



编程入门班

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www.jiangren.com.au

Pre-reading Materials

W3Schools

<https://www.w3schools.com/html>

HTML Wiki

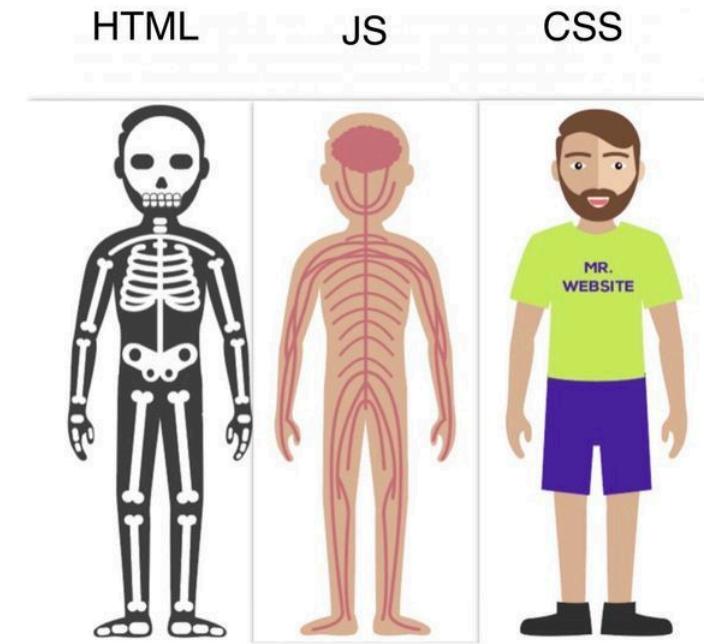
<https://en.wikipedia.org/wiki/HTML>

HTML + CSS + JS

HTML : Content Structure

CSS : Content Presentation

JS : Content Behaviour ? Everything !



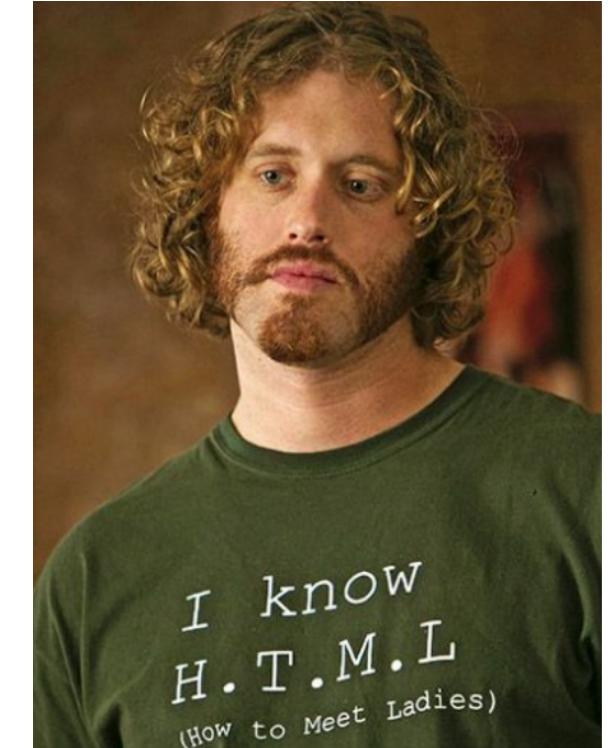
Ref: <https://www.pinterest.ca/pin/571183165342554995/?autologin=true>

1. What is HTML

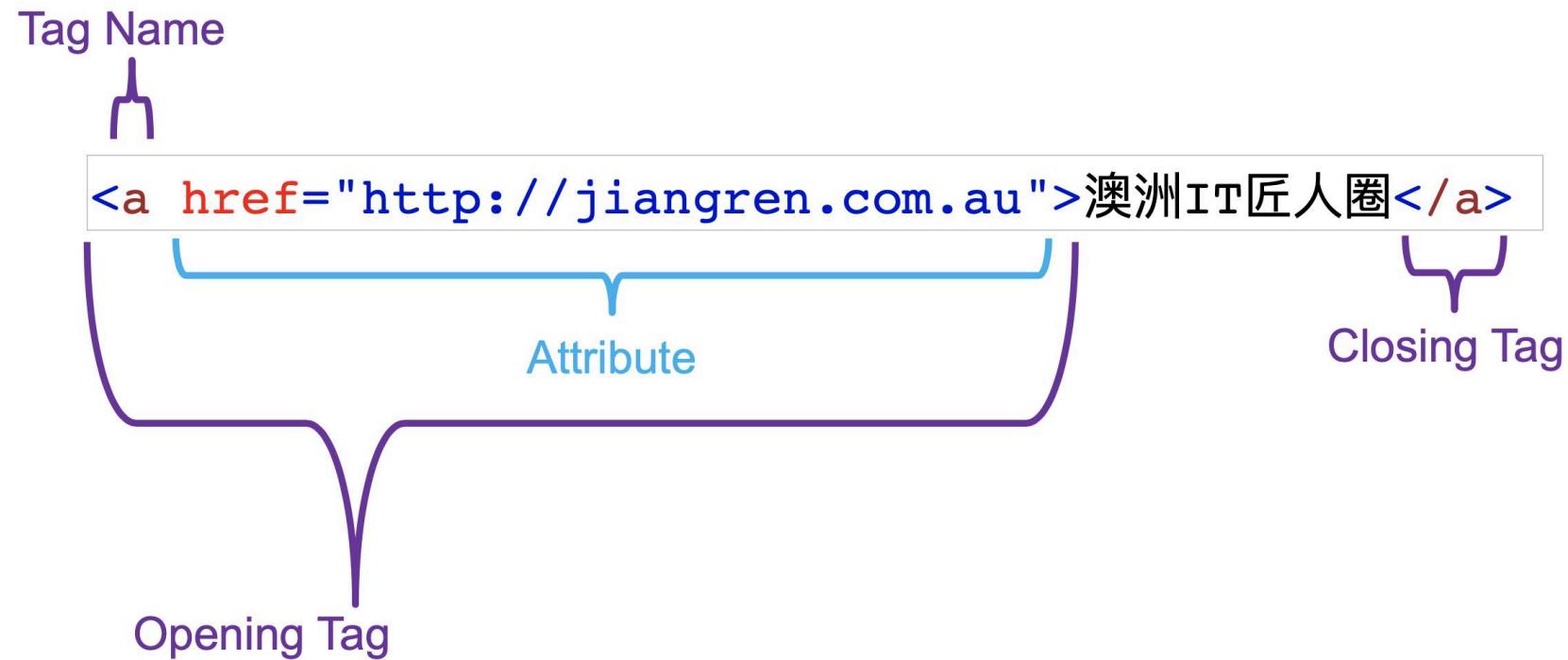
HyperText Markup Language

HTML structure and define content *semantically*.

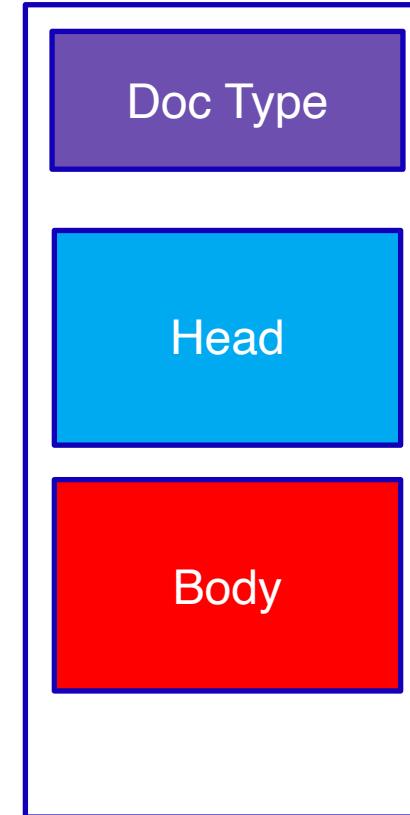
Interview Tips: HTML is Not a fully programming language



Syntax & Element

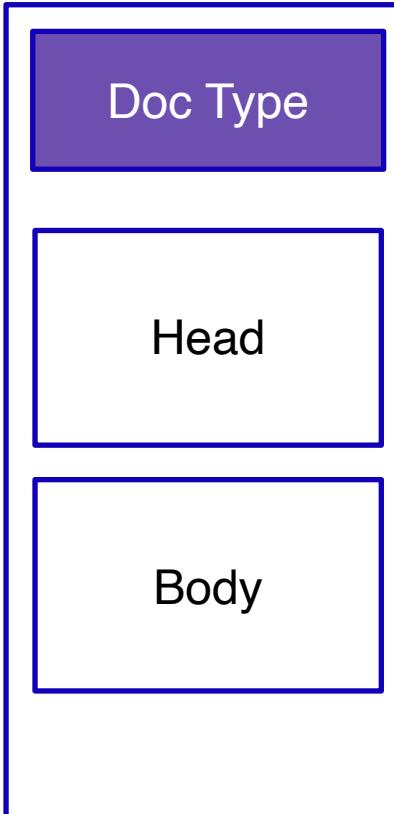


HTML Layout



```
<!DOCTYPE html>
<html>
  <head>
    <title>Title</title>
  </head>
  <body>
    <div>Content</div>
  </body>
</html>
```

HTML Layout



```
<!DOCTYPE html>  
  
<html>  
  
    <head>  
        <title>Title</title>  
  
    </head>  
  
    <body>  
        <div>Content</div>  
  
    </body>  
  
</html>
```

Document Type Declaration

This info the browser where type of doc it is processing

Tips: Always on Top

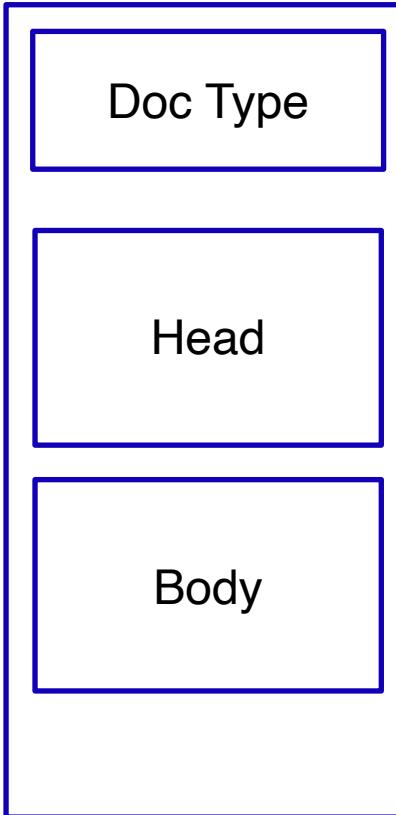
HTML5

```
<!DOCTYPE html>
```

HTML4

```
<!DOCTYPE HTML PUBLIC "-//  
W3C//DTD HTML 4.01//EN"  
"http://www.w3.org/TR/  
html4/strict.dtd">
```

HTML Layout

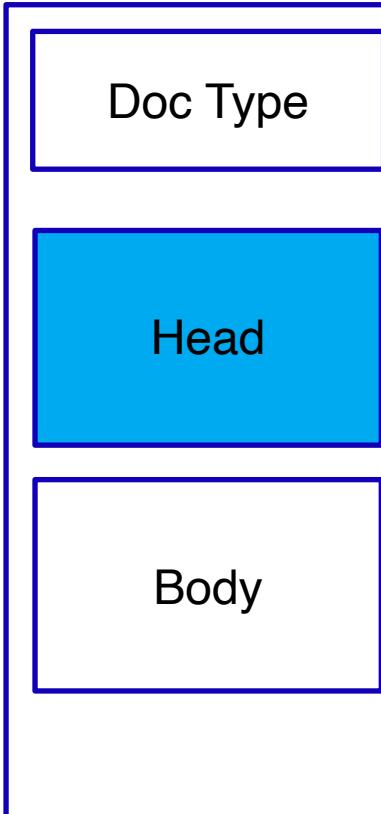


```
<!DOCTYPE html>  
<html>  
  <head>  
    <title>Title</title>  
  </head>  
  <body>  
    <div>Content</div>  
  </body>  
</html>
```

<html> tag

It wraps all contents of this page. It is the ROOT node.

Head



```
<!DOCTYPE html>  
<html>  
  <head>  
    <title>Title</title>  
  </head>  
  <body>  
    <div>Content</div>  
  </body>  
</html>
```

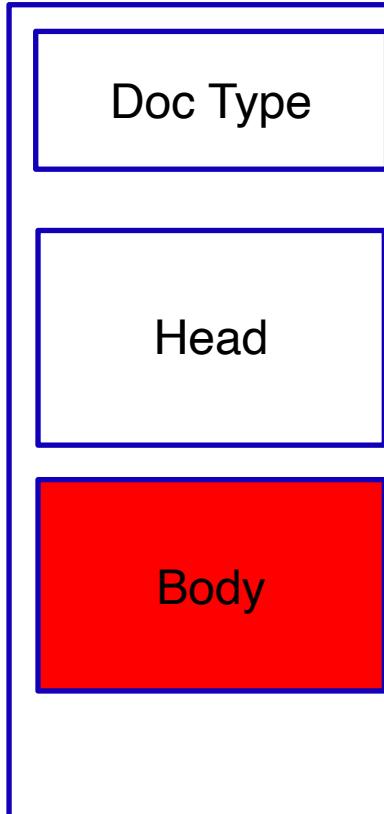
Head is used for the META information about the document but NOT showing to user in the content area.

document title, character set, viewport , favicon, styles, links, scripts, and other meta information.

Within Head

```
<title>          <title>Title on Browser</title>
<meta>           <meta charset="utf-8" />
<link>           <link rel="stylesheet" href="/w3css/4/w3.css" />
<style>          <style> body { color: white } </style>
<script>         <script src="/lib/w3schools_footer.js"></script>
<base>
```

Body

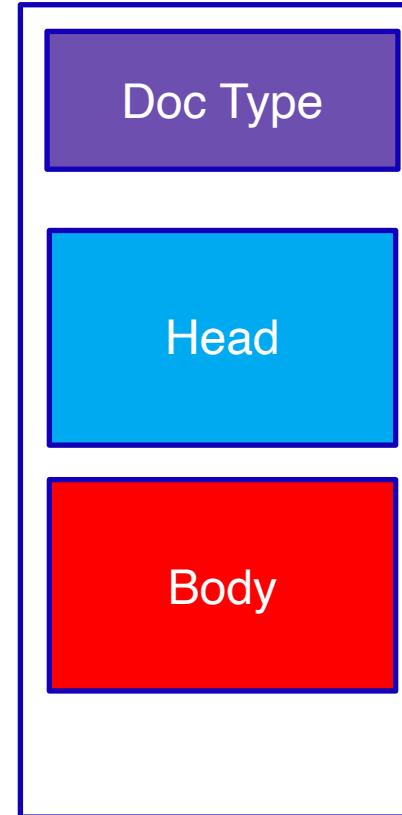


```
<!DOCTYPE html>  
<html>  
  <head>  
    <title>Title</title>  
  </head>  
  <body>  
    <div>Content</div>  
  </body>  
</html>
```

Body is the content of all the elements to show.

```
<h1> This is Header </h1>  
<a href="http://jiangren.com.au">匠人圈</a>  
<button type="button">Click Me!</button>
```

Summary



```
<!DOCTYPE html>
<html>
  <head>
    <title>Title</title>
  </head>
  <body>
    <div>Content</div>
  </body>
</html>
```

2. Block Elements VS Inline Elements

Block Elements

Block 1
Block 2
Block 3
Block 4

Inline Elements

Block 1 Block 2
Block 3 Block 4

Block Elements VS Inline Elements

Block Elements

```
<div> <header> <main> <nav> <section>  
<footer> <h1-6> <p> <ul> <ol> <li>  
<table> <form>
```

```
<canvas> <video> <output> <pre> <dd>  
<dl> <dt> <address> <article> <aside>  
<blockquote> <figcaption> <hr> <figure>  
<noscript> <fieldset>
```

Inline Elements

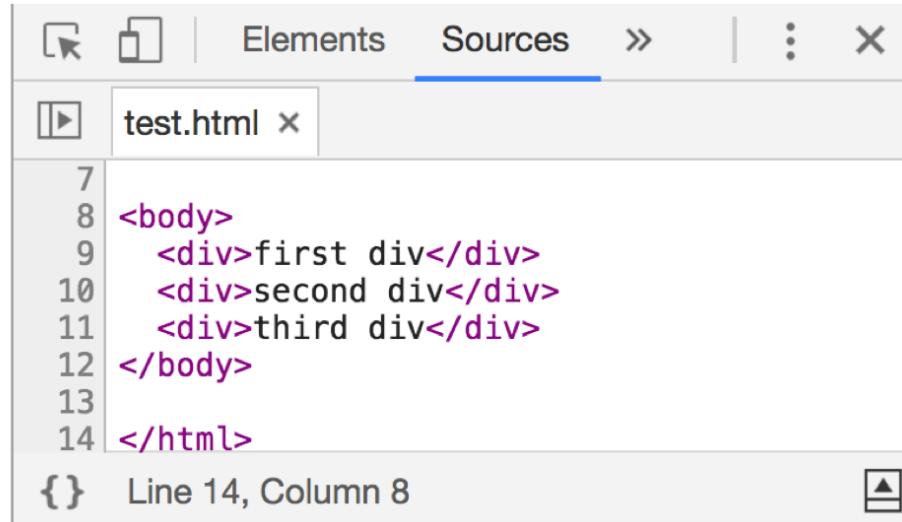
```
<a> <br> <b> <strong> <button> <img>  
<input> <label> <span> <script> <select>  
<textarea> <em> <i>
```

```
<abbr> <acronym> <bdo> <big> <cite>  
<code> <dfn> <kbd> <map> <object> <q>  
<samp> <small> <sub> <sup> <time> <tt>  
<var>
```

Div

div is a **block** element by default.

first div
second div
third div



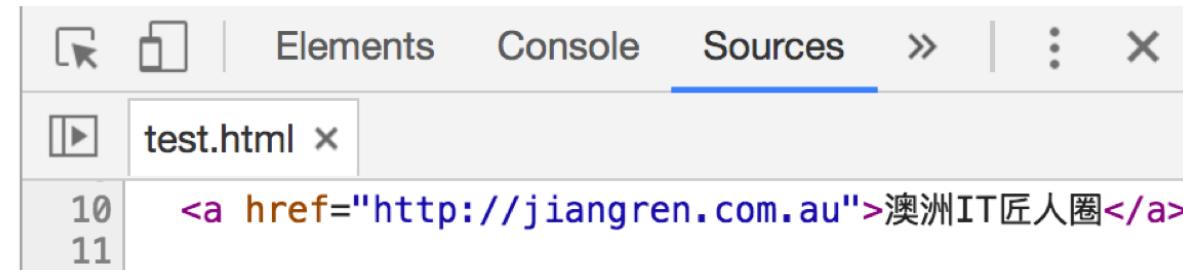
```
7 <body>
8   <div>first div</div>
9   <div>second div</div>
10  <div>third div</div>
11  </body>
12
13
14 </html>
```

{ } Line 14, Column 8

Link

Link is an inline element by default.

```
<a href="http://jiangren.com.au">澳洲IT匠人人圈</a>
```



The screenshot shows the Chrome DevTools interface with the 'Sources' tab selected. The left sidebar displays the URL '澳洲IT匠人人圈'. The main area shows the source code for 'test.html' with two lines of code:

```
10 <a href="http://jiangren.com.au">澳洲IT匠人人圈</a>
11
```

Link

Link is an inline element by default.

```
<a href="http://jiangren.com.au" target="_blank" >澳洲IT匠人人圈</a>
```

Value	Description
_blank	Opens the linked document in a new window or tab
_self	Opens the linked document in the same frame as it was clicked (this is default)
_parent	Opens the linked document in the parent frame
_top	Opens the linked document in the full body of the window
framename	Opens the linked document in a named frame

Text - Header

Header is a **block** element by default.

Header is define structure the hierarchy of the content

This is h1 header

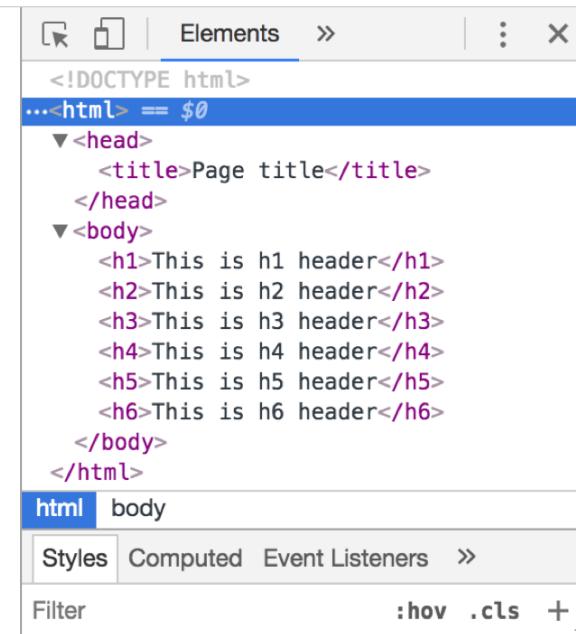
This is h2 header

This is h3 header

This is h4 header

This is h5 header

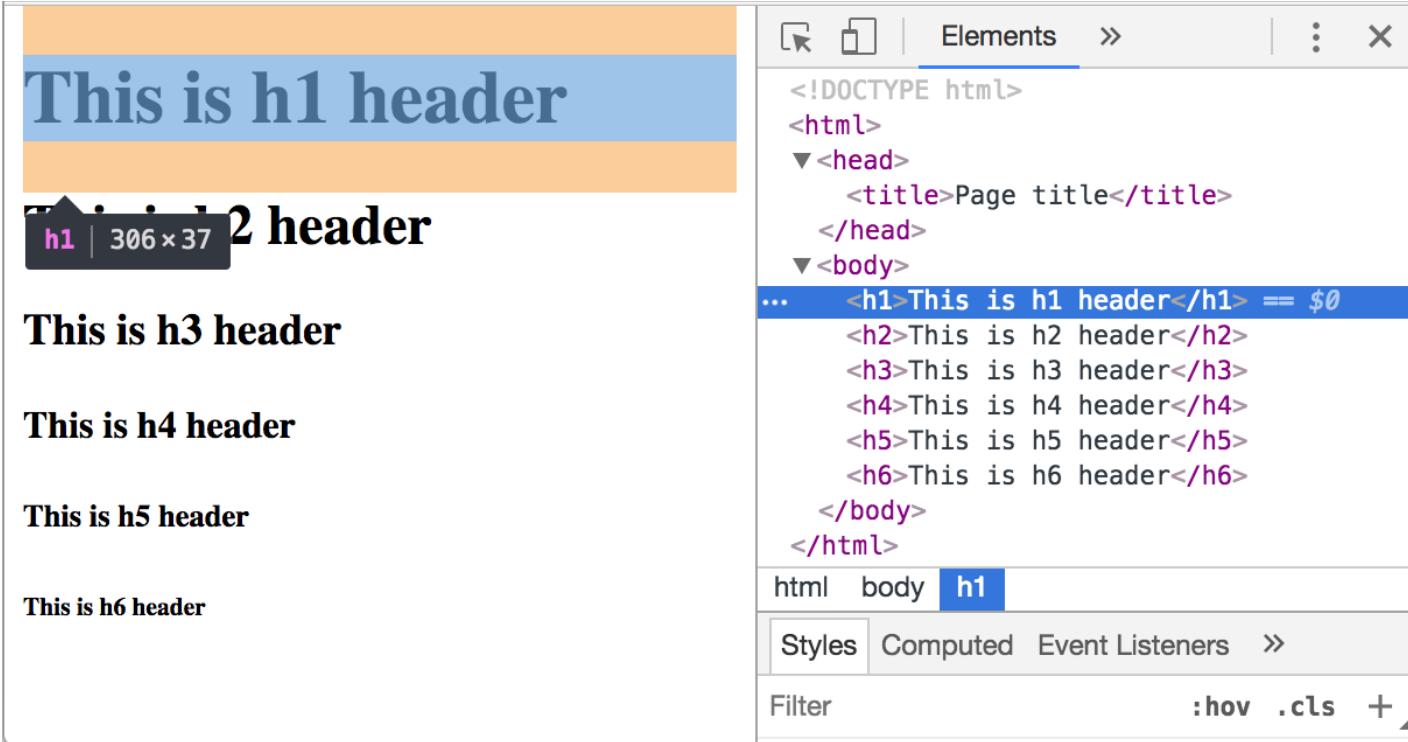
This is h6 header



The screenshot shows the Chrome DevTools Elements tab with the DOM tree. The tree starts with the <html> element, which contains a <head> section with a <title> element set to "Page title". Below the head is the <body> element, which contains six heading elements: <h1>, <h2>, <h3>, <h4>, <h5>, and <h6>. Each heading contains the text "This is h1 header" through "This is h6 header" respectively. At the bottom of the DevTools interface, there are tabs for "html" and "body", and a "Styles" panel with filters for ":hov", ".cls", and "+".

Text - Header

Header is define structure the hierarchy of the content



The screenshot shows a web page with the following content structure:

- This is h1 header** (Large blue header)
- This is h2 header** (Medium blue header)
- This is h3 header**
- This is h4 header**
- This is h5 header**
- This is h6 header**

Below the content, the browser's developer tools Elements tab is open, displaying the corresponding HTML code:

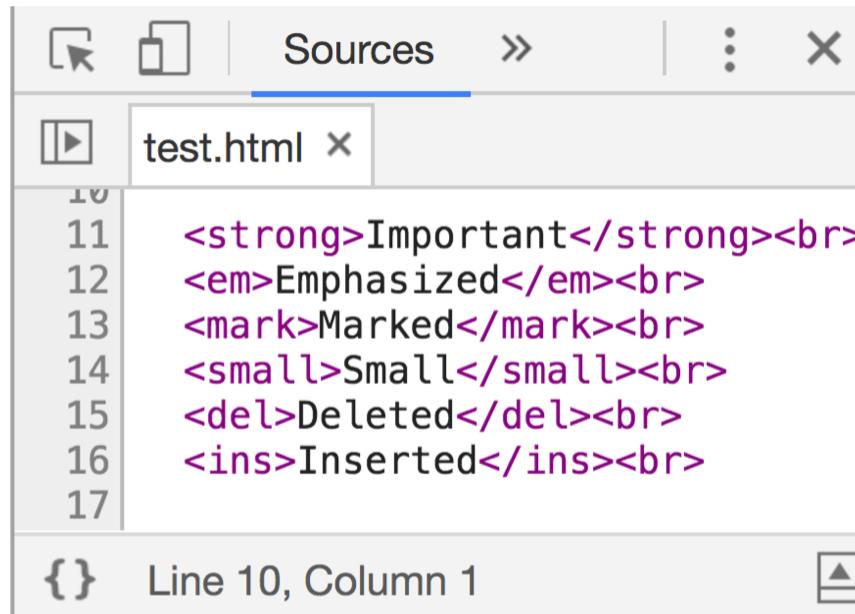
```
<!DOCTYPE html>
<html>
  <head>
    <title>Page title</title>
  </head>
  <body>
    ... <h1>This is h1 header</h1> == $0
    <h2>This is h2 header</h2>
    <h3>This is h3 header</h3>
    <h4>This is h4 header</h4>
    <h5>This is h5 header</h5>
    <h6>This is h6 header</h6>
  </body>
</html>
```

The **h1** element is highlighted in blue, indicating it is the active node in the DOM tree.

Text - Style

They are all inline elements by default.

Important
Emphasized
Marked
Small
~~Deleted~~
Inserted



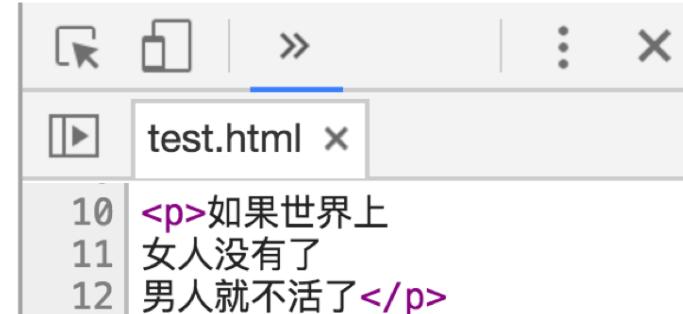
A screenshot of a code editor window titled "Sources" with the file "test.html" selected. The code editor shows the following content:

```
<strong>Important</strong><br>
<em>Emphasized</em><br>
<mark>Marked</mark><br>
<small>Small</small><br>
<del>Deleted</del><br>
<ins>Inserted</ins><br>
```

The code editor interface includes a toolbar with icons for back, forward, and search, and a status bar at the bottom indicating "Line 10, Column 1".

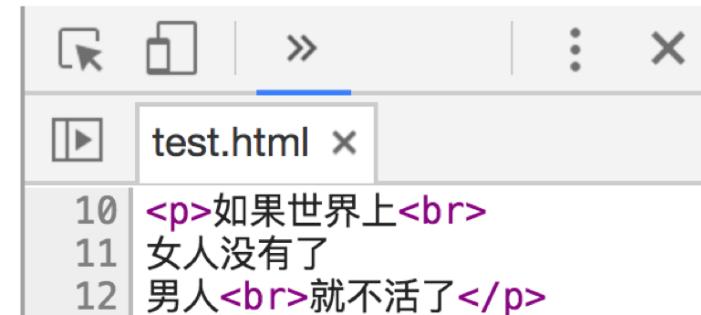
Text - Paragraph and Line Break

如果世界上女人没有了男人就不活了



```
10 <p>如果世界上  
11 女人没有了  
12 男人就不活了</p>
```

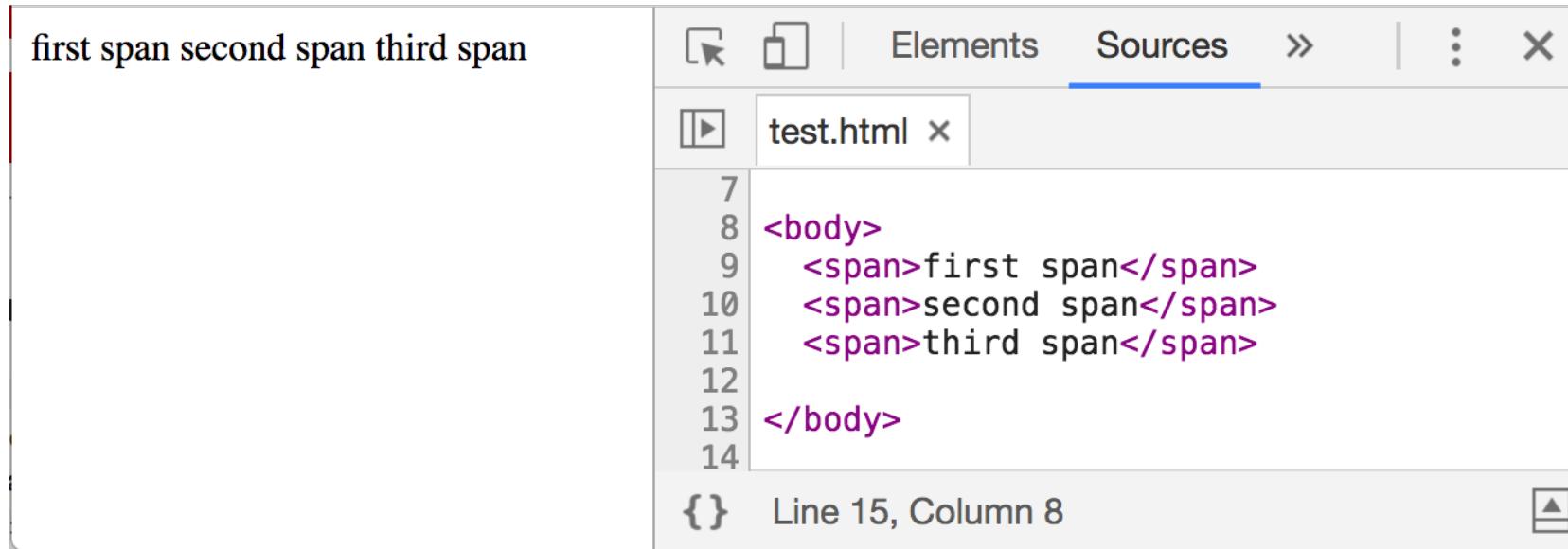
如果世界上
女人没有了男人
就不活了



```
10 <p>如果世界上<br>  
11 女人没有了  
12 男人<br>就不活了</p>
```

Span

span is an inline element by default.



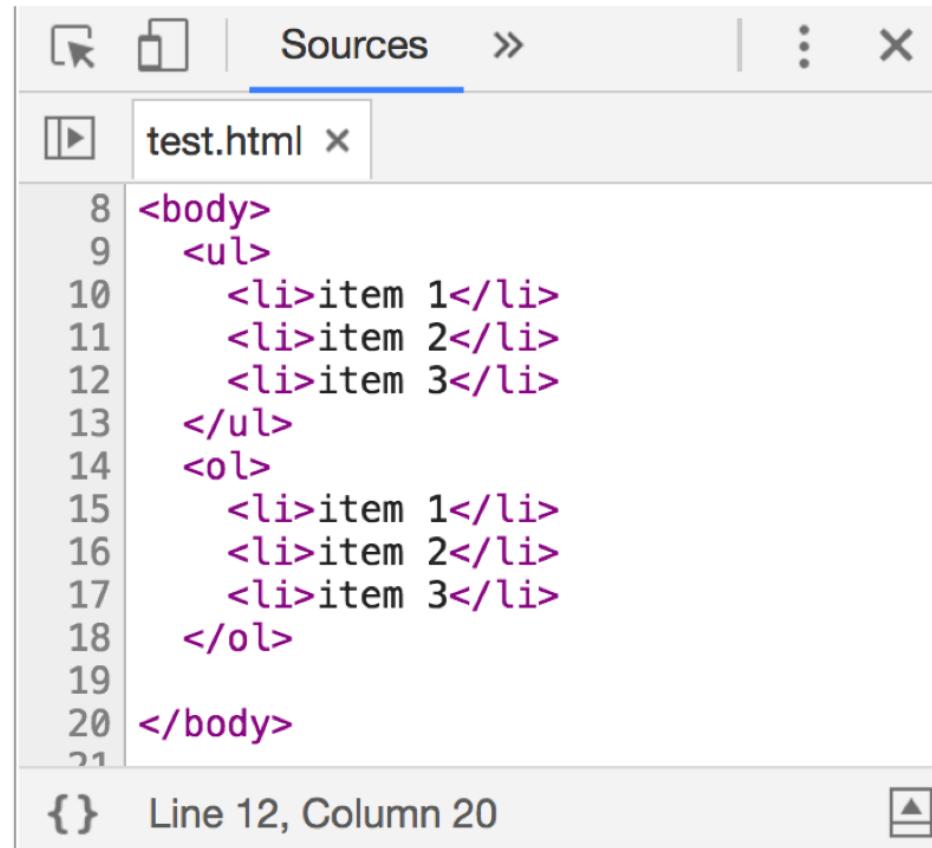
The screenshot shows a browser's developer tools open to the 'Sources' tab, displaying the content of a file named 'test.html'. The code is as follows:

```
7 <body>
8   <span>first span</span>
9   <span>second span</span>
10  <span>third span</span>
11
12
13 </body>
14
```

The status bar at the bottom indicates 'Line 15, Column 8'.

List

- item 1
 - item 2
 - item 3
1. item 1
 2. item 2
 3. item 3



The screenshot shows the 'Sources' tab of a browser developer tools interface. The file 'test.html' is open, displaying the following HTML code:

```
8 <body>
9   <ul>
10    <li>item 1</li>
11    <li>item 2</li>
12    <li>item 3</li>
13  </ul>
14  <ol>
15    <li>item 1</li>
16    <li>item 2</li>
17    <li>item 3</li>
18  </ol>
19
20 </body>
```

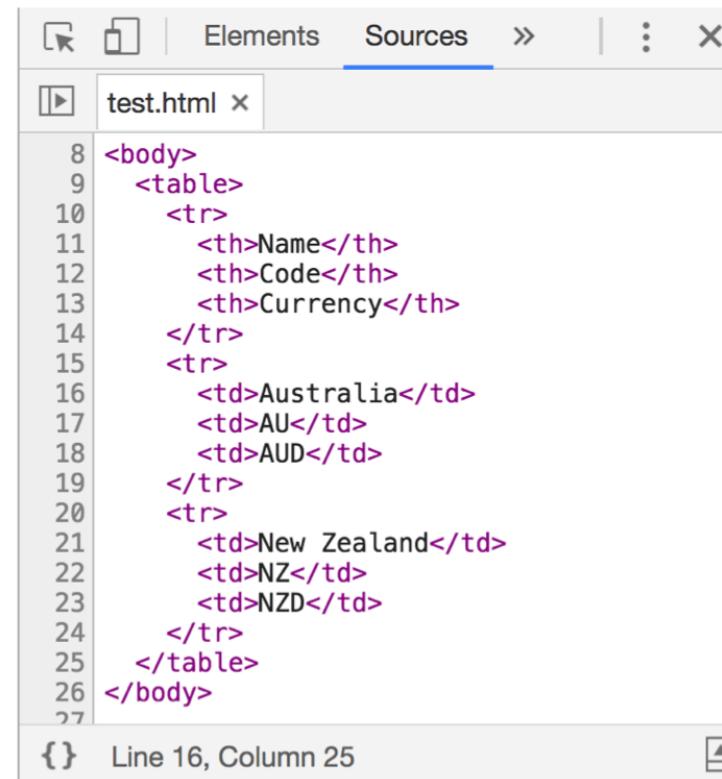
The status bar at the bottom indicates 'Line 12, Column 20'.

Both of them are block elements by default.

ul = Unsorted List
ol = Ordered List

Table

Name	Code	Currency
Australia	AU	AUD
New Zealand	NZ	NZD



The screenshot shows the 'Sources' tab of a browser developer tools interface. The file 'test.html' is open, displaying the following HTML code:

```
8 <body>
9   <table>
10    <tr>
11      <th>Name</th>
12      <th>Code</th>
13      <th>Currency</th>
14    </tr>
15    <tr>
16      <td>Australia</td>
17      <td>AU</td>
18      <td>AUD</td>
19    </tr>
20    <tr>
21      <td>New Zealand</td>
22      <td>NZ</td>
23      <td>NZD</td>
24    </tr>
25  </table>
26 </body>
27
```

The code is color-coded: purple for tags, pink for attributes, and blue for text content. The cursor is at Line 16, Column 25, which is the start of the 'NZ' text in the third data cell.

Table is a block element by default.

tr = table row
th = table header
td = table data

Comment

<!-- comment -->

Frist Section Title

This is frist paragraph

This is second paragraph

Second Section Title

This is frist paragraph

This is second paragraph

```
82    <!-- No Bdoy Can see me?-->
83    <!-- User Can see you -->
84    <div>
85        <div>
86            <!-- This is Frist Section -->
87            <h4>Frist Section Title</h4>
88            <p> This is frist paragraph</p>
89            <p> This is second paragraph</p>
90        </div>
91
92        <div>
93            <h4>Second Section Title</h4>
94            <p> This is frist paragraph</p>
95            <p> This is second paragraph</p>
96        </div>
97
```

Img

<!-- comment -->



澳洲 IT 匠人圈 澳洲 IT 匠人圈

```
128  
129  
130  
131  
132  
133  
134  
135   
136   
137  
138  
139  
140  
141
```


./ vs ../ vs /

Absolute Path vs Relative Path

Absolute Path: from Project Root - "/assets/img/logo.png"
From public web - "https://www.google.com/..."

Relative Path: start from same folder - "./assets/img/logo.png"
start from parent folder - "../assets/img/logo.png"

HTML5



A vocabulary and associated APIs for HTML and XHTML

New elements & New API

HTML5 Media

```
<audio controls="controls">
    <source src="audio.mp3" type="audio/mp3" />
    <source src="audio.ogg" type="audio/ogg" />
    Your browser does not support the <audio> tag.
</audio>

<video controls="controls" width="400" height="300">
    <source src="movie.mp4" type="audio/mp4" />
    <source src="media.ogg" type="audio/ogg" />
    Your browser does not support the <video> tag.
</audio>
```

Or, use <iframe> as the main choice!



Form & Input

First name:

Last name:

Lightman ▾

Click me to Submit

```
102
103 <form action=""> <!--Ignore now-->
104   First name:<br>
105   <input type="text" name="firstname" placeholder="placeholder">
106   <br>
107   Last name:<br>
108   <input type="text" name="lastname" value="Default Value" >
109   <br><br>
110
111   <br>
112
113   <select name="Tutor">
114     <option value="Lightman">Lightman</option>
115     <option value="Capsen">Capsen</option>
116     <option value="Billy">Billy</option>
117     <option value="Ding">Ding</option>
118   </select>
119   <br/>
120   <textarea name="message" rows="10" cols="30" >
121   </textarea>
122   <br/>
123   <input type="submit" value="Click me to Submit">
124 </form>
```

HTML5 Input

Name:

Email:

URL:

Age:

Description:

```
173 <form>
174   Name: <input name="name" required placeholder="Your name" />
175   <br/>
176   Email: <input type="email" name="email" required placeholder="billy.lei@jiangren.com.au"/>
177   <br/>
178   URL: <input type="url" name="url" placeholder="Homepage URL"/>
179   <br/>
180   Age: <input type="number" name="age" min="18" max="99" />
181   <br/>
182   Description: <textarea name="desc" placeholder="Describe yourself here..."></textarea>
183   <br/>
184   <input type="submit" value="Submit" />
185 </form>
```

HTML5 Best Practices

- HTML has a lot of similar elements. For example, p and div are very similar. But keep all the contents inside a meaningful tag.
- Indentation makes HTML more easy to read.
- Remembering some useful short-cut of few editors speeds up development.
- Syntax highlighted editor helps you to find the errors.

HTML5 Best Practices - Bad Example



Free Style HTML

This is frist paragraph and I love freeStyle

This is second paragraph and I still love freeStyle

```
98    <p>
99    <p>
100   <p style="font-weight:bold;">Free Style HTML</p>
101   <p> This is frist paragraph and I love freeStyle</p>
102   <p> This is second paragraph and Do you freestyle</p>
103   </p>
104   </p>
105
106  </div>
```

Homework

Project header + footer

Reference

Official Reference

<https://www.w3.org/wiki/Html/Elements/>

W3 Schools

<https://www.w3schools.com/html/>



jiangren.com.au
facebook.com/jiangrenquan
weibo.com/ozitquan
meetup.com/en-AU/itgroup/