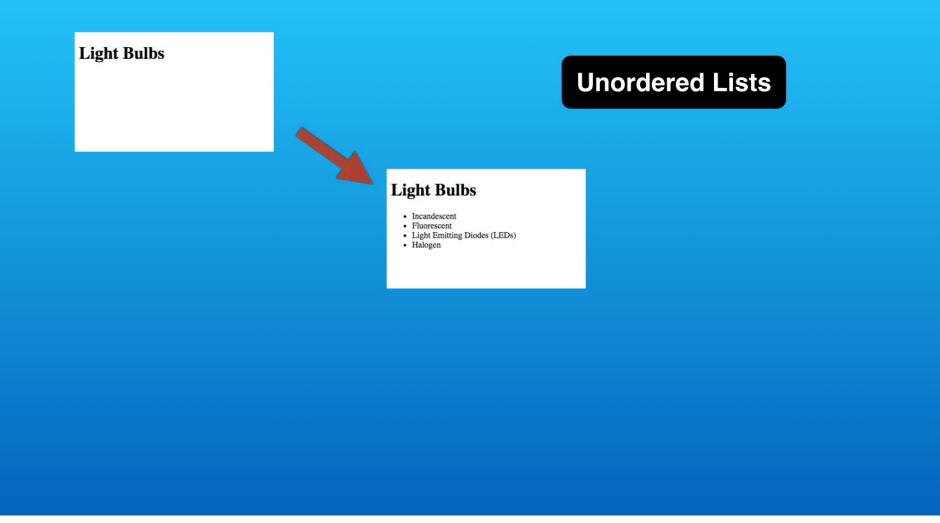
# **How To Create Unordered HTML Lists**

With Lon Hosford

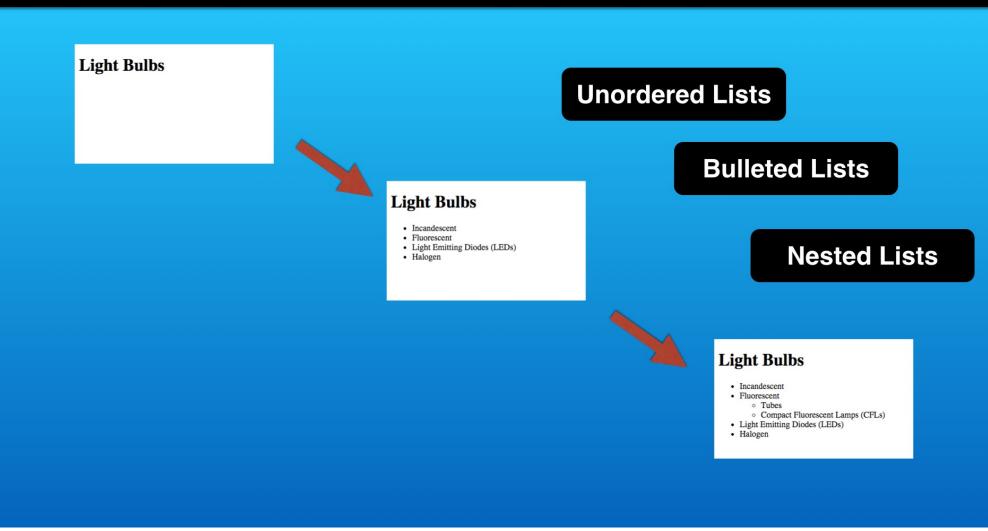
Copyright 2014 Lon Hosford. All Rights Reserved. www.lonhosford.com This is a Visual Step by Step Workbook and voice transcript for accompanying video for this portion of the course.



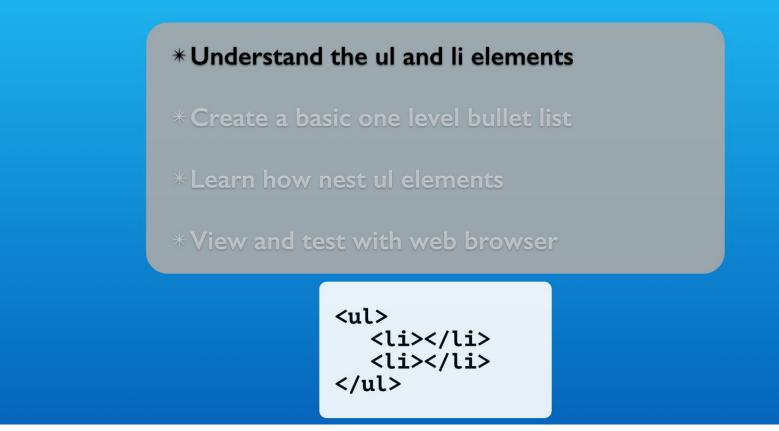
In this exercise we start creating HTML lists using unordered lists.



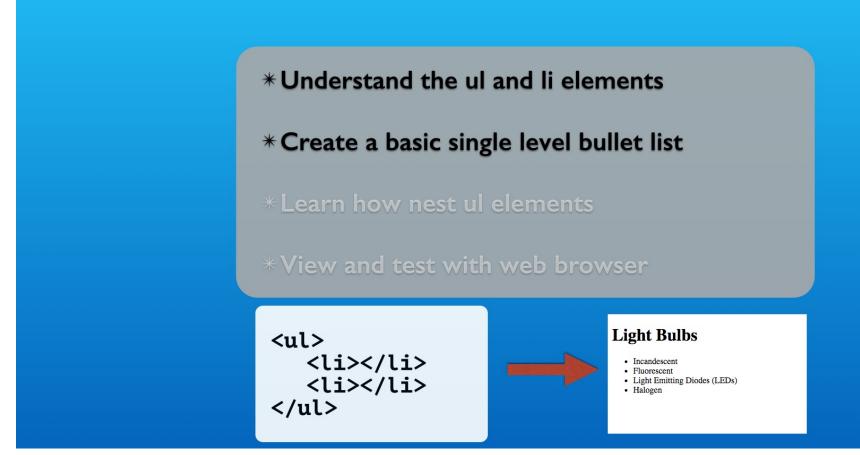
You may think of unordered lists as bulleted lists that you find in most word processing programs.



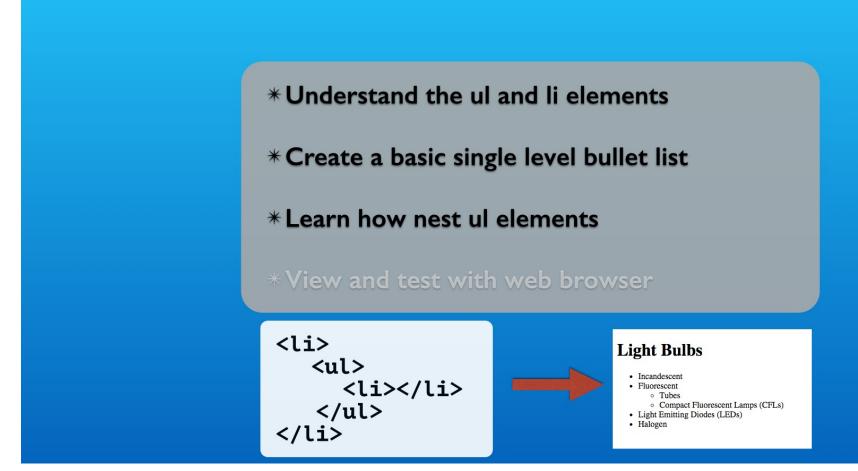
We will see how HTML can nest lists such as in creating an outline.



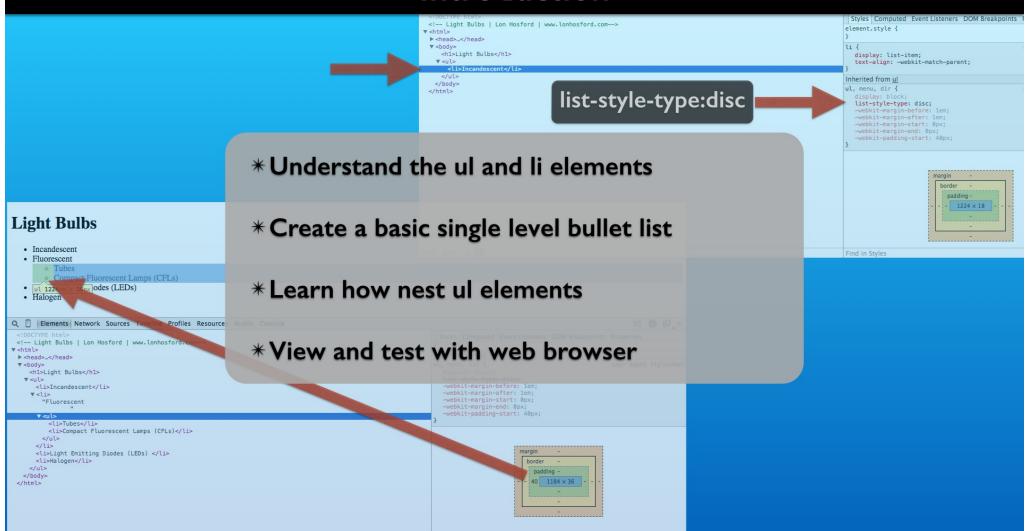
We start by learning how the ul and li elements work together in HTML to create a bulleted list.



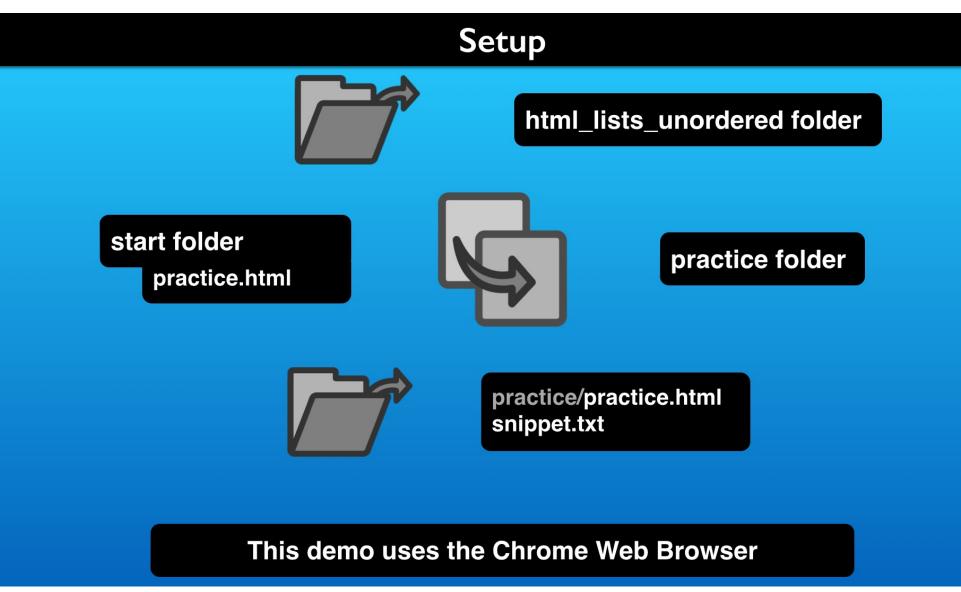
We will apply them to our first single level list.



Then we will create a second level list by nesting the ul element inside a li element.



We are going to explore the default CSS properties for the bullets and indenting using the web browser development tools.



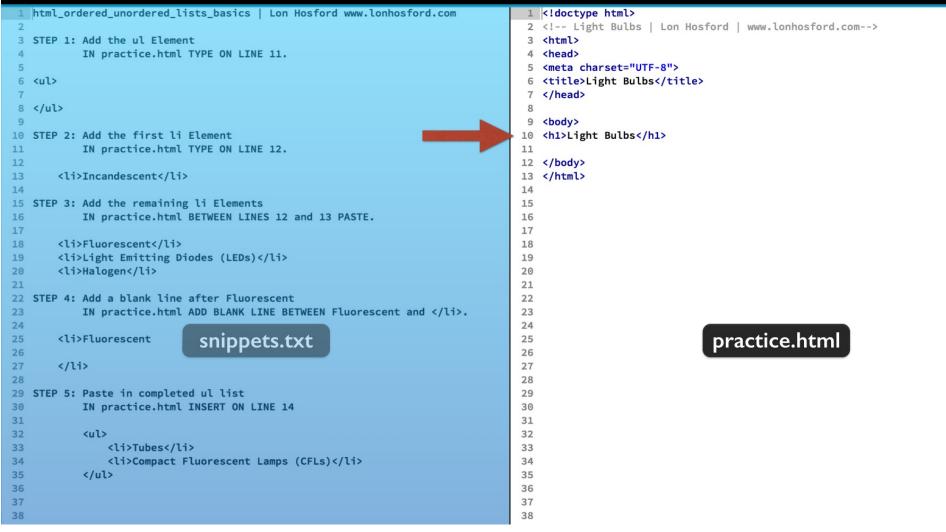
If you like to follow along, copy the file in the activity's start folder and open the listed files in an editor.

## **Review The Starting Files**

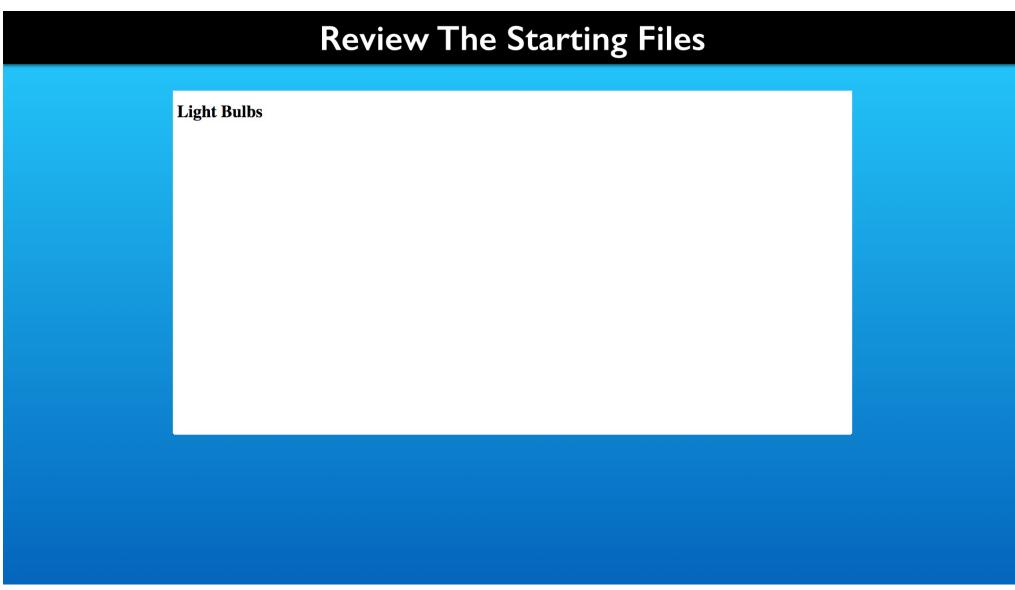
1       html_ordered_unordered_lists_basics   Lon Hosford www.lonhosford.com       1 html 2       2       2       2       2	
2 N== LIGHT DULDS   LUH HUSTOTU   WWW. COHIOS	ford.com>
3 STEP 1: Add the ul Element 3 <html></html>	
4 IN practice.html TYPE ON LINE 11. 4 <head></head>	
5 <meta charset="utf-8"/>	
6 <ul>     6 <title>Light Bulbs</title></ul>	
7 7	
8	
9 9 <body></body>	
10 STEP 2: Add the first li Element 10 <h1>Light Bulbs</h1>	
11 IN practice.html TYPE ON LINE 12. 11	
12 12	
13 <li>Incandescent</li>	
14 14	
15 STEP 3: Add the remaining li Elements 15	
16 IN practice.html BETWEEN LINES 12 and 13 PASTE. 16	
17 17	
18 <li>Fluorescent</li>	
19 <li>Light Emitting Diodes (LEDs)</li>	
20 <li>Halogen</li>	
21 21	
22 STEP 4: Add a blank line after Fluorescent 22	
23 IN practice.html ADD BLANK LINE BETWEEN Fluorescent and <li>23</li>	
24 24	
<sup>25</sup> <li><sup>25</sup> snippets.txt <sup>25</sup> practice.h</li>	tml
27	
28 28	
29 STEP 5: Paste in completed ul list 29	
30 IN practice.html INSERT ON LINE 14 30	
31 32 <ul> <li>31 32</li> </ul>	
32 <ul>       33     <li>Tubes</li>      33     33</ul>	
······································	
35  35 35 36 36	
36 37 37	
38 38	
50	

This is the snippets file and the starting HTML file.

#### **Review The Starting Files**

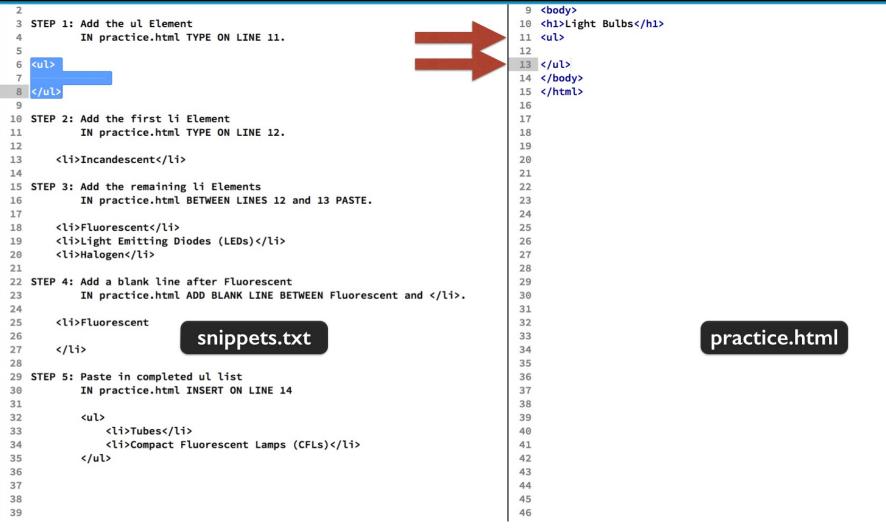


The HTML file is a bare bones file with one h1 element for heading content. There is no added CSS styling.

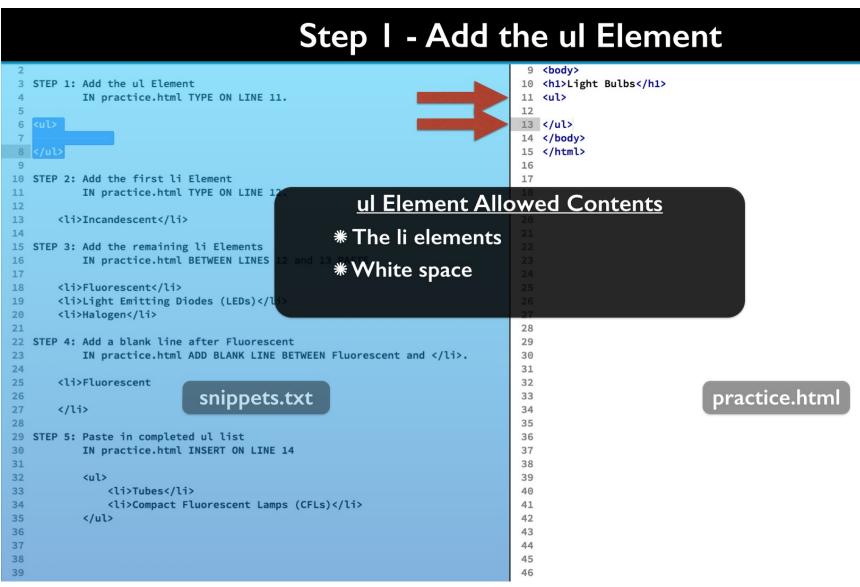


If you open it in the web browser, you will just see a page heading.

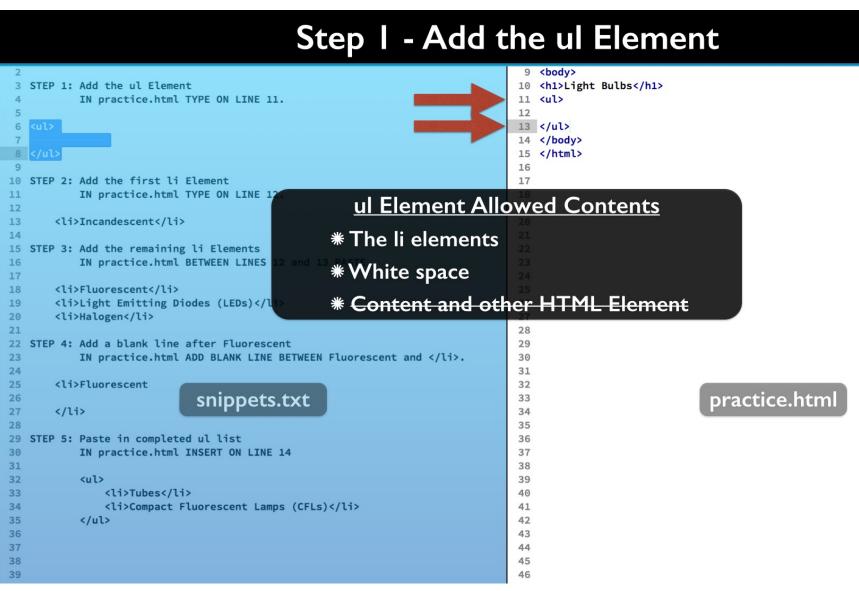
### Step I - Add the ul Element



In the first step we are adding the ul element. Typically we will type it's open and close tags on separate lines.



The ul element is a container element for li elements. It can only contain white space and one or more li elements.



No content or other HTML elements are allowed inside the ul element.

#### Step 2 - Add the First li Element

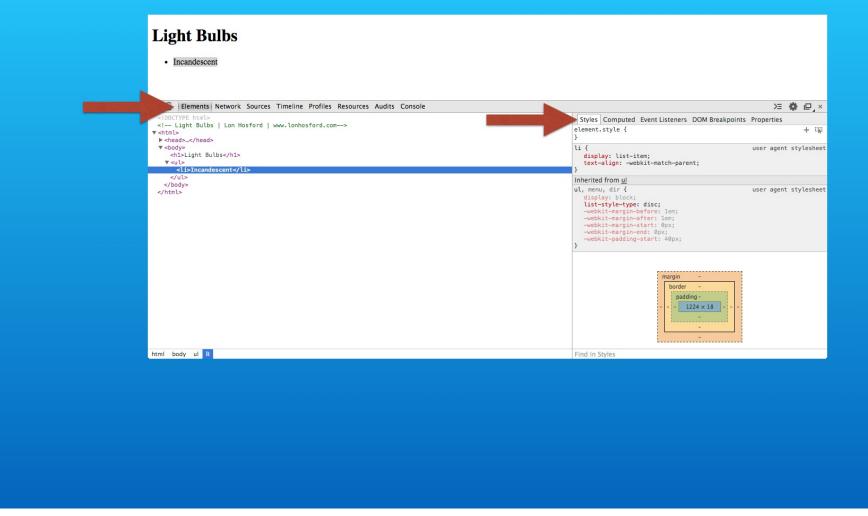


For step 2, copy and paste the li element between the ul element's open and close tags.

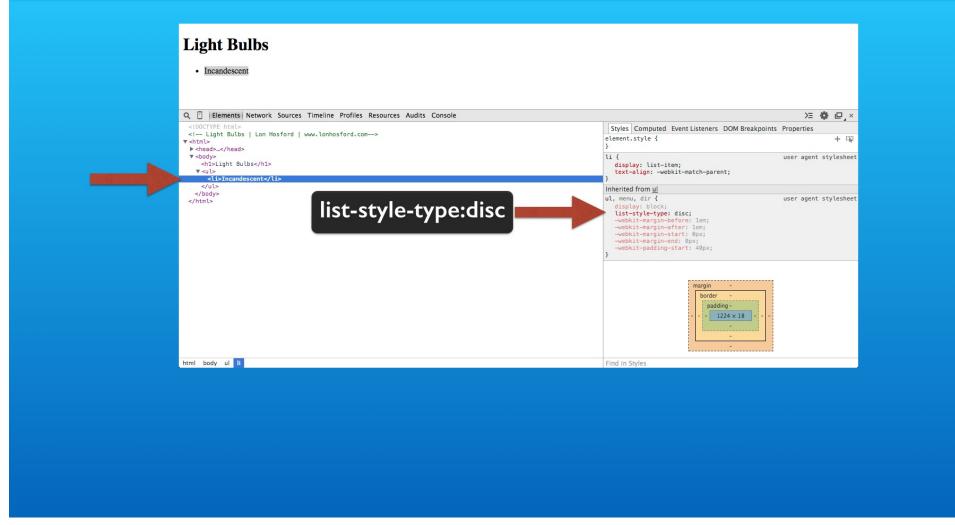


Incandescent

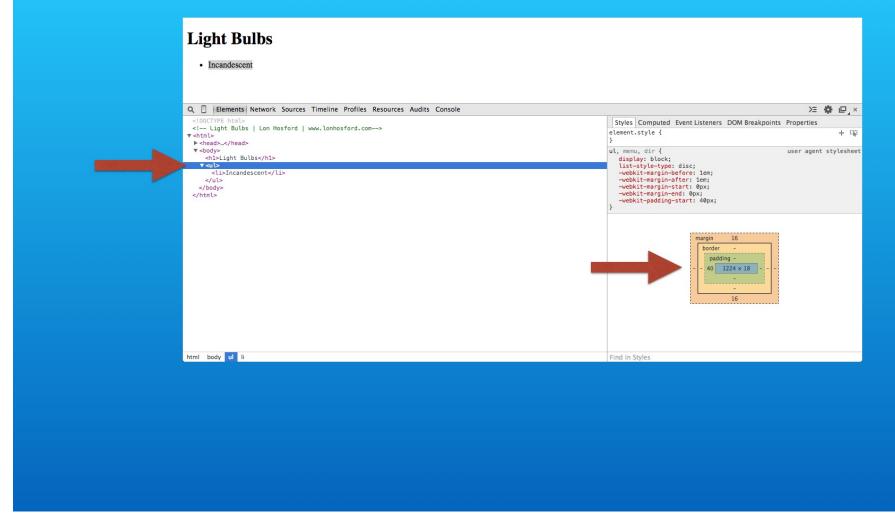
Save and in the web browser you see the beginnings of the list. The bullets have a default shape. And it may not be obvious at first, but there is indenting to the left of the bullets.



If you inspect the elements in your web browser developer tools, we can explore how these occur.



Start with the li element. You can see that the bullet style is set by the CSS list-style-type property. That property is inherited from its parent ul element container.

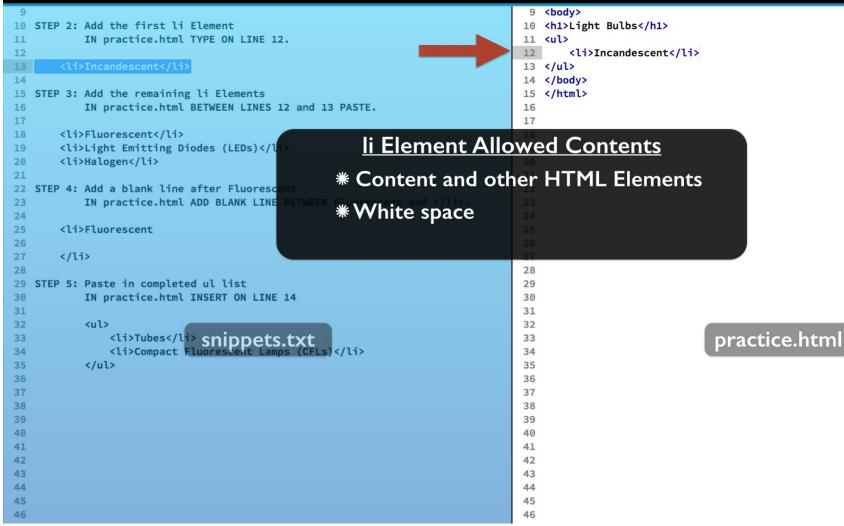


Now select the ul element and open the box model panel. It is showing 40 pixels of left padding.

Q.       Pelements       Network Sources Timeline Profiles Resources Audits Console </th <th><pre>&gt;&gt; E * L : Styles Computed Event Listeners DOM Breakpoints Properties element.style { + Ex } ul, menu, dir { user agent stylesher display: blck; list-style-type: disc; -webkit-margin-before: lem; -webkit-margin-start: 0px; -webkit-padding-start: 40px; } margin 16 border - padding - - 40 1224 x 18 - 16</pre></th>	<pre>&gt;&gt; E * L : Styles Computed Event Listeners DOM Breakpoints Properties element.style { + Ex } ul, menu, dir { user agent stylesher display: blck; list-style-type: disc; -webkit-margin-before: lem; -webkit-margin-start: 0px; -webkit-padding-start: 40px; } margin 16 border - padding - - 40 1224 x 18 - 16</pre>
html body ul li	Find in Styles

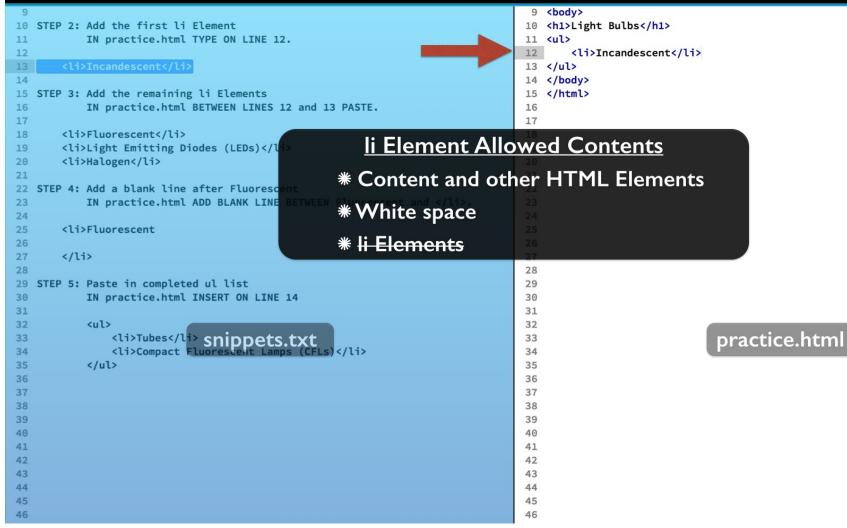
There is also a top and bottom 16 pixel margin to the ul element. These are default CSS property values applied by the web browser. We can override them in our own style sheets.





The li element is a container element for list content. You will find that it can pretty much contain any content along with most other HTML elements.





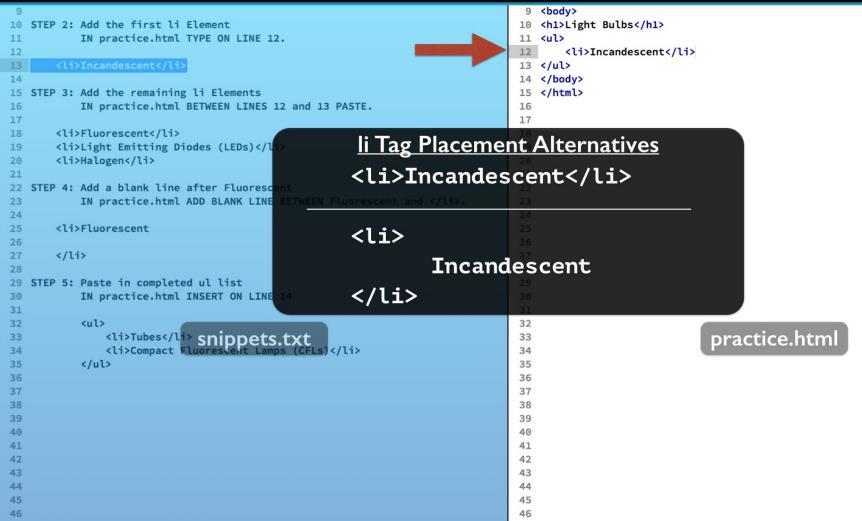
The first exception to note is that the li element cannot contain another li element.



9	9 <body></body>			
10 STEP 2: Add the first li Element	10 <h1>Light Bulbs</h1> 11 <ul></ul>			
11   IN practice.html TYPE ON LINE 12.     12	12 <li>12 <li>12</li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li>			
13 <li>13 <li>Incandescent</li></li>	13			
14	14			
15 STEP 3: Add the remaining li Elements	15			
16 IN practice.html BETWEEN LINES 12 and 13 PASTE.	16			
17	17			
18 <li>Fluorescent</li>				
19 <li>Light Emitting Diodes (LEDs)</li> 11     13     11     13     13       20 <li>Halogen</li>	nent Alternatives			
	accont < /1 i >			
21 <pre><li>22 STEP 4: Add a blank line after Fluorescent</li></pre>				
23 IN practice.html ADD BLANK LINE BETWEEN Fluorescent and	23			
24	24			
25 <li>Fluorescent</li>	25			
26	26			
27	27			
28 29 STEP 5: Paste in completed ul list	28			
30 IN practice.html INSERT ON LINE 14	30			
31	31			
32 <ul></ul>	32			
33 <li>Tubes</li> snippets.txt       34 <li>Compact Fluorestent Lamps (CFLs)</li>	<sup>33</sup> practice.html			
	34			
35	35			
36	36			
37	37 38			
38 39	39			
40	40			
41	41			
42	42			
43	43			
44	44			
45	45			
46	46			

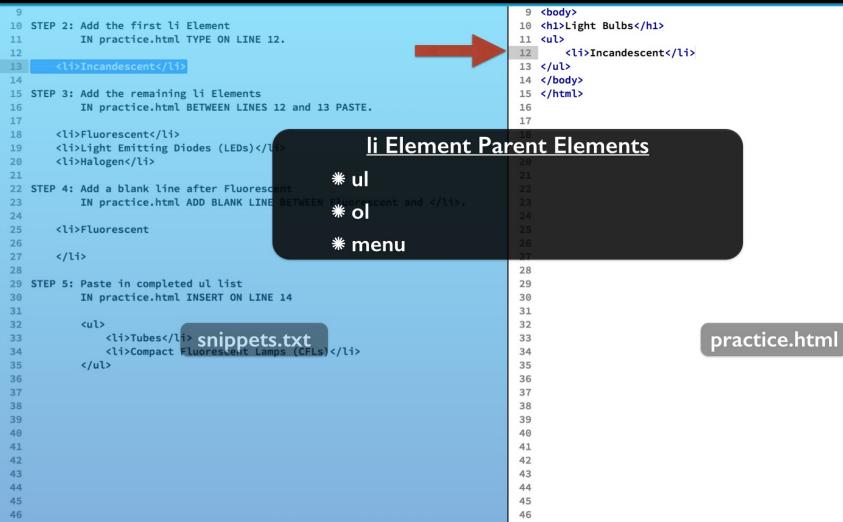
For short list items, the open and close li tags are often put on the same code line.



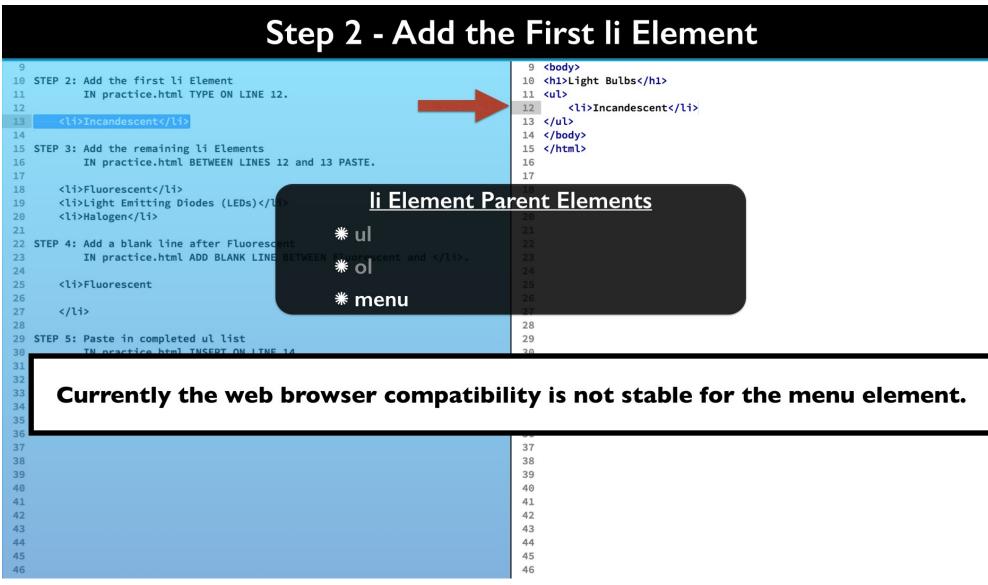


However you can include the li tags on separate lines to suit your style. When you do, content is best indented inside the li tags.



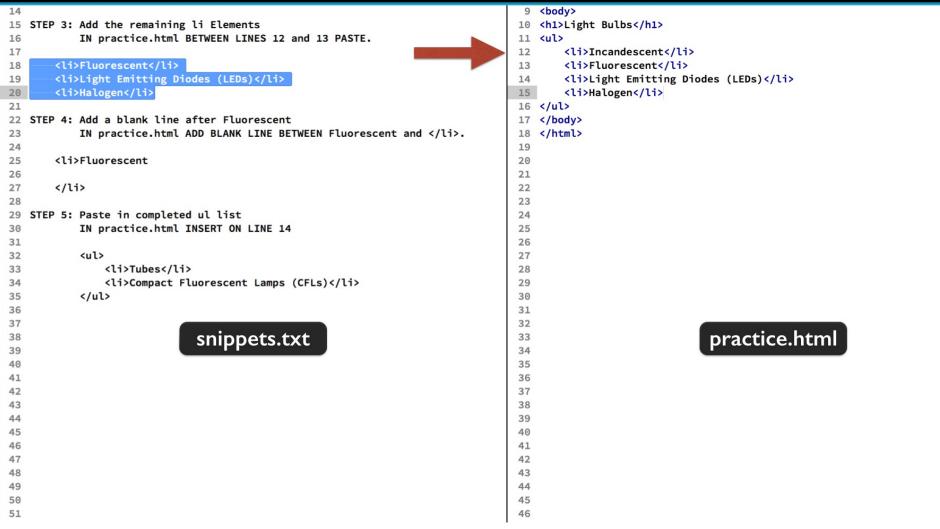


The li element can only be used inside of the ul element, the ol and menu elements. The ol element is for numbered lists. We will cover it in a separate lesson.



The menu element is a semantic version of the ul element. This means it implies that the content is intended as a menu and not a list.

### Step 3 - Add the Remaining li Elements



For the next step you can copy and paste the remaining li elements. Place them under the one we have already added.

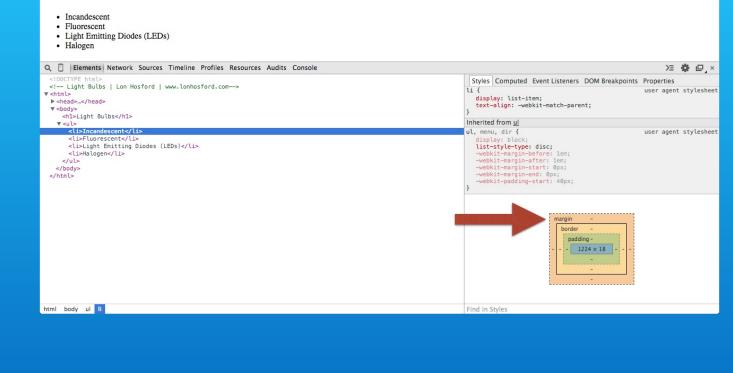
#### Light Bulbs

- Incandescent
- Fluorescent
- Light Emitting Diodes (LEDs)
   Helogen



In the web browser you see that each list element starts on a new line and the same bullet shape is repeated.

#### Light Bulbs



The spacing between li elements can be adjusted through the CSS box model margin and border properties.

#### Light Bulbs

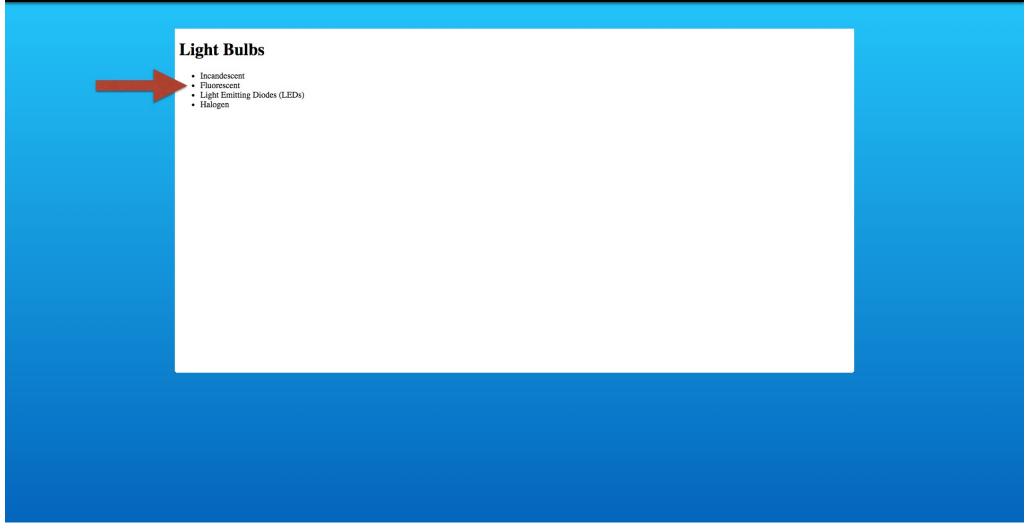
Incandescent

- FluorescentLight Emitting Diodes (LEDs)
- Light Emitting D
   Halogen

Simple List Item Line Spacing

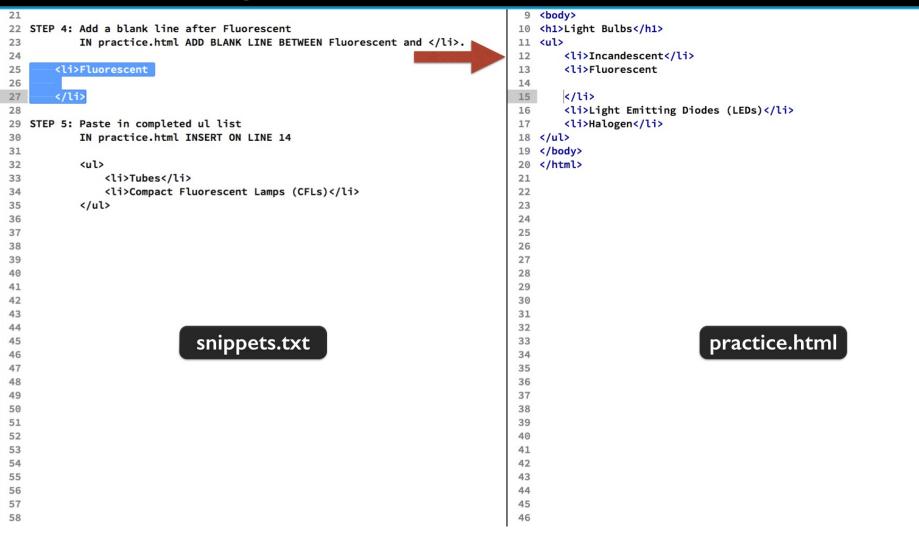
Use the p element for line spacing. Incandescent

Keep in mind other elements like the p element may add margins and padding. This another way to create space between the li elements.



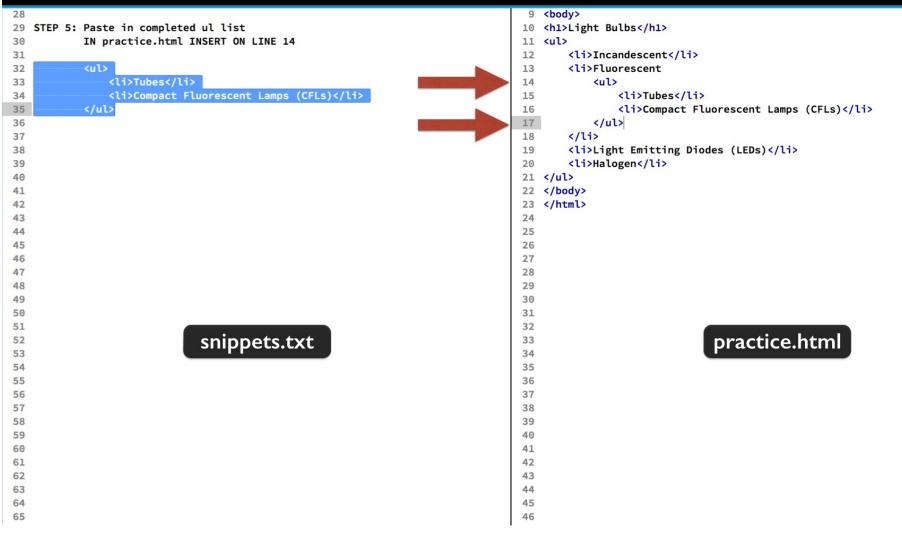
Next lets add a list for two types of Fluorescent bulbs. We will want it to be indented as a second level list under the Fluorescent bulb list item.

#### Step 4: Add a blank line after Fluorescent

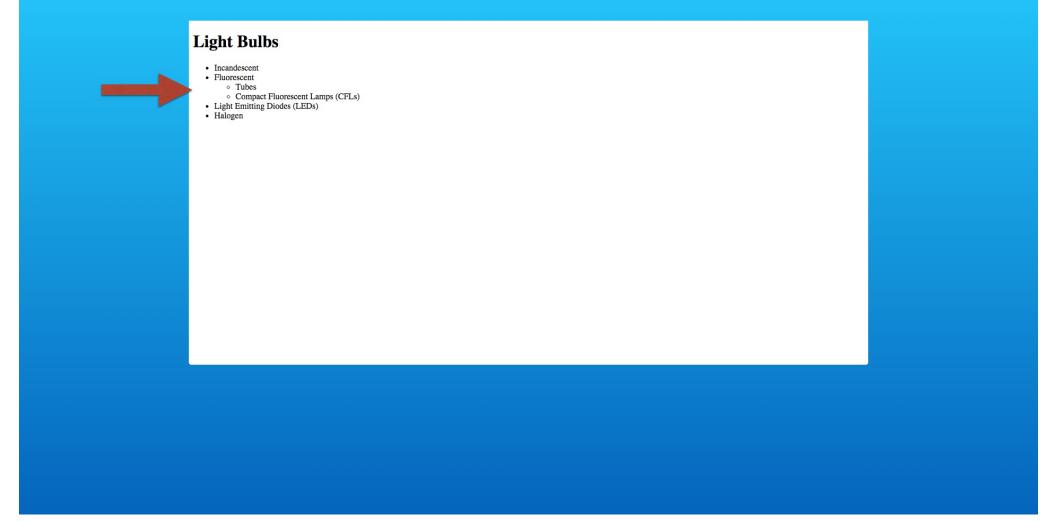


First we will add some white space inside the li element for Fluorescent bulbs. Add a blank line after the word Fluorescent. Align the open and close li element indenting.

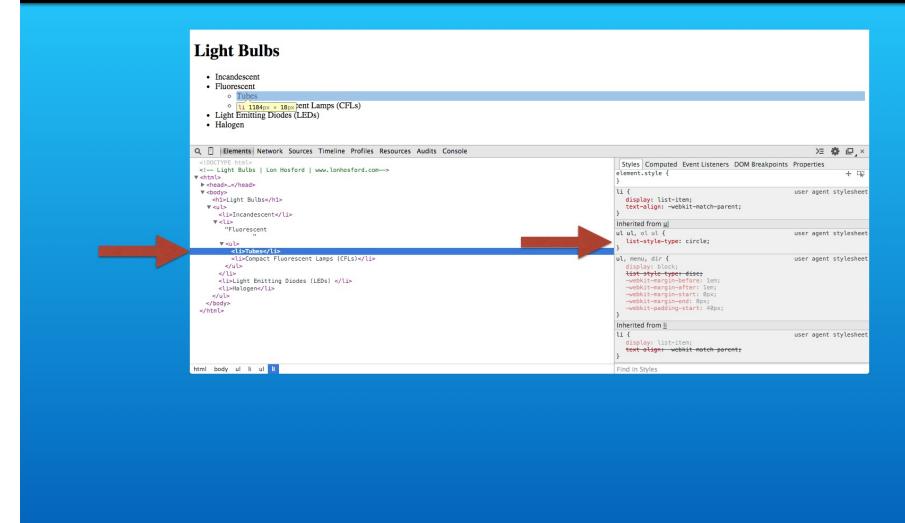
#### Step 5: Paste In The Completed ul List



Now copy the ul element in step 5. Paste it in the blank line we created. Notice how the indenting helps show the HTML container nesting in the code.



Save and check it out in the web browser. You can see that we have a different bullet symbol and more indenting. Lets explore them further in the web developer tools



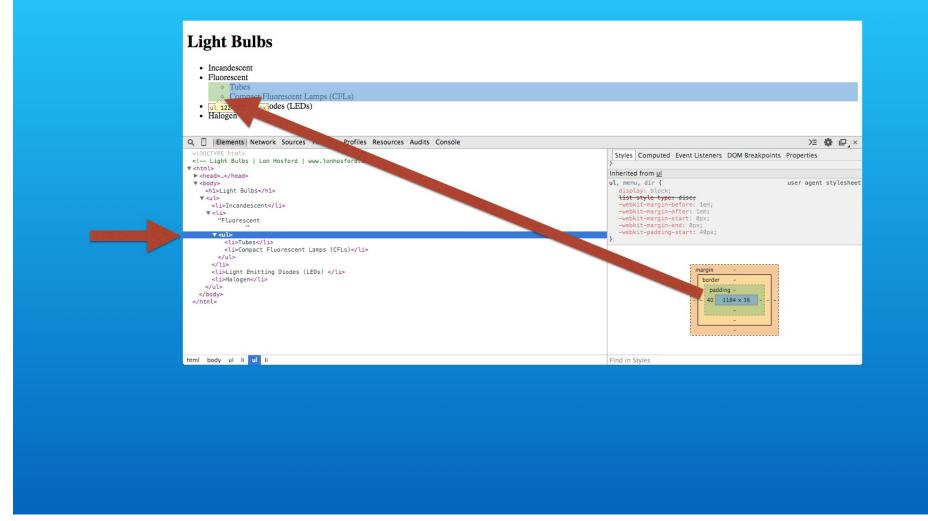
Select the li element for the Tubes list item. You can see its list-style-property is set to circle.

# Testing in the Web Browser

	Light Bulbs			
	• Incandescent			
	Fluorescent     Tubes			
	<ul> <li><u>li 1184px × 18px</u> ent Lamps (CFLs)</li> <li>Light Emitting Diodes (LEDs)</li> </ul>			
	Light Emitting Diodes (LEDs)     Halogen			
	li Element	Default	Bullot Symbols	
		Delault	<u>: Bullet Symbols</u>	×_@ \$\$ =>
	html Light Bulbs   Lon Hosford   www.lonhosford.com			OM Breakpoints Properties + ፡፡፡፡
	▼ <html> ▶ <head></head></html>	disc	Top loval	
	▼ <body> <h1>Light Bulbs</h1></body>	aisc	Top level	user agent stylesheet
	▼ <ul> <li><li><li><li>isincandescent</li> <li><li><li><li><li><li><li><li><li><li></li></li></li></li></li></li></li></li></li></li></li></li></li></ul>	-:l-	Second level	·
	▼ <li>"Fluorescent</li>	circie	Second level	user agent stylesheet
	▼ <ul> <li>Tubes</li> </ul>		list-style-type: circle;	
	<li><li></li> <li></li></li>	square	Third level	user agent stylesheet
-	<li></li> <li>Light Emitting Diodes (LEDs) </li>	-		
	<			
	- y (150 5*		} Inherited from <u>li</u>	_
			li {	user agent stylesheet
			display: list-item; text align: webkit match parent	<del>,</del>
	html body ul li ul li		Find in Styles	
			i me in senes	

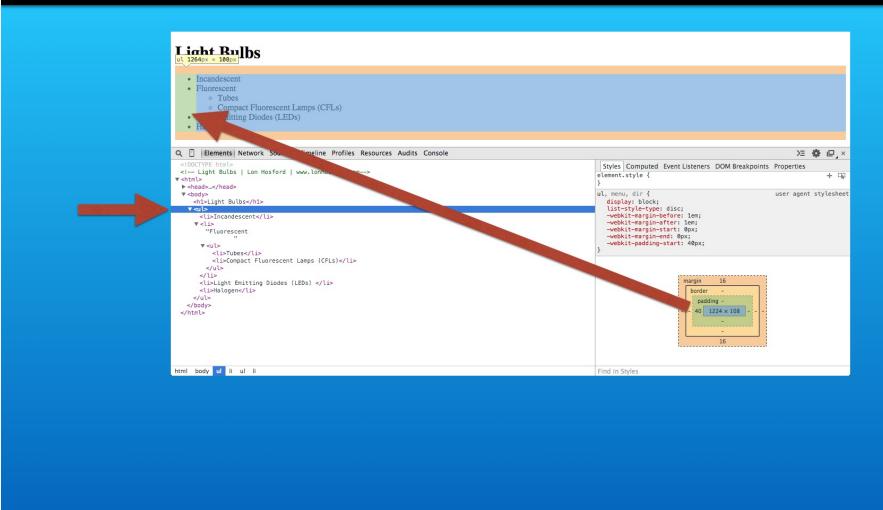
These are the default bullet shapes typically applied by web browsers. After the third level the bullet shapes are repeated for the next three levels.

# **Testing in the Web Browser**

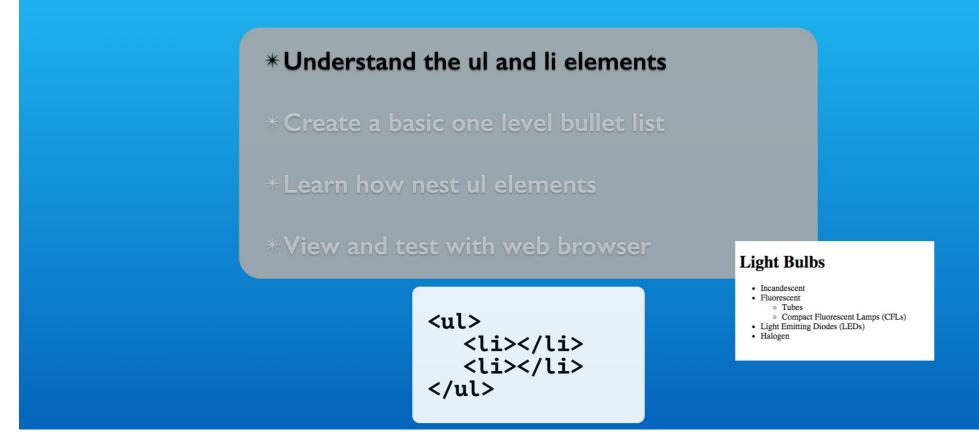


If you hover over the inner ul element, your web browser may visually show you the padding highlighted for the list elements. Notice that the bullets sit inside the padding.

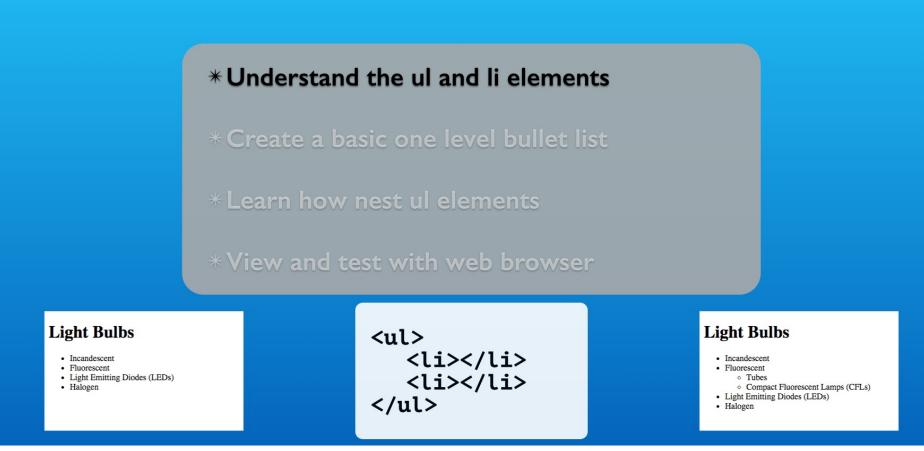
# Testing in the Web Browser



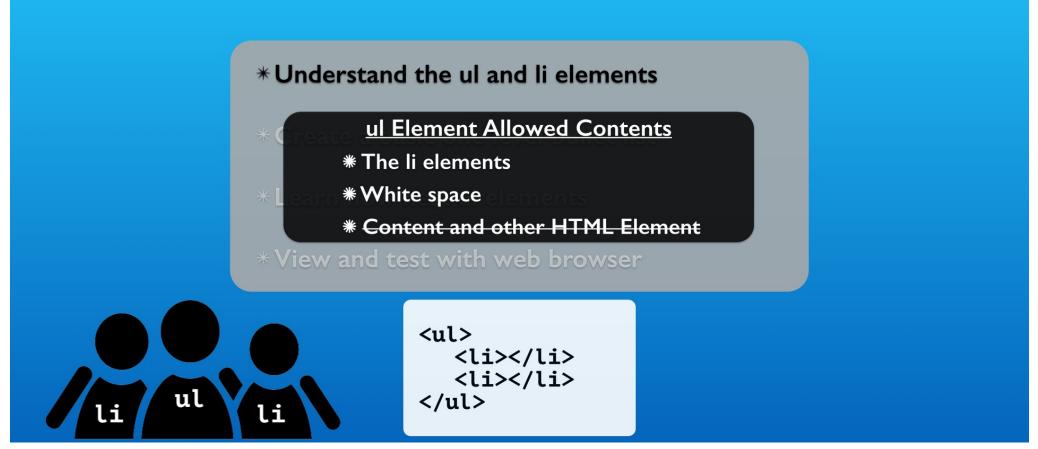
Try it with the outer ul element and it may be more obvious.



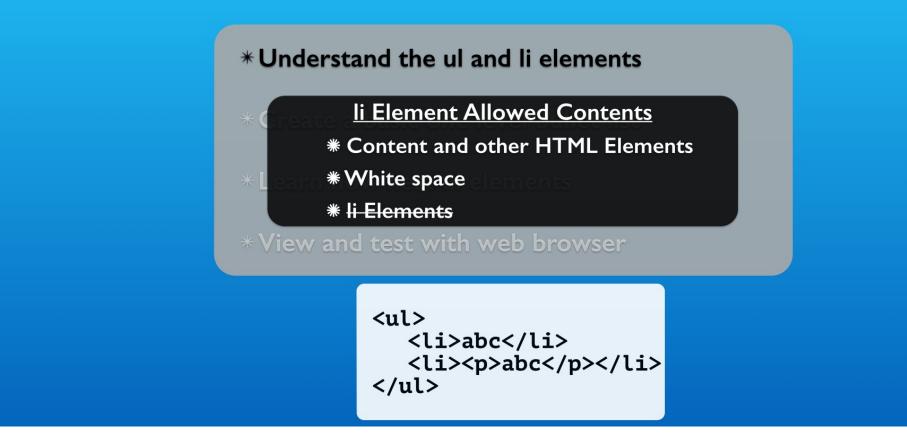
Well that completes this exercise. We took our first dive into HTML lists using the ul and li elements. Without much effort they provide a default list layout for basic bulleted lists.



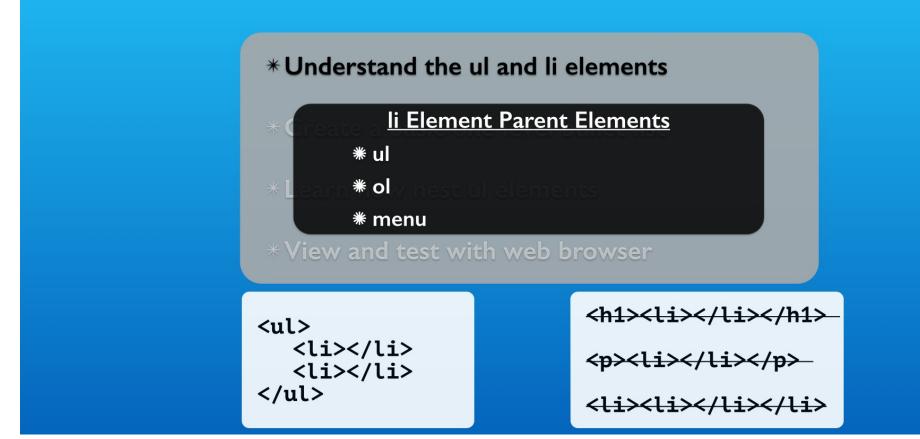
Without much effort they provided a default list layout for basic bulleted lists.



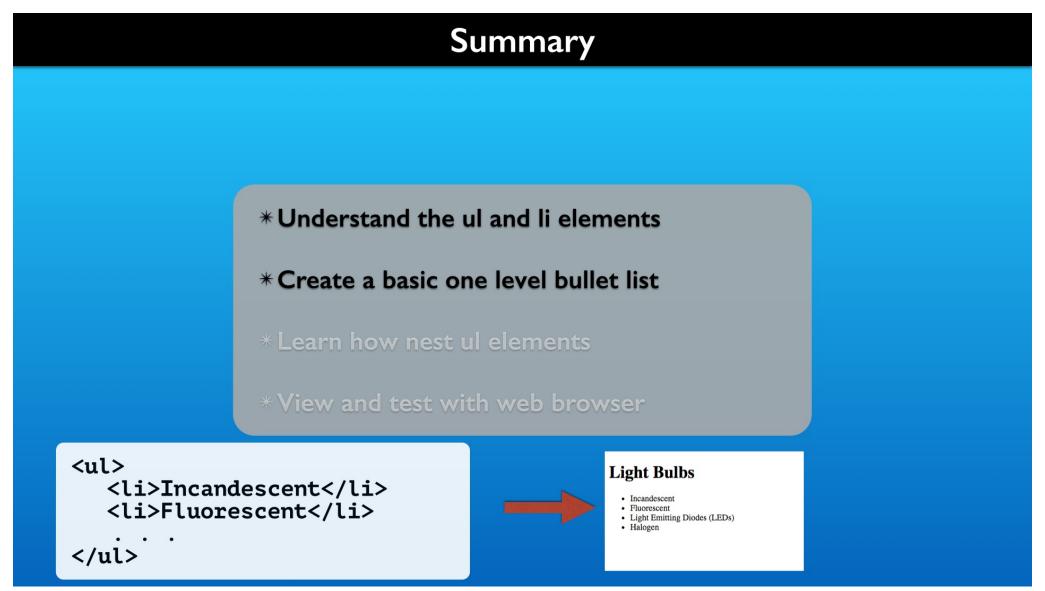
The ul and li elements works as a team. The ul element is the list container. It can only contain li elements and white space.



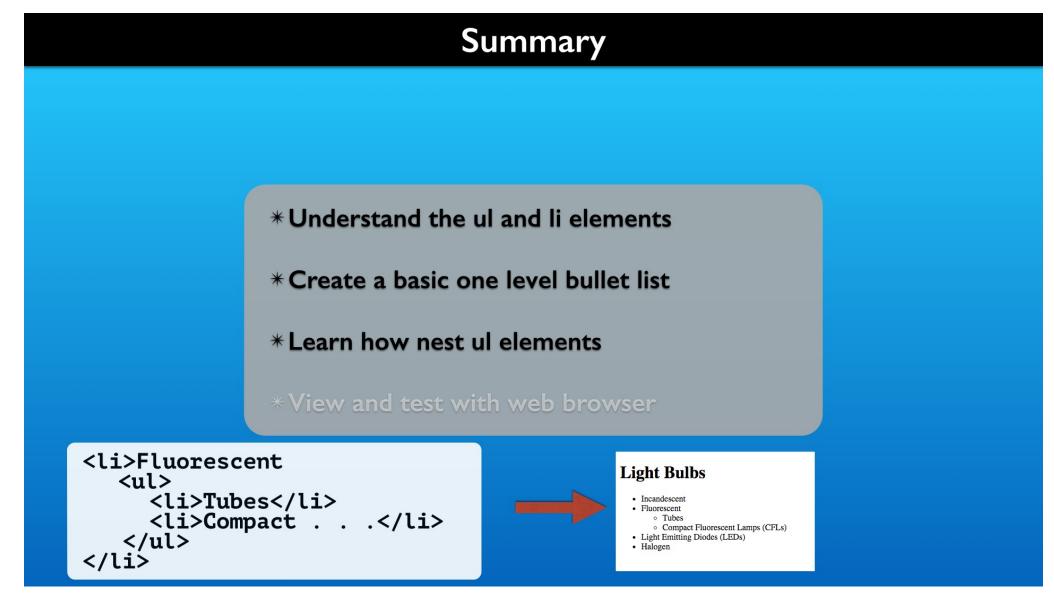
The li elements are containers for the list item content including most HTML elements as needed.



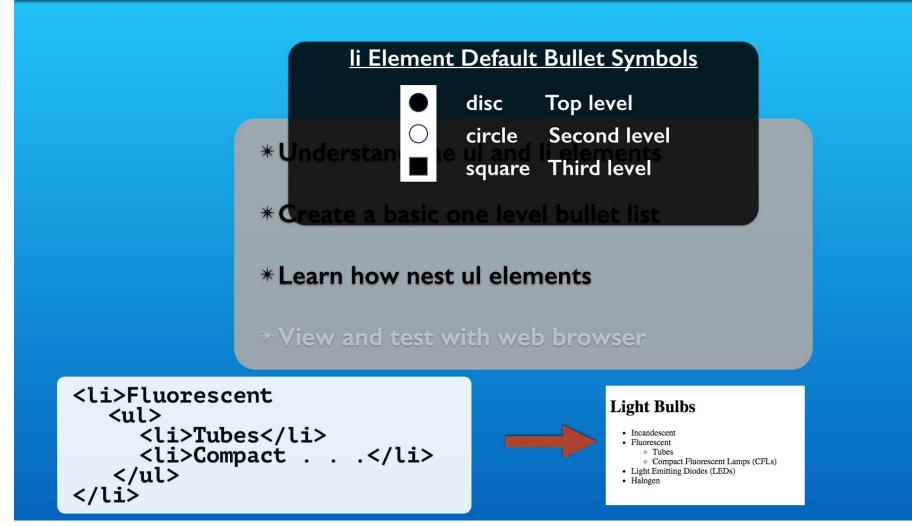
We also found that the li element is restricted to specific allowable parent elements. You cannot put a li element in a p element for example.



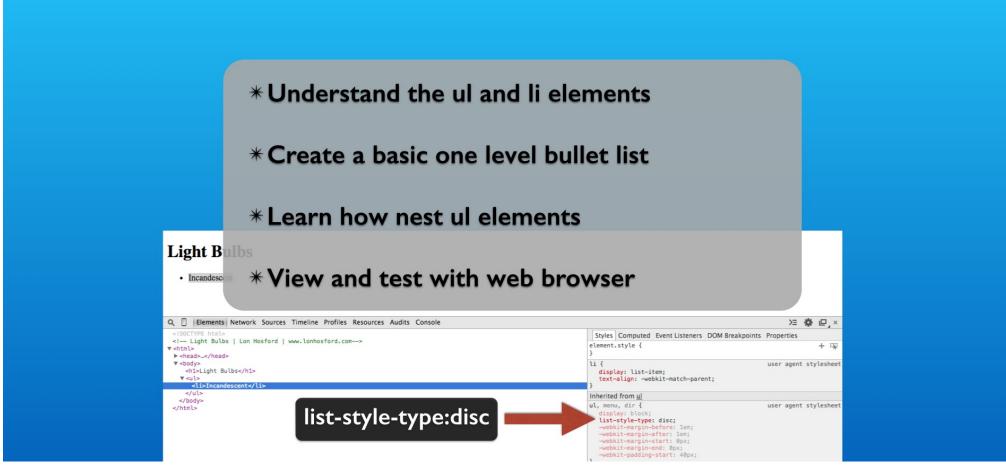
The ul and li elements create a bulleted list. There is a left padding and a predefined set of bullet shapes. Each list item is rendered on a new line.



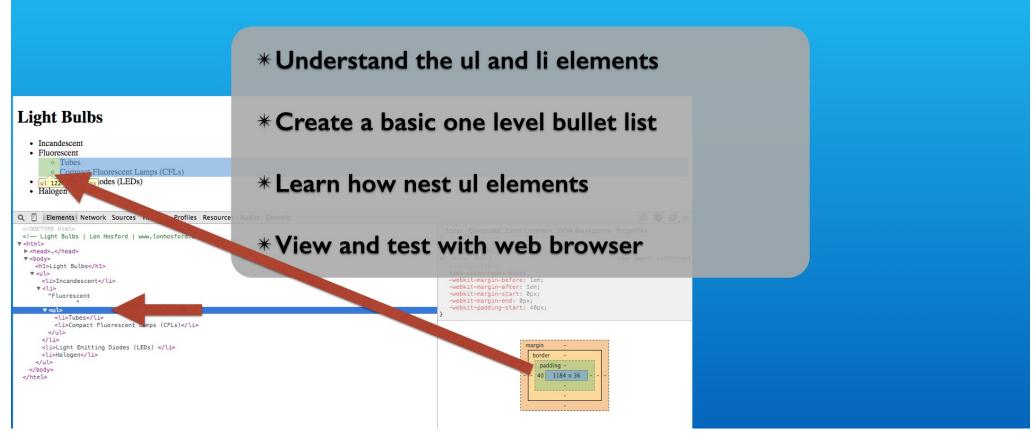
The li element can contain other lists creating an outlining effect.



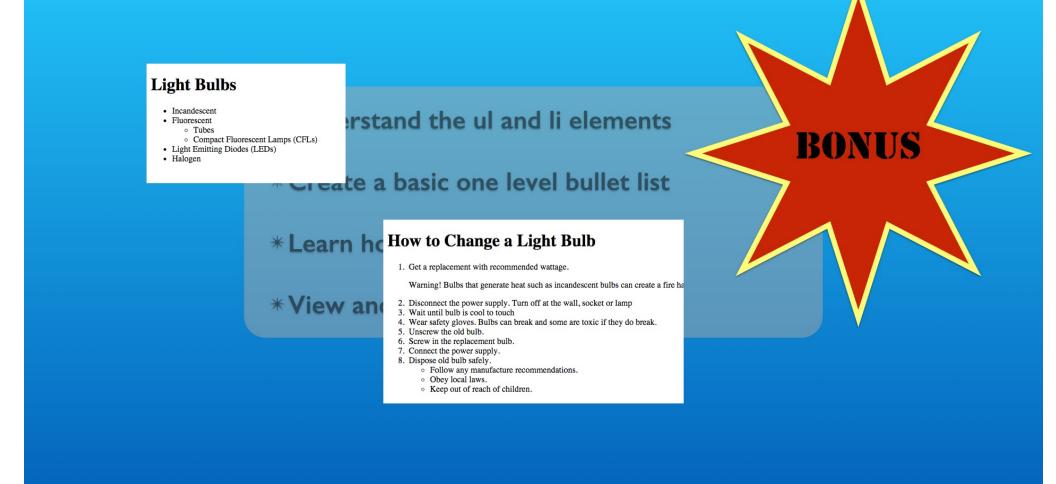
There are default bullet shapes assigned to each of the first three levels of nested lists. Then they are repeated for additional levels.



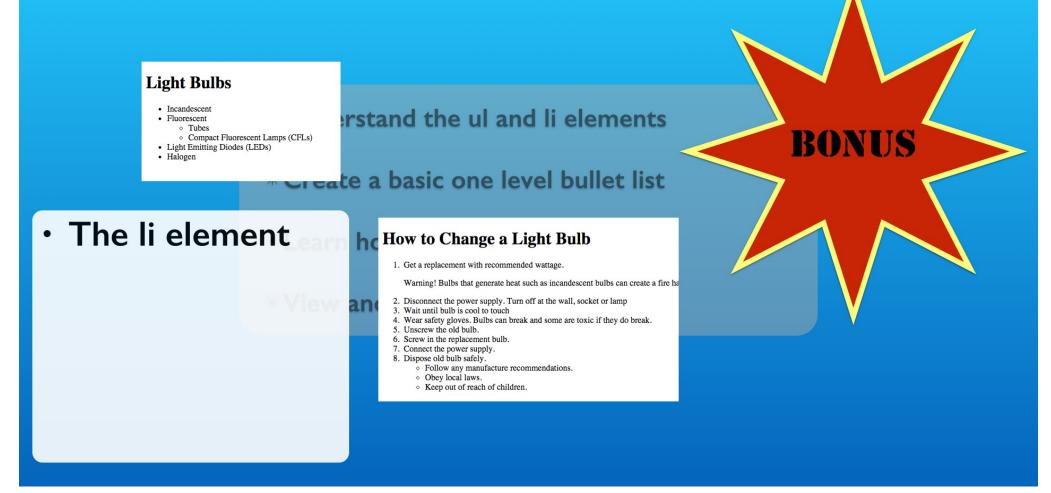
Our field trip to the web browser developer tools revealed the CSS property setting the bullet shapes. The values are defaulted by the web browser until we choose alternatives using CSS.



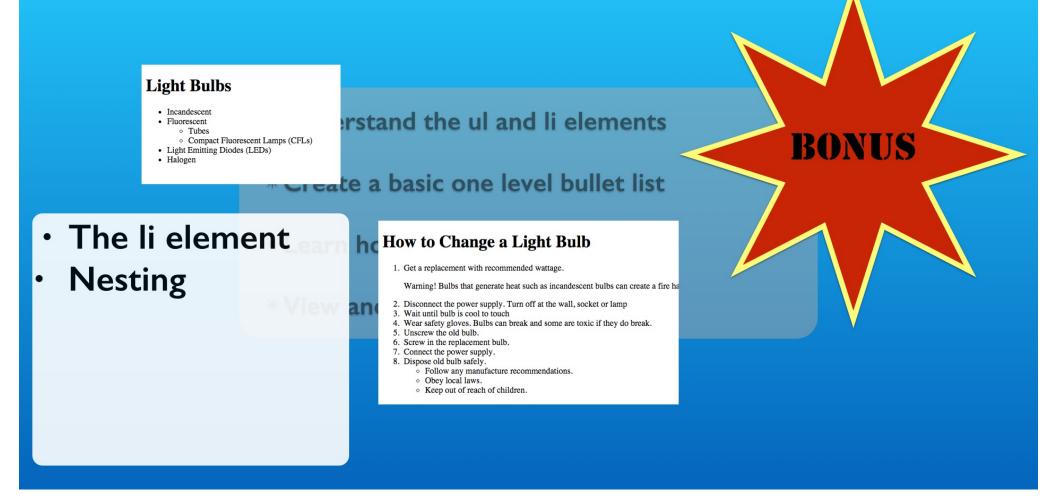
Also revealed is that the ul element has left padding applied by the web browser styling. The list bullets are positioned inside that padding area.



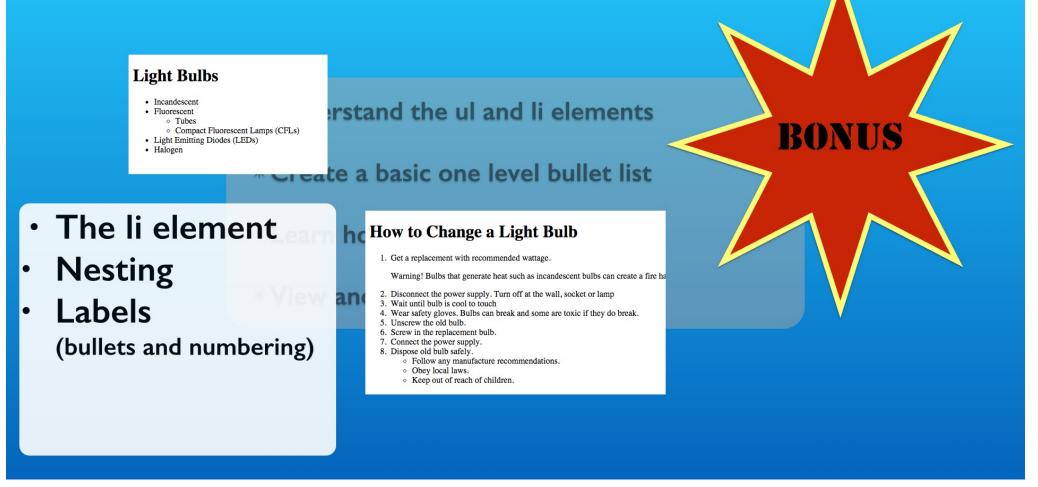
Much of what you learned with the ul element applies to the ol element used for auto numbering lists.



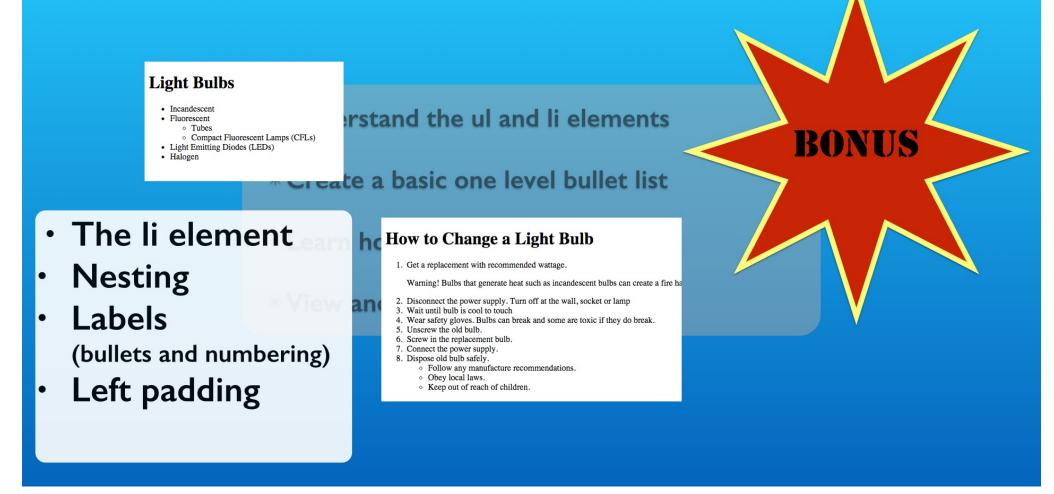
Both use the li element as their only inner element and no other content other than white space for code styling.



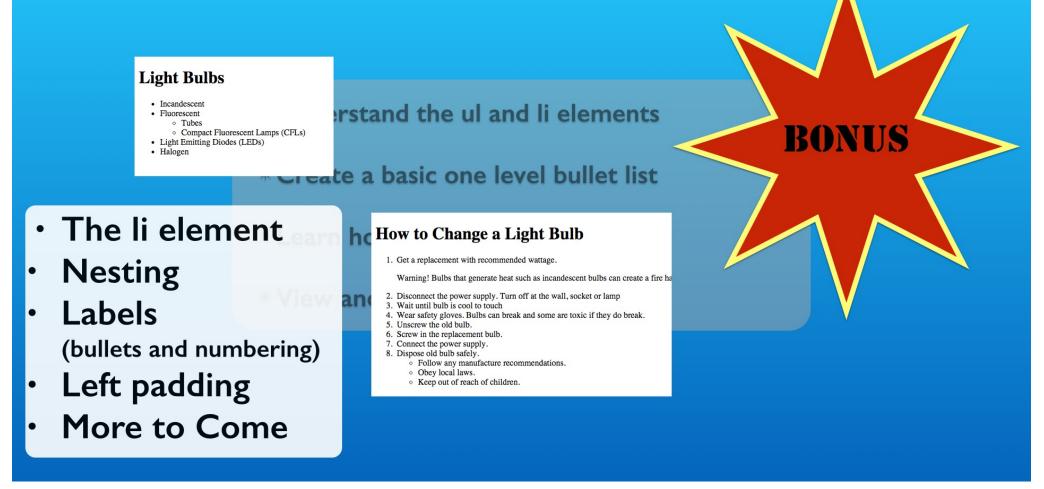
They can be interchangeably nested. A numbered list item can contain a bulleted list. And a bulleted list item can contain a numbered list.



Both have default list item labels. The ul element uses bullet shapes and ol elements use numbers.



Both ul and ol elements have a left padding where the list item labels are positioned.



There are some additional twists that relate to only ol elements that we will take on in another exercise. So try it out while you are fresh on the trail of learning about HTML lists using the lesson in this section.

# **How To Create Unordered HTML Lists**

With Lon Hosford

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