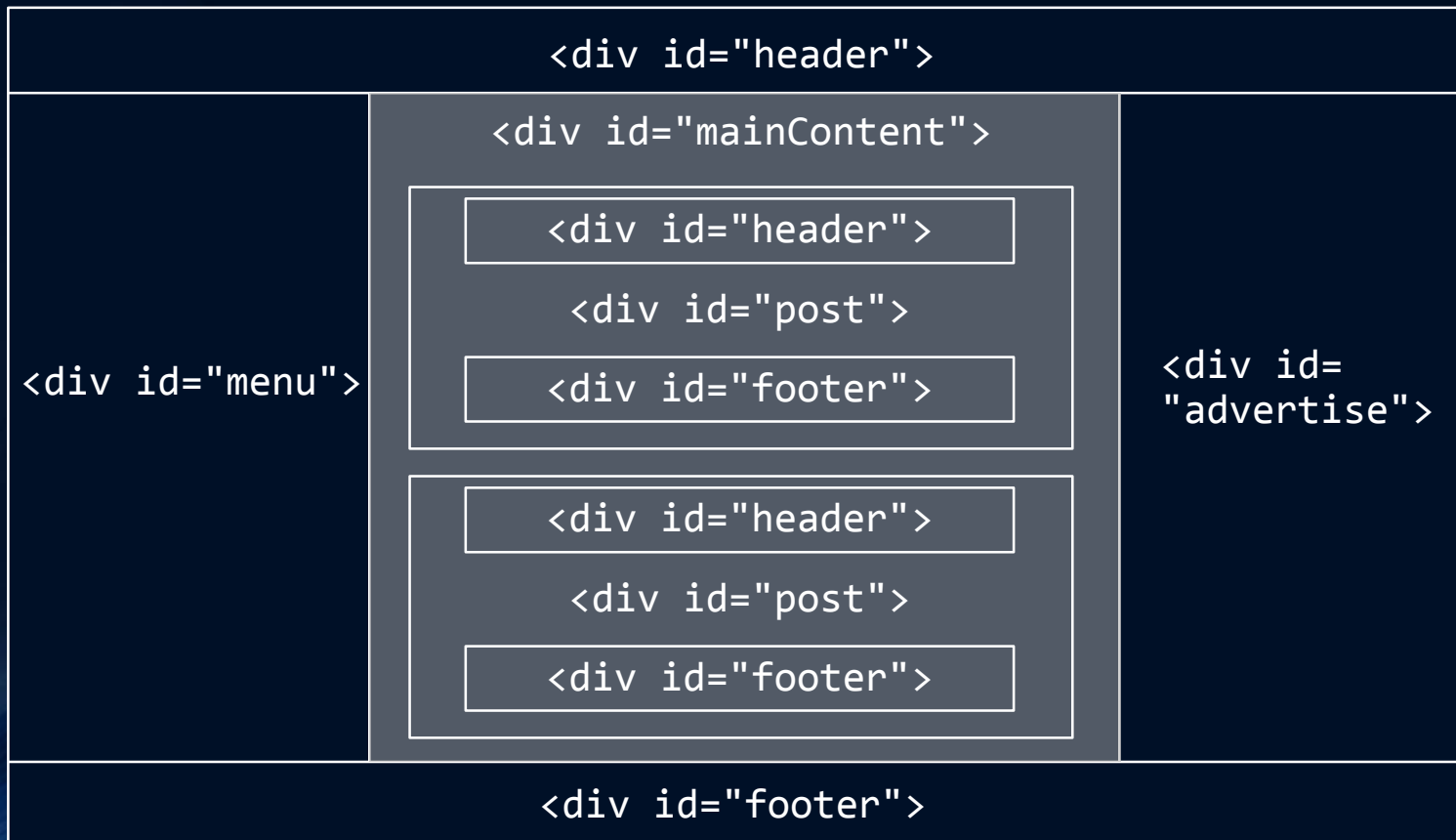


Creating semantic HTML5 documents

- Use semantics carefully so you use an element only for its intended purpose
 - For a custom element, use the `<div>` or `` tag and add a class name or id

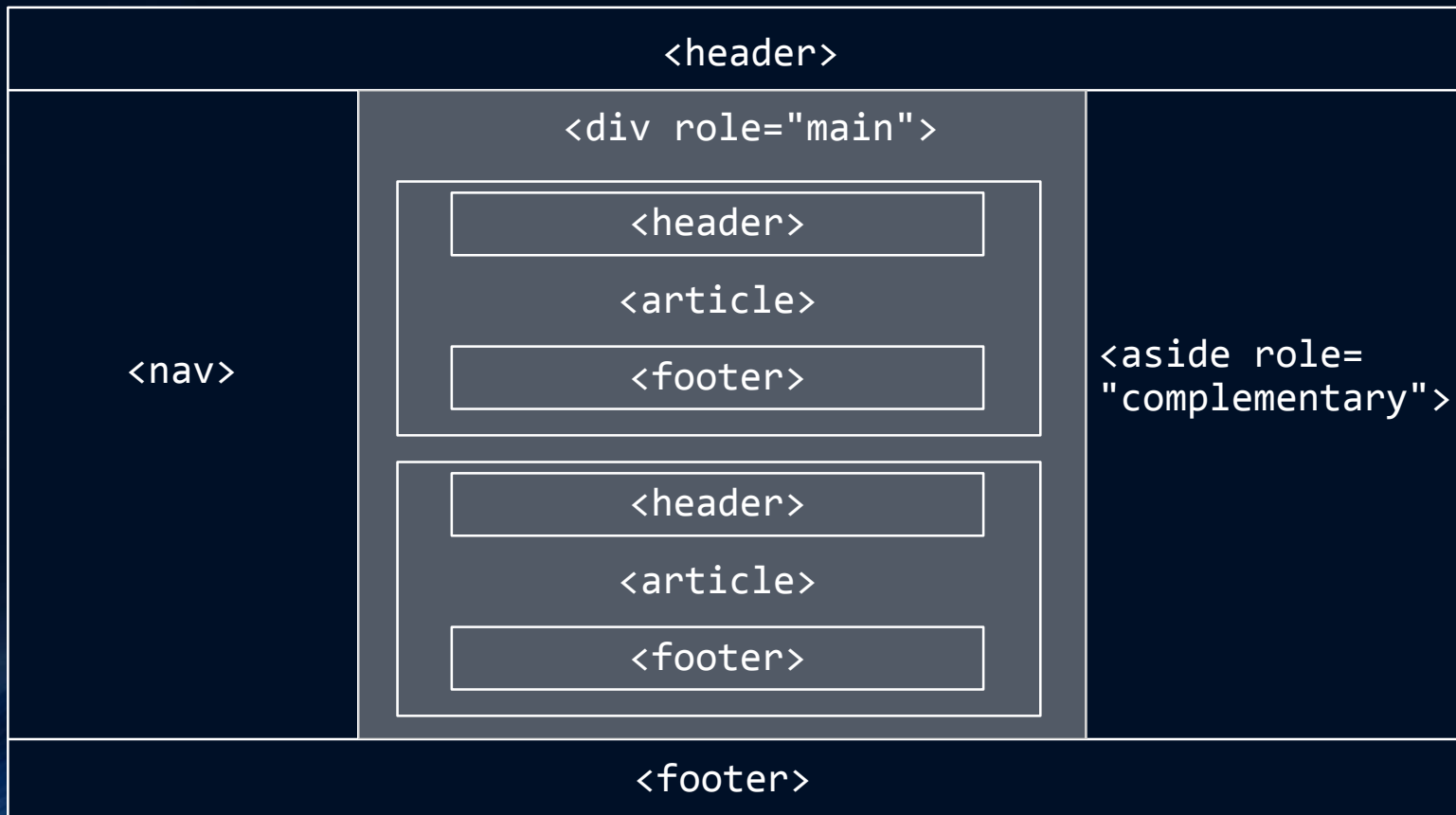
Creating an HTML5 layout container

- A blog site layout container using `<div>` elements



Creating an HTML5 layout container

- Blog layout container using the new HTML5 element



Creating an HTML5 layout container

- The **<header>** element

- Don't confuse `<header>` in HTML5 with `<head>` in HTML
 - `<header>` is within a `<body>` element and visible
 - `<head>` is invisible
- `<header>` should contain `<h1>` to `<h6>`
 - You can also have some other content like company logos and navigational links

```
<header>  
  <h1>Contoso Ltd.</h1>  
    
  <p>Other supplementary information</p>  
</header>
```

- You can have multiple `<header>` elements



Creating an HTML5 layout container

- **<hgroup>** groups one or more <hn> elements

```
<header>
```

```
  <hgroup>Contoso Ltd.
```

```
    <h1>Primary Header</h1>
```

```
    <h2>Secondary Header</h2>
```

```
  </hgroup>
```

```
  
```

```
</header>
```



Creating an HTML5 layout container

- The `<header>` element
 - By default, the `<header>` on some browsers does not render as a rectangular block as `<div>`. You can add the style rule `header { display: block; }`
 - A `<header>` cannot be nested inside another `<header>`

Creating an HTML5 layout container

- The `<footer>` element

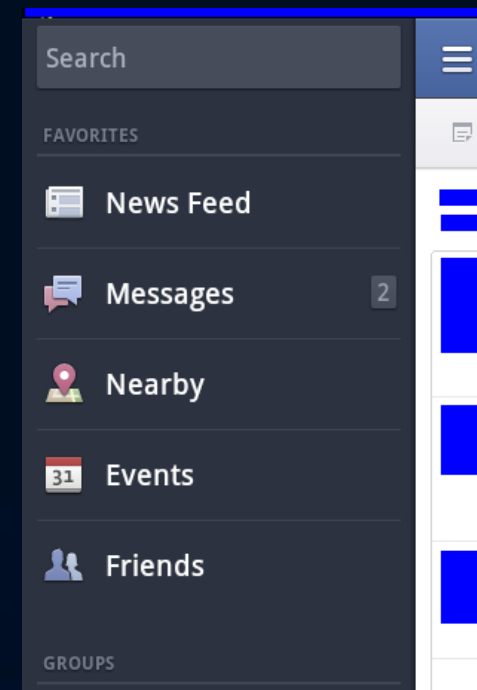
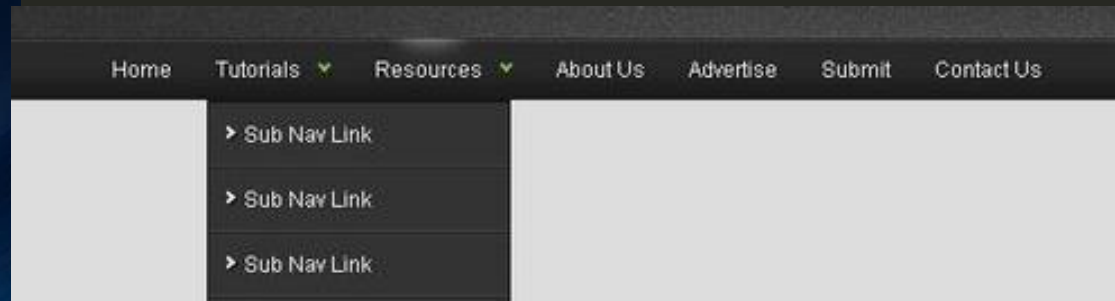
```
<footer>
  <ul>
    <li>Copyright (C)
  </li>
    <li><a href="defa
  </li>
  </ul>
</footer>
```



Creating an HTML5 layout container

- The `<nav>` element
 - It wraps a group of major links
 - Menus are the most common candidates
 - You can have many `<nav>` elements in an HTML doc

```
<nav>
  <a href="#">Item 1</a>
  <a href="#">Item 2</a>
  <a href="#">Item 3</a>
  <a href="#">Item 4</a>
</nav>
```



Creating an HTML5 layout container

- The `<aside>` element

- It wraps secondary content when used for the sidebars

- Example

```
<body>
  <header>
    <h1>Blogging for fun</h1>
  </header>
  <article>
    <h1>Blog of the day</h1>
    <p>This is today's blog post. La, la, la, la, la</p>
    <aside>
      <!-- Inside the article, so it's related to the article -->
      <h1>What's this all about?</h1>
      <p>This article talks about la, la...</p>
    </aside>
  </article>
```

Creating an HTML5 layout container

- The `<aside>` element

- It wraps secondary content when used for the sidebars

- Example (cont.)

```
<aside>
  <!-- Outside the article, so it's related to the sites -->
  <h2>Blog Advertising</h2>
  <p>You too can have your own blog...</p>
</aside>
</body>
```


Creating an HTML5 layout container

- `<aside>` and `<div>` implement **role** attribute
 - application
 - banner
 - complementary
 - contentinfo
 - form
 - main
 - navigation
 - search

Controlling format by using the <div> element

- When using HTML5, it's better to use a semantic element to provide context that has meaning
- When you want to format a part of HTML doc, using <div> element

Adding thematic breaks

- Use `<hr />` element to add a thematic break
- It is used for a scene change in a story or to denote a transition to another topic

```
<html>
  <head></head>
  <body>
    <header>
      <span style="color:brown;font-style:ital
Header: The area defines the header Tag</span>
      <hr />
      <h1>Articles</h1>
    </header>
    <article>
      <p>The tag is supported in all major browsers.</p>
    </article>
  </body>
</html>
```



Annotating content

- The **** element

- It was used to produce bold text
- Use it to denote product names, keywords, or an article lede

```
<article>
```

```
  <h1>PlyWannaWidget Review</h1>
```

```
  The <b>PlyWannaWidget</b> is the best product to use for  
  creating crackers from nothing other than a hammer.
```

```
</article>
```



Annotating content

- The `` element
 - It represents strong importance for its contents
 - A `` element can be nested within another one
 - `<p>`
You need to turn `right`.
`</p>`
 - The default styles for `` and `` elements look the same



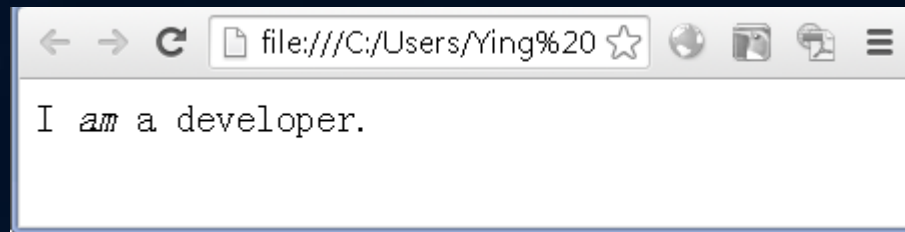
Annotating content

- The `<i>` element
 - It was used to produce italic text
 - It indicates a different quality of text like a taxonomic designation, a technical term, an idiomatic phrase from another language

Annotating content

- The `` element
 - It is used for emphatic stress

```
<p>
  I <em>am</em> a developer.
</p>
```
 - The default styles for `` and `<i>` elements look the same



Annotating content

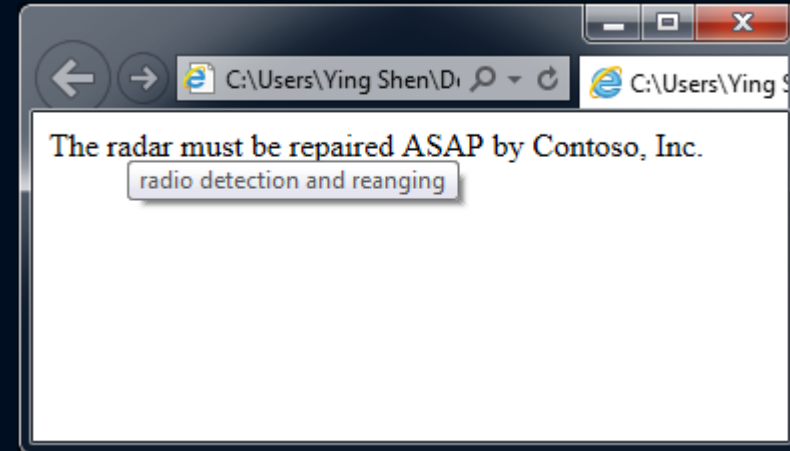
- The `<abbr>` element
 - `<acronym>` is obsolete in HTML5
 - Use `<abbr>` to indicate an abbreviation or acronym and use the `title` attribute to provide the full text

`<p>`

```
The <abbr title='radio detection and reanging'>radar</abbr> must be repaired <abbr title='as soon as possible'>ASAP</abbr> by Contoso, <abbr title='Incorporated'>Inc.</abbr>
```

`</p>`

- The `title` is not required
- `<abbr>` can be used with `` or other inline elements



Annotating content

- The `<address>` element
 - It is used to define contact information for *the author/owner of a document*

```
<footer>  
  Copyright (C) 2012  
  <address>  
    Contoso, Inc.  
    <a href="mailto:WebMaster@Contoso.com">  
      WebMaster@Contoso.com  
    </a>  
  </address>  
</footer>
```



- Do not use `<address>` to wrap your customer's address

Annotating content

- Quotations
 - You can use `<blockquote>` to create a long, running quotation and `<q>` for an inline quotation
 - Both elements have a `cite` attribute

Quotations

<blockquote>

O Romeo, Romeo, wherefore art thou Romeo?

Deny thy father and refuse thy name;

Or if thou wilt not, be but sworn my love

And I'll no longer

<footer>

<p>

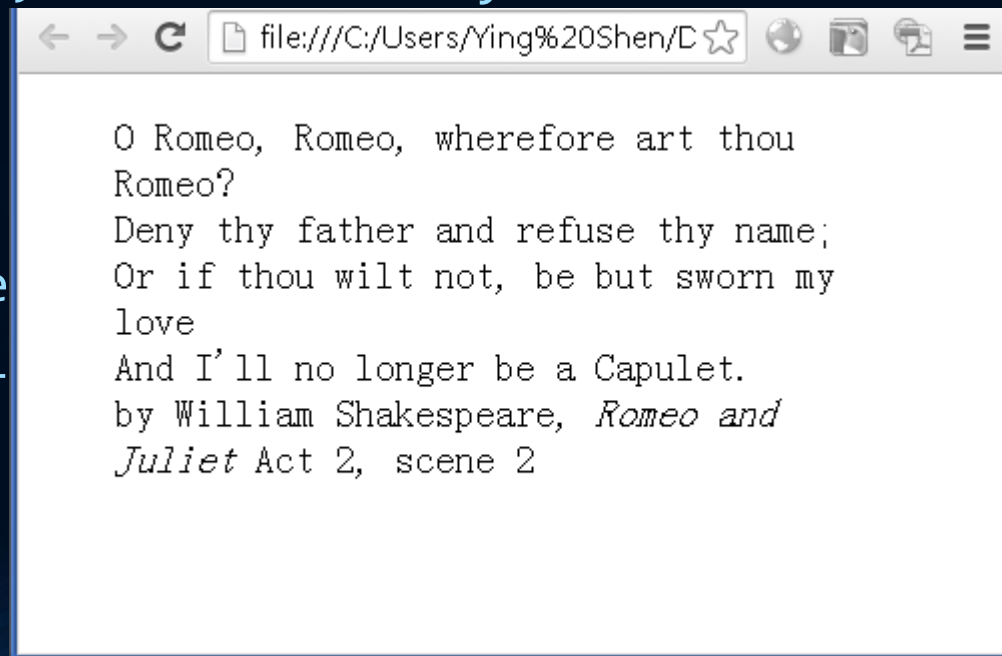
by William Shakespe

<cite>Romeo and Jul

</p>

</footer>

</blockquote>

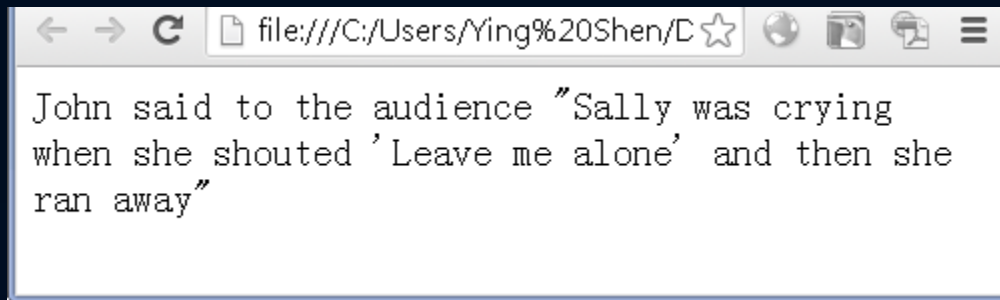


Quotations

<p>

John said to the audience <q>Sally was crying when she
shouted <q>Leave me alone</q> and then she ran away</q>

</p>



Annotating content

- Understanding other annotations
 - `<s>`
 - `<u>`
 - `<mark>`
 - `<ins>`
 - ``
 - `<small>`
 - `<sub>`
 - `<sup>`
 - `<time>`
 - `<kbd>`
 - `<code>` and `<samp>`
 - `<pre>`
 - `<var>`
 - `
` and `<wbr />`
 - `<dfn>`
 - `<figure>` and `<figcaption>`
 - `<summary>` and `<details>`

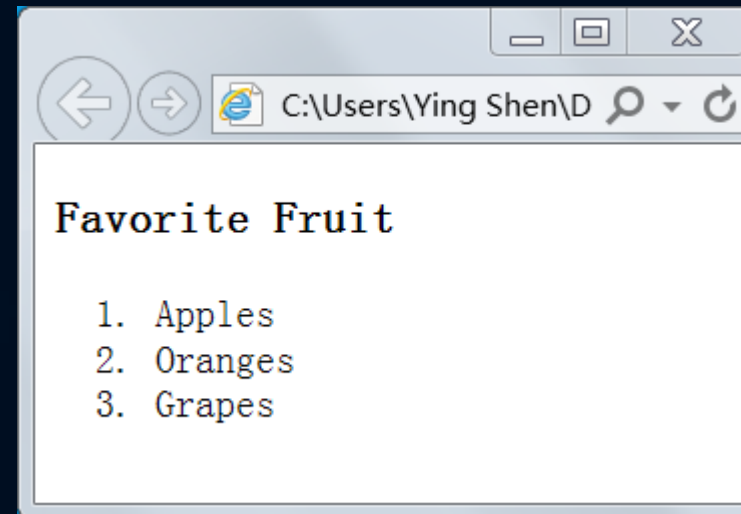
Working with lists

- HTML5 has ordered, unordered, and descriptive lists
- All lists have list items
 - Implemented by using the `` element

Ordered lists

- An ordered list is a numbered list
- Use `` element to auto-number the list items

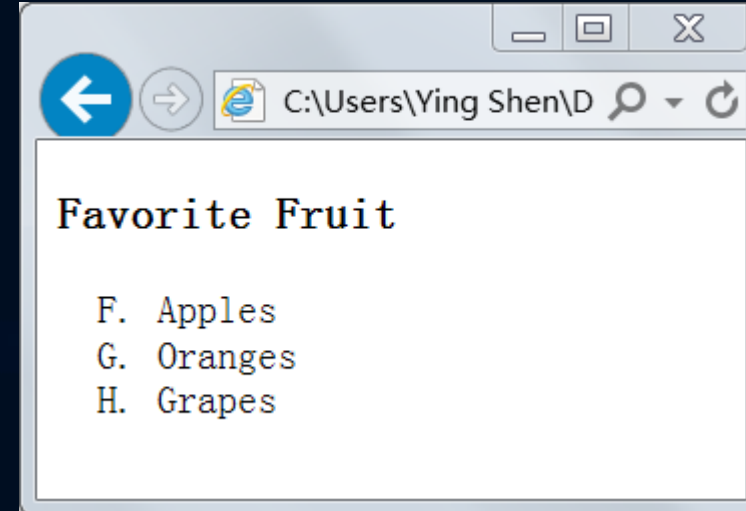
```
<h3>Favorite Fruit</h3>
<ol>
  <li>Apples</li>
  <li>Oranges</li>
  <li>Grapes</li>
</ol>
```



Ordered lists

- `` element has the following attributes
 - reversed
 - start
 - type: "1" , "A" , "a" , "I"

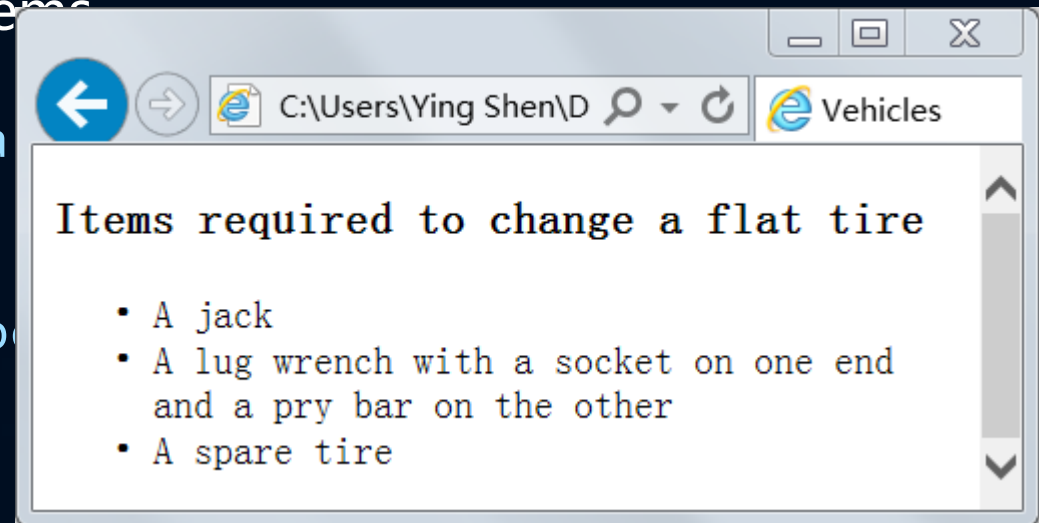
```
<h3>Favorite Fruit</h3>
<ol type="A" start="6">
  <li>Apples</li>
  <li>Oranges</li>
  <li>Grapes</li>
</ol>
```



Unordered lists

- An unordered list is not auto-numbered
- Use `` element to create an unordered list of items
- It produces bullet points before items

```
<h3>Items required to change a flat tire</h3>
<ul>
  <li>A jack</li>
  <li>A lug wrench with a socket on one end
  on the other</li>
  <li>A spare tire</li>
</ul>
```



Description lists

- A description list consists of name-value pairs
 - Name: in `<dt>` element
 - Value (description): in `<dd>` element
- Use `<dl>` elements to create a description list by grouping `<dt>` and `<dd>` elements

Description lists

```
<h3>Common Vehicles</h3>
<dl>
  <dt>Boat</dt>
  <dd>A small vehicle propelled on water by oars, sails, or an engine</dd>
  <dt>Car</dt>
  <dd>An automobile</dd>
  <dd>A passenger vehicle designed for operation on ordinary roads and typically having four wheels and an engine</dd>
  <dt>Bicycle</dt>
  <dt>Bike</dt>
  <dd>A vehicle with two wheels in tandem, typically propelled by pedals connected to rear wheel by a chain...</dd>
</dl>
```

