

# CSCI 1120- Introduction to Computing

---

## HTML: Images, Links, Lists

---

Xin Yang

Jan 9th, 2019

# HTML Images

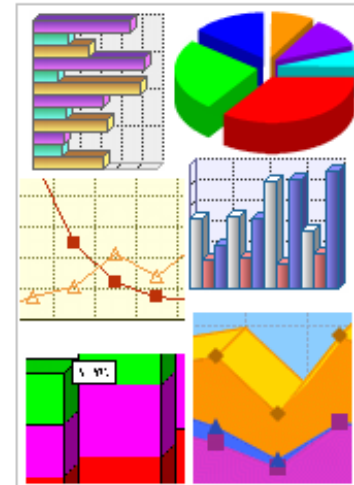
JPG Images



GIF Images



PNG Images



# HTML Images Syntax

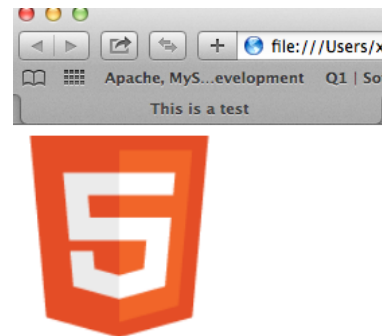
- ▶ In HTML, images are defined with the `<img>` tag.
- ▶ The `<img>` tag is empty, it contains **attributes** only, and **does not have a closing tag**.
- ▶ The **alt** attribute specifies an alternate text for an image, if the image cannot be displayed.

# Image Size - Width and Height

- ▶ You can use the **style** attribute to specify the **width** and **height** of an image.
- ▶ The values are specified in **pixels**.

# HTML Images

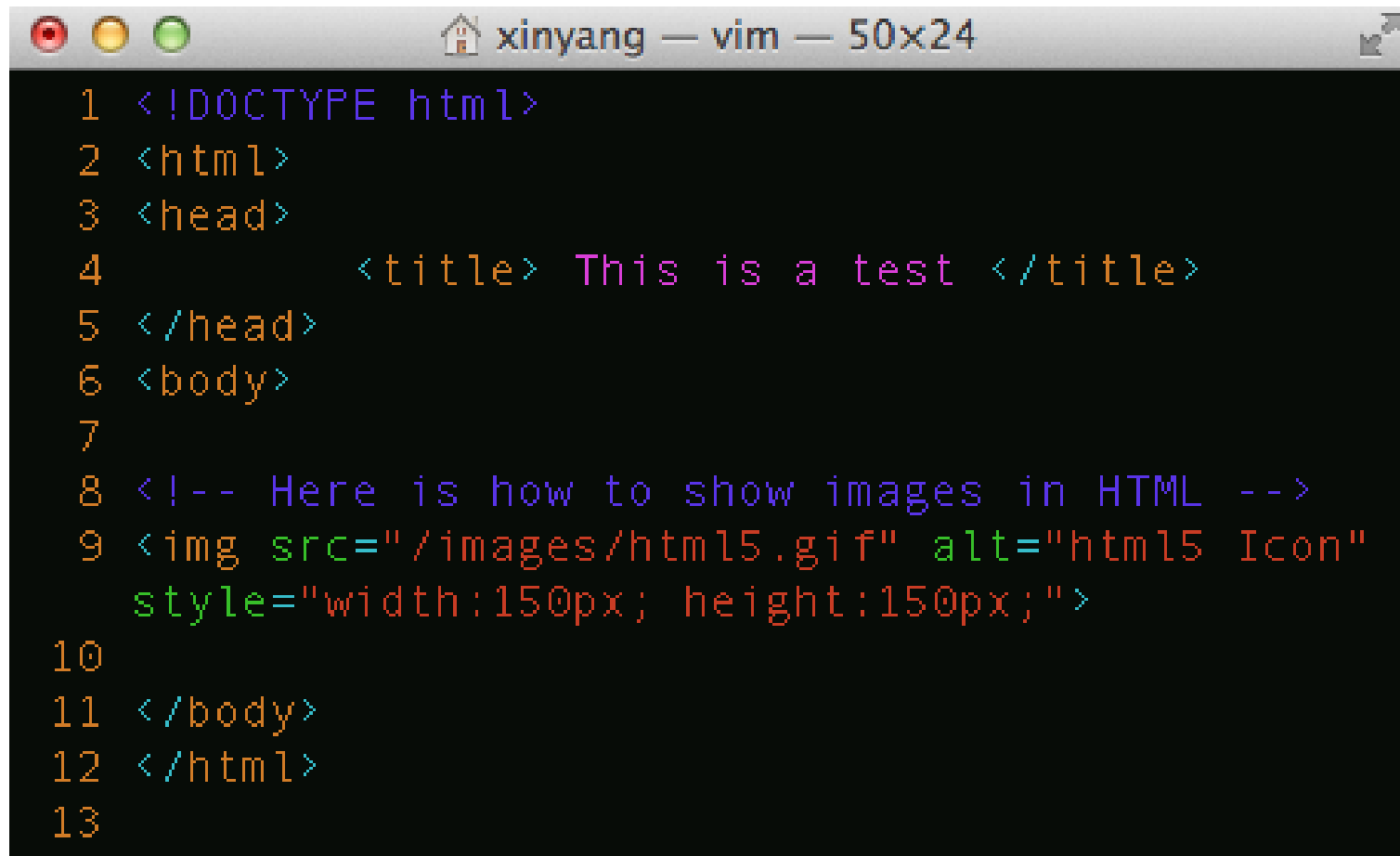
```
xinyang — vim — 50x24
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to show images in HTML -->
9 
10
11 </body>
12 </html>
13
```



## Images in Another Folder

- ▶ If not specified, the browser expects to find the image in the same folder as the web page.
- ▶ However, it is common to store images in a **sub-folder**. You must then include the folder name in the src attribute.

## Images in Another Folder



```
xinyang — vim — 50x24
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to show images in HTML -->
9 
11 </body>
12 </html>
13
```

# Images Links - Hyperlinks

- ▶ HTML links are [hyperlinks](#).
- ▶ A hyperlink is a text or an image you can click on, and jump to another document.



## Images Links - Syntax

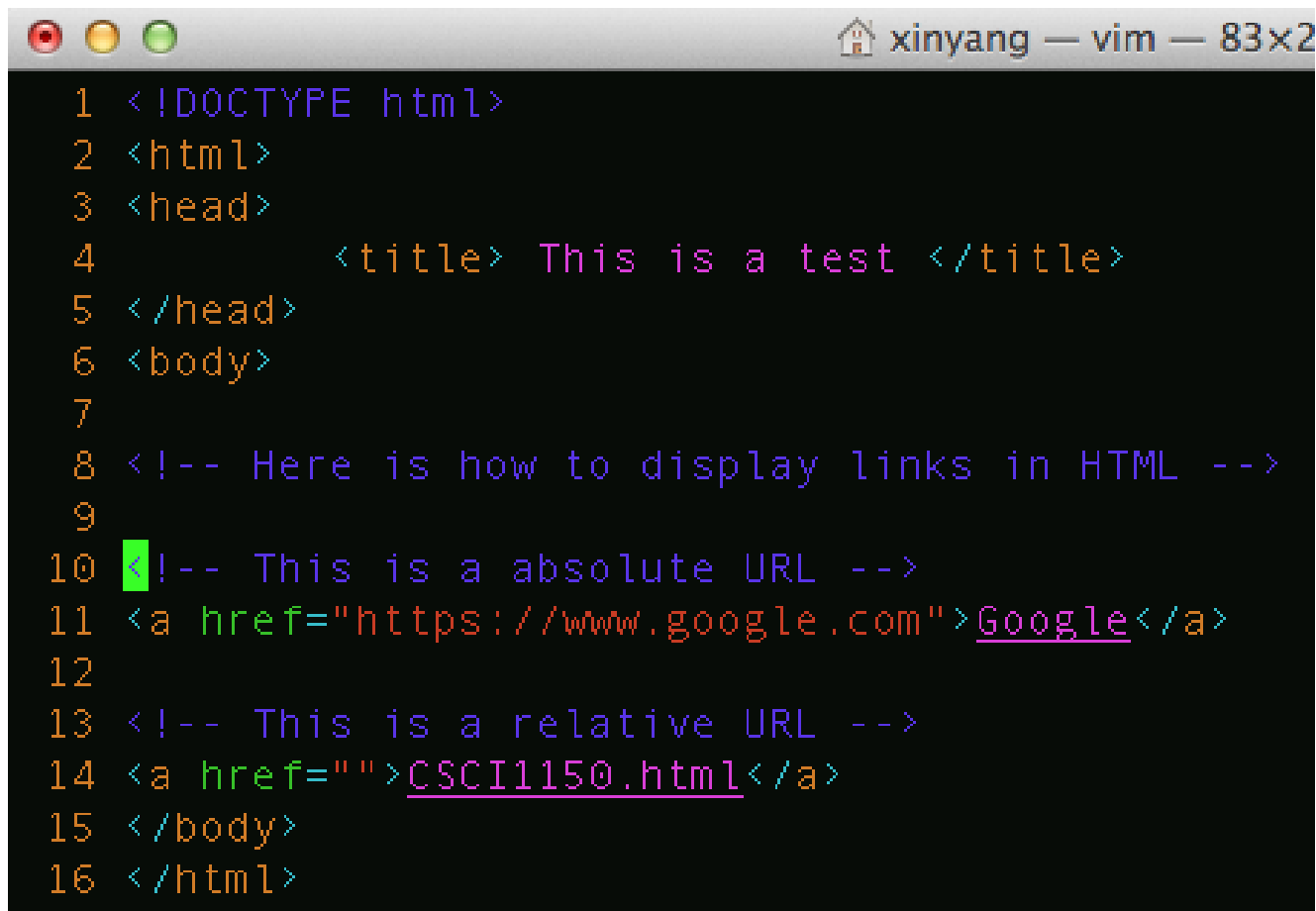
- ▶ In HTML, links are defined with the `<a>` tag.
- ▶ The `href` attribute specifies the destination address.
- ▶ The link text is the **visible part**.
- ▶ Here we use **absolute URL** (a full web address)

A screenshot of a vim editor window. The title bar at the top shows a home icon, the name 'xinyang', the editor 'vim', and the window size '83x2'. The editor has a dark background with syntax-highlighted text. The text is an HTML document with 12 lines. Line 1: <!DOCTYPE html> (purple). Line 2: <html> (orange). Line 3: <head> (orange). Line 4: <title> This is a test </title> (purple). Line 5: </head> (orange). Line 6: <body> (orange). Line 7: (empty line). Line 8: <!-- Here is how to display links in HTML --> (purple). Line 9: <a href="https://www.google.com">Google</a> (orange for href, purple for Google). Line 10: (empty line). Line 11: </body> (orange). Line 12: </html> (orange). At the bottom right, there are several small icons for navigation and editing.

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to display links in HTML -->
9 <a href="https://www.google.com">Google</a>
10
11 </body>
12 </html>
```

## Local Links

- ▶ A local link (link to the same web site) is specified with a relative URL.



```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to display links in HTML -->
9
10 <!-- This is a absolute URL -->
11 <a href="https://www.google.com">Google</a>
12
13 <!-- This is a relative URL -->
14 <a href="">CSCI1150.html</a>
15 </body>
16 </html>
```

# Local Links

- ▶ A local link (link to the same web site) is specified with a relative URL.

```
Desktop — vim — 92x30
<!DOCTYPE html>
<html>
  <!-- This is an example for the online class MCIS 5113 -->
  <!-- Instructor: Xin Yang Summer I 2017 -->

  <head>
    <title>This is a test webpage</title>
  </head>

  <body>
    <!--This is an absolute URL -->
    <a href="https://www.google.com">Google</a>

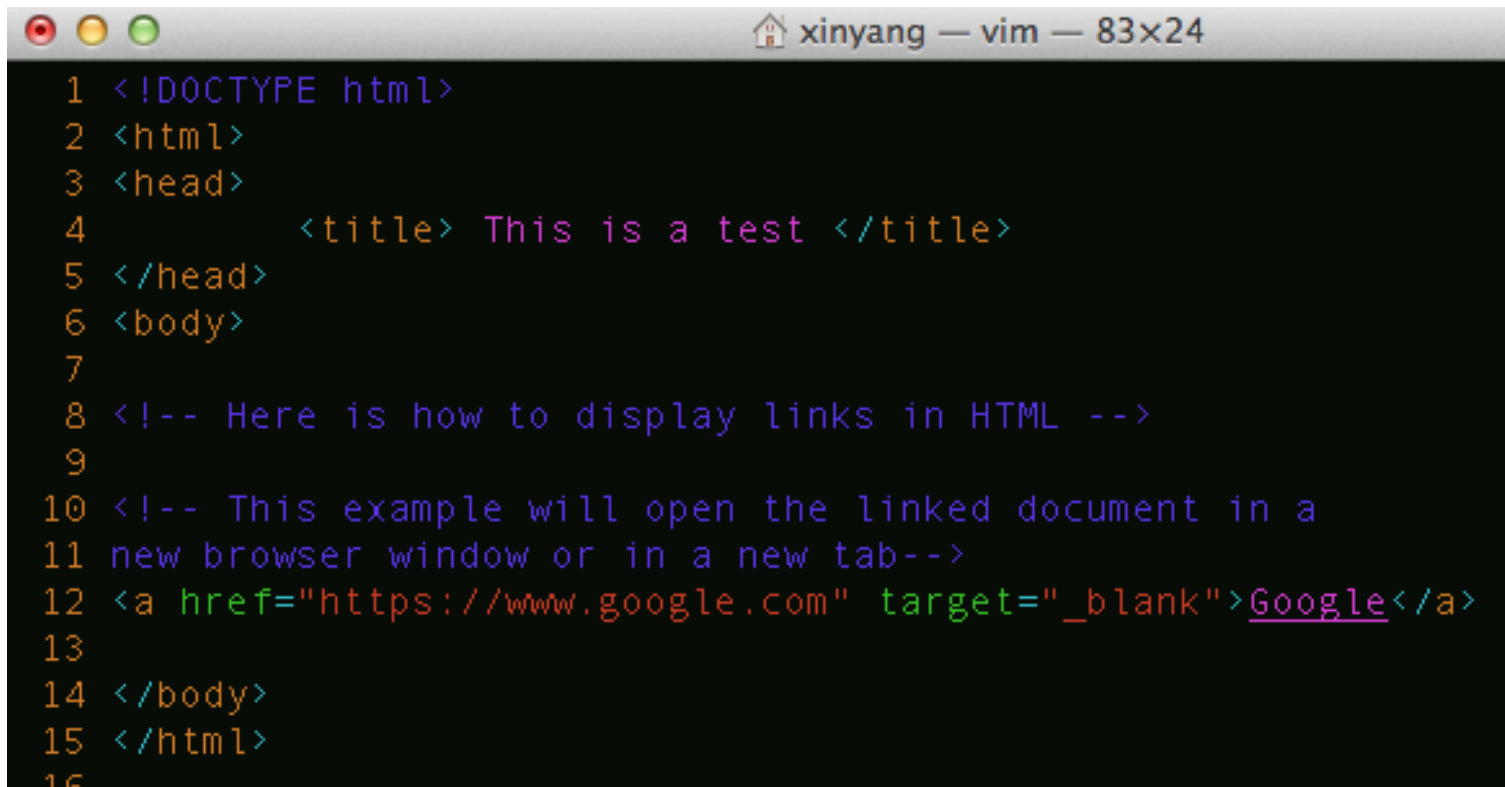
    <!-- This is a relative URL -->
    <a href="test.html">I love cats!</a>

    <!-- This is self introduction -->
    <h1> I love cats! </h1>
    <br>
    
  </body>

</html>
```

# HTML Links - The target Attribute

- ▶ The **target** attribute specifies where to open the linked document.



```
xinyang — vim — 83x24
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to display links in HTML -->
9
10 <!-- This example will open the linked document in a
11 new browser window or in a new tab-->
12 <a href="https://www.google.com" target="_blank">Google</a>
13
14 </body>
15 </html>
16
```

# HTML Links - Image as Link

- It is common to use [images as links](#).

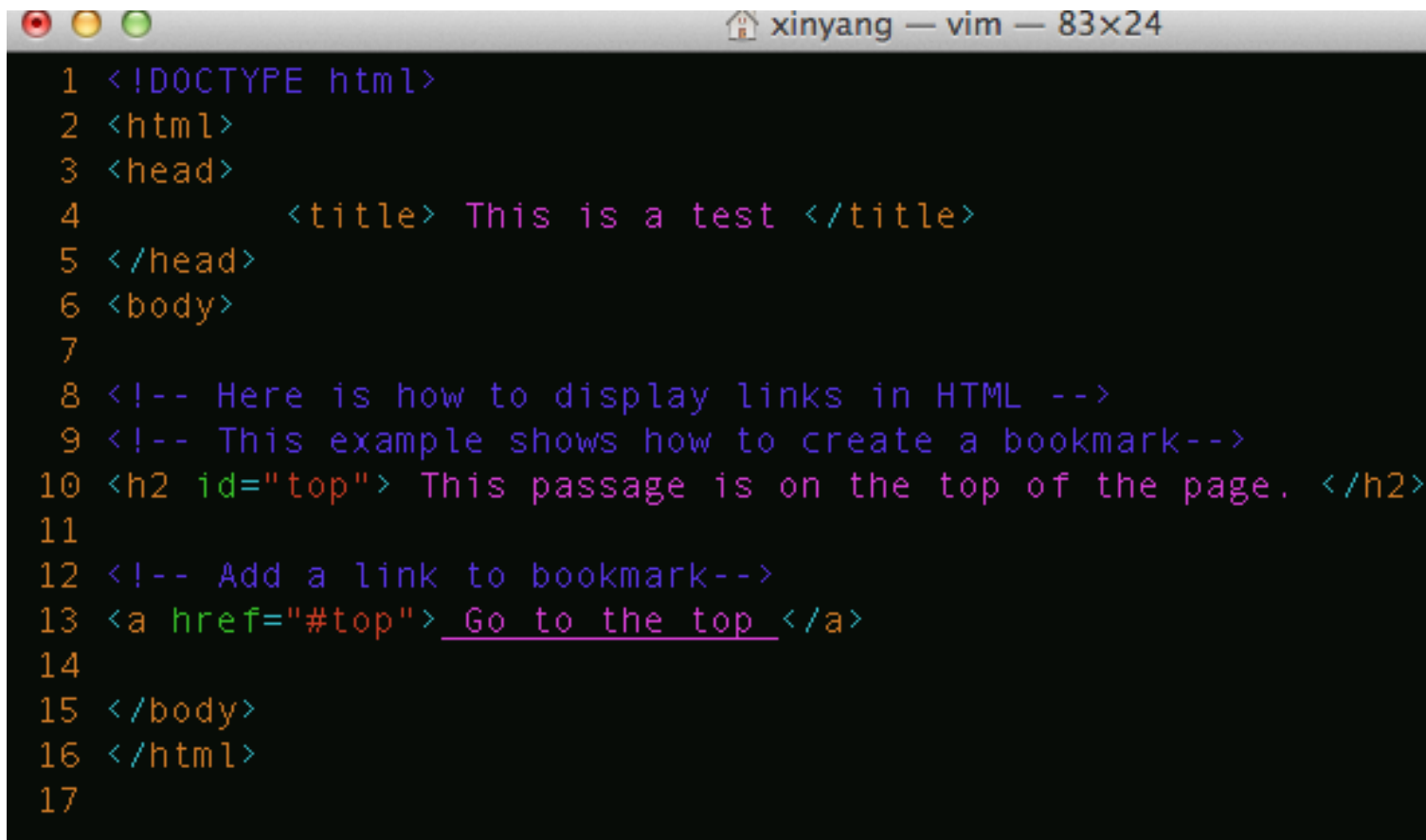
```
xinyang — vim — 83x24
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to display links in HTML -->
9
10 <!-- This example shows how to use images as links-->
11 <a href="https://cs.mtsu.edu/~xy2e/CSCI1150.html">
12 
13 </a>
14 </body>
15 </html>
16
~
```

# HTML Links - Create a Bookmark

- ▶ HTML **bookmarks** are used to allow readers to jump to specific parts of a Web page.
- ▶ Bookmarks are practical if your website has long pages.

## HTML Links - Create a Bookmark

- ▶ To make a bookmark, you must first create the bookmark, and then add a link to it.



```
xinyang — vim — 83x24
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to display links in HTML -->
9 <!-- This example shows how to create a bookmark-->
10 <h2 id="top"> This passage is on the top of the page. </h2>
11
12 <!-- Add a link to bookmark-->
13 <a href="#top"> Go to the top </a>
14
15 </body>
16 </html>
17
```

# HTML Lists

Example of an unordered list and an ordered list in HTML:

## Unordered List:

- Item
- Item
- Item
- Item

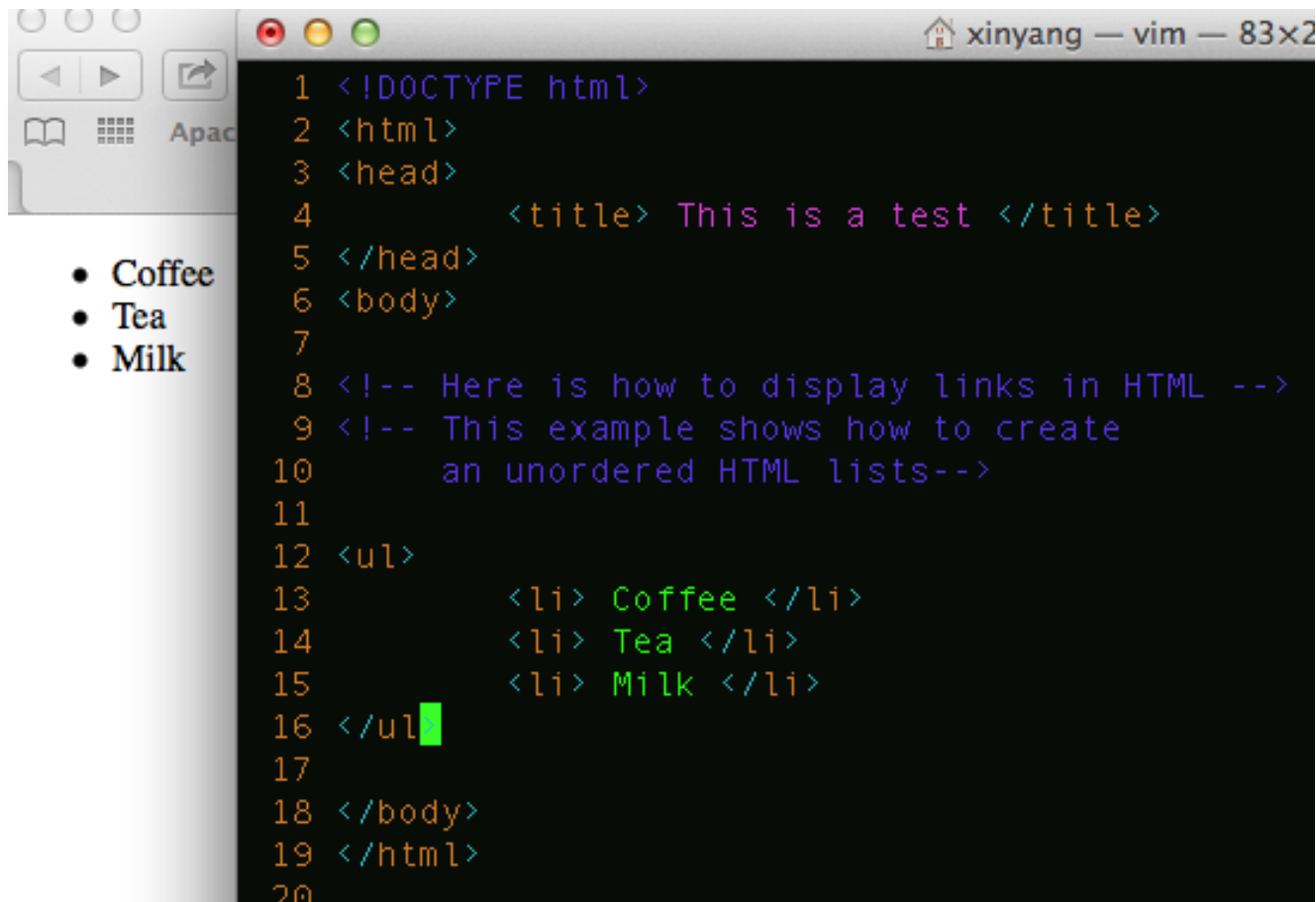
## Ordered List:

1. First item
2. Second item
3. Third item
4. Fourth item



# HTML Lists - Unordered HTML Lists

- ▶ An unordered list starts with the `<ul>` tag.
- ▶ Each list item starts with the `<li>` tag.



The image shows a web browser window on the left and a code editor window on the right. The browser window displays an unordered list with three items: Coffee, Tea, and Milk. The code editor window shows the HTML code for this list, including the DOCTYPE declaration, head, body, and the use of the `<ul>` and `<li>` tags to create the list.

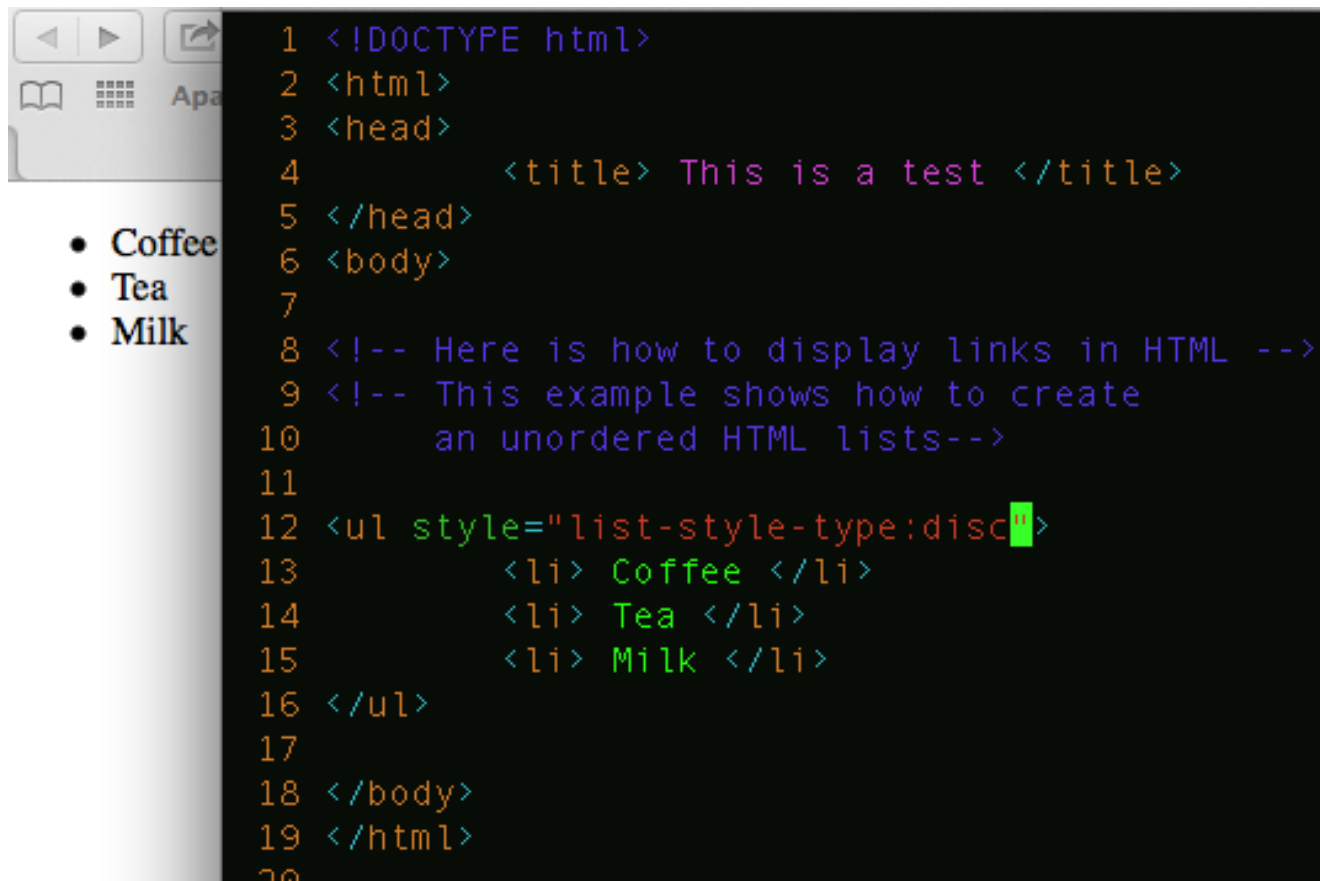
```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to display links in HTML -->
9 <!-- This example shows how to create
10     an unordered HTML lists-->
11
12 <ul>
13     <li> Coffee </li>
14     <li> Tea </li>
15     <li> Milk </li>
16 </ul>
17
18 </body>
19 </html>
20
```

# Unordered HTML Lists - The Style Attribute

- ▶ A style attribute can be added to an unordered list, to define the style of the marker:

Style	Description
list-style-type:disc	The list items will be marked with bullets (default)
list-style-type:circle	The list items will be marked with circles
list-style-type:square	The list items will be marked with squares
list-style-type:none	The list items will not be marked

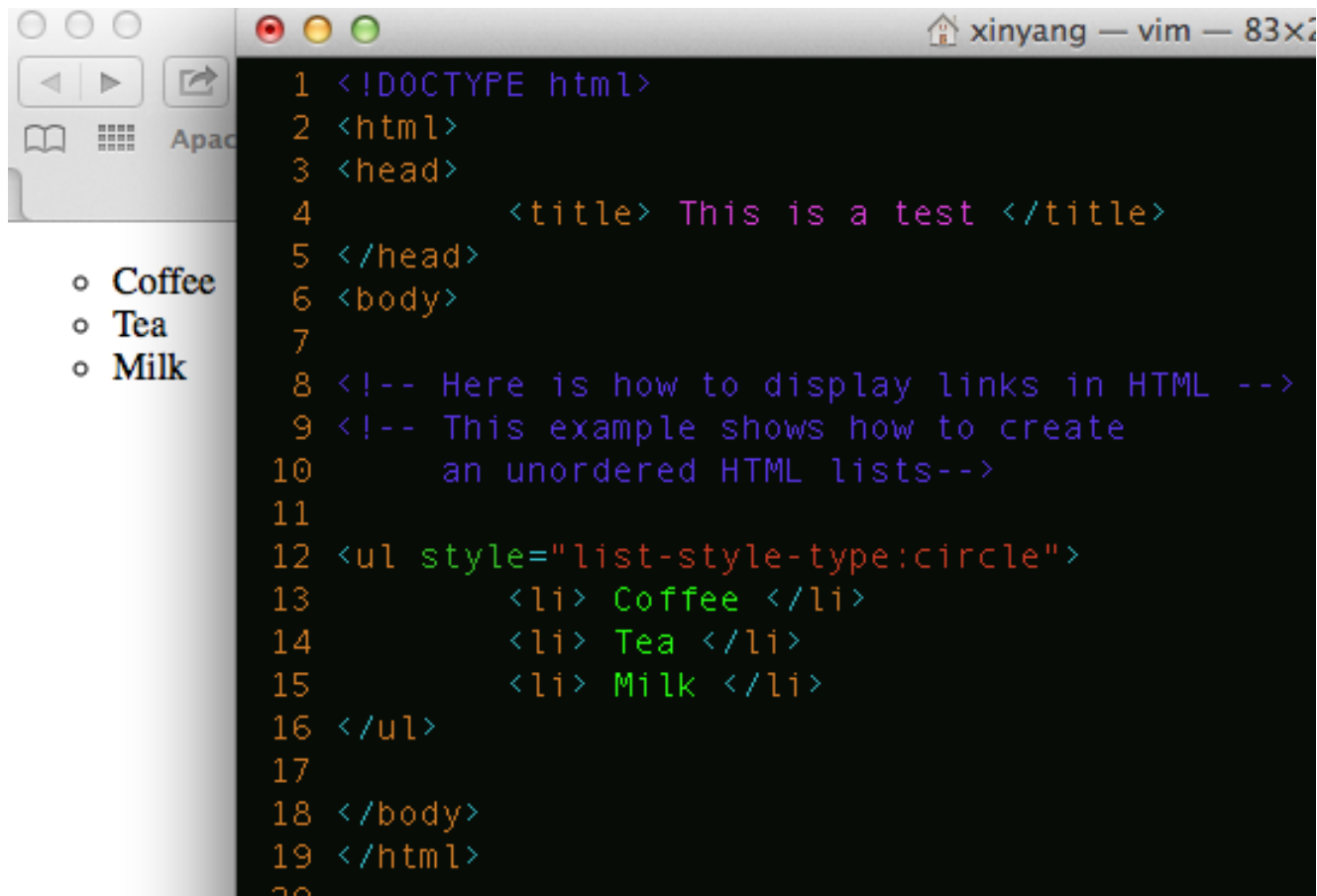
# Unordered HTML Lists - list-style-type:disc



The image shows a web browser window with a dark-themed code editor. On the left, a rendered HTML list is visible, featuring three items: Coffee, Tea, and Milk, each preceded by a black circular bullet point. The main area of the browser displays the HTML code used to create this list. The code is as follows:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to display links in HTML -->
9 <!-- This example shows how to create
10     an unordered HTML lists-->
11
12 <ul style="list-style-type:disc">
13     <li> Coffee </li>
14     <li> Tea </li>
15     <li> Milk </li>
16 </ul>
17
18 </body>
19 </html>
20
```

# Unordered HTML Lists - list-style-type:circle



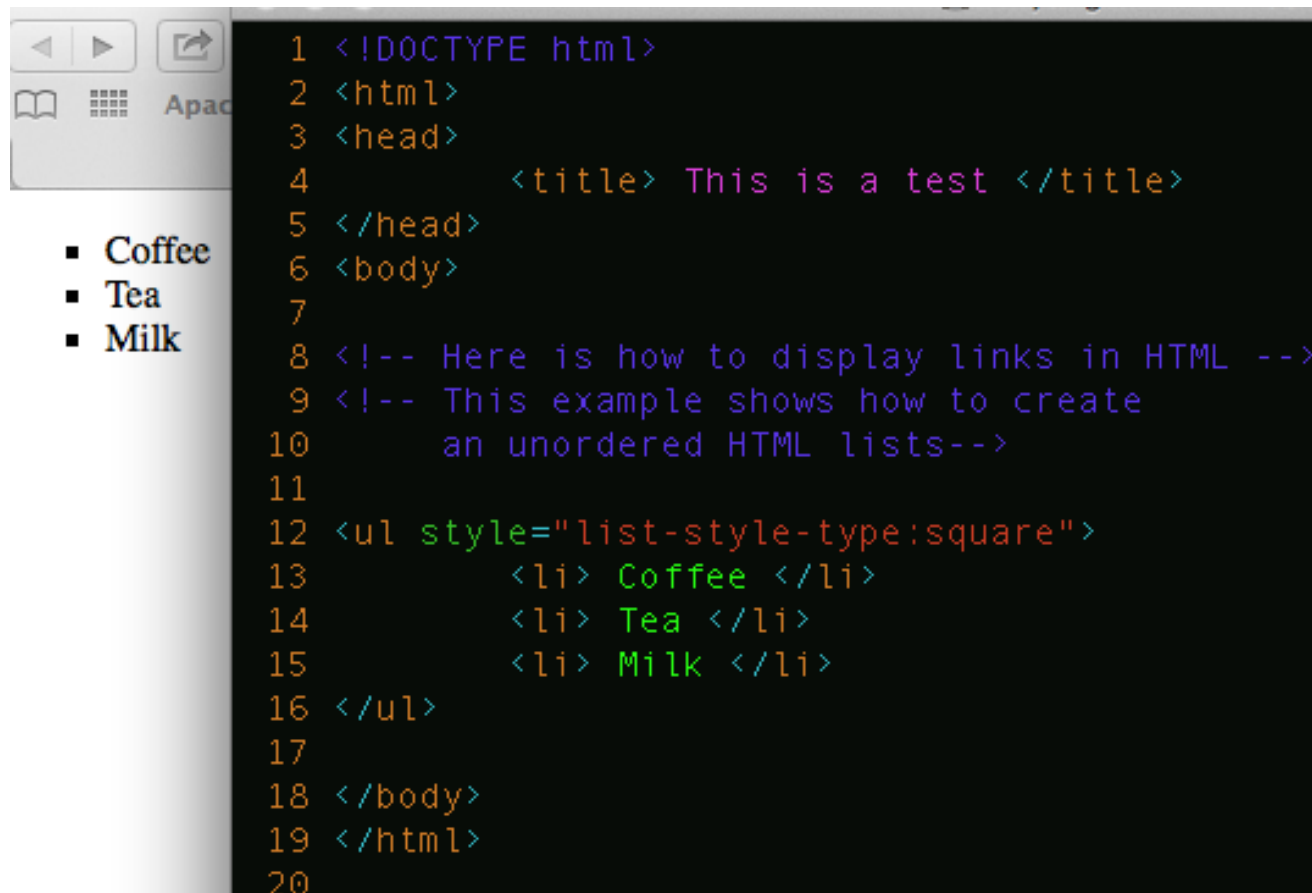
The screenshot shows a Vim editor window with a dark background. The title bar at the top reads 'xinyang — vim — 83x2'. The editor contains an HTML document with the following code:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to display links in HTML -->
9 <!-- This example shows how to create
10     an unordered HTML lists-->
11
12 <ul style="list-style-type:circle">
13     <li> Coffee </li>
14     <li> Tea </li>
15     <li> Milk </li>
16 </ul>
17
18 </body>
19 </html>
20
```

To the left of the editor, a portion of a web browser is visible, showing a list of items:

- Coffee
- Tea
- Milk

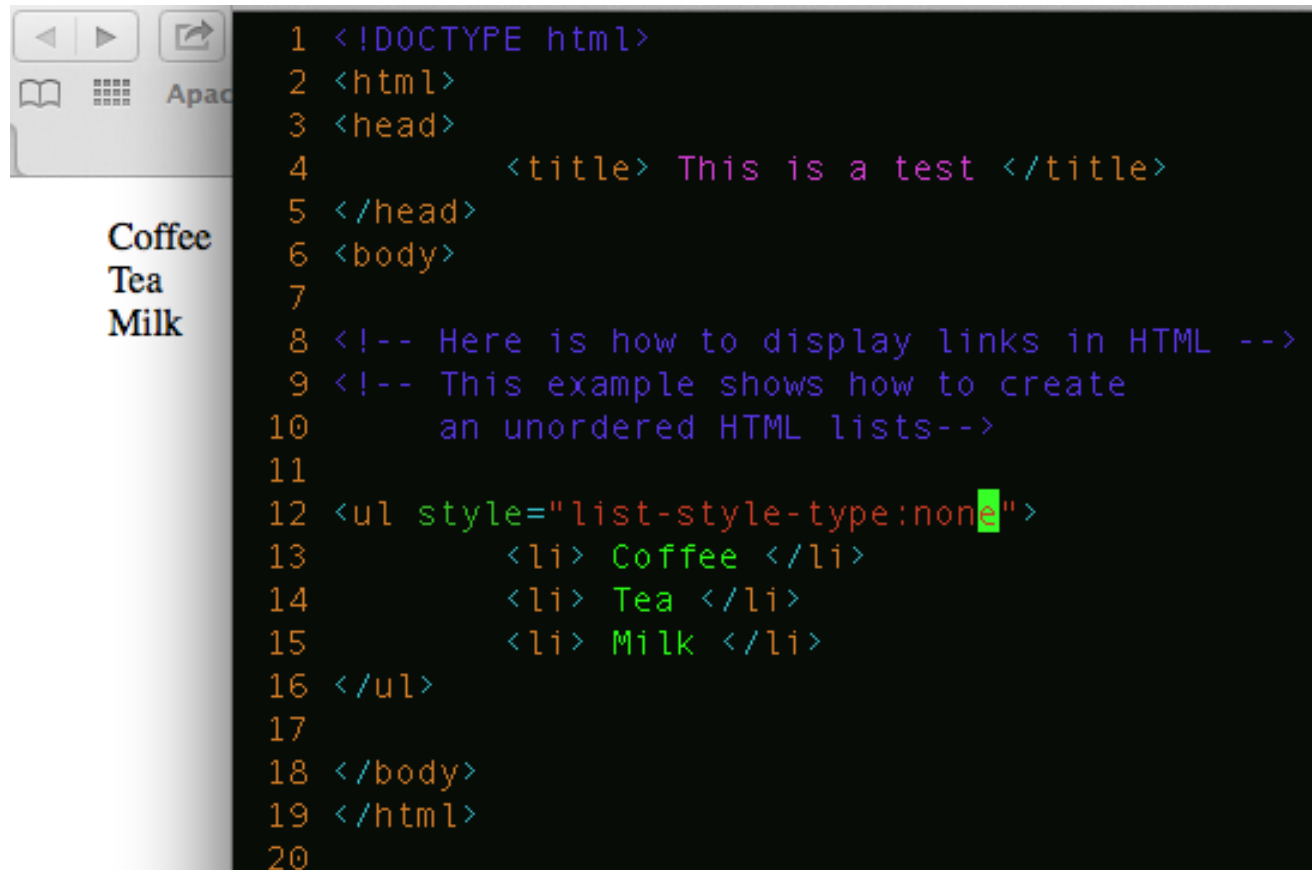
# Unordered HTML Lists - list-style-type:square



The screenshot shows a web browser window with a dark-themed code editor. On the left, a sidebar displays a list of items: Coffee, Tea, and Milk, each preceded by a square bullet point. The main area of the browser shows the HTML code used to create this list. The code is as follows:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to display links in HTML -->
9 <!-- This example shows how to create
10     an unordered HTML lists-->
11
12 <ul style="list-style-type:square">
13     <li> Coffee </li>
14     <li> Tea </li>
15     <li> Milk </li>
16 </ul>
17
18 </body>
19 </html>
20
```

# Unordered HTML Lists - list-style-type:none

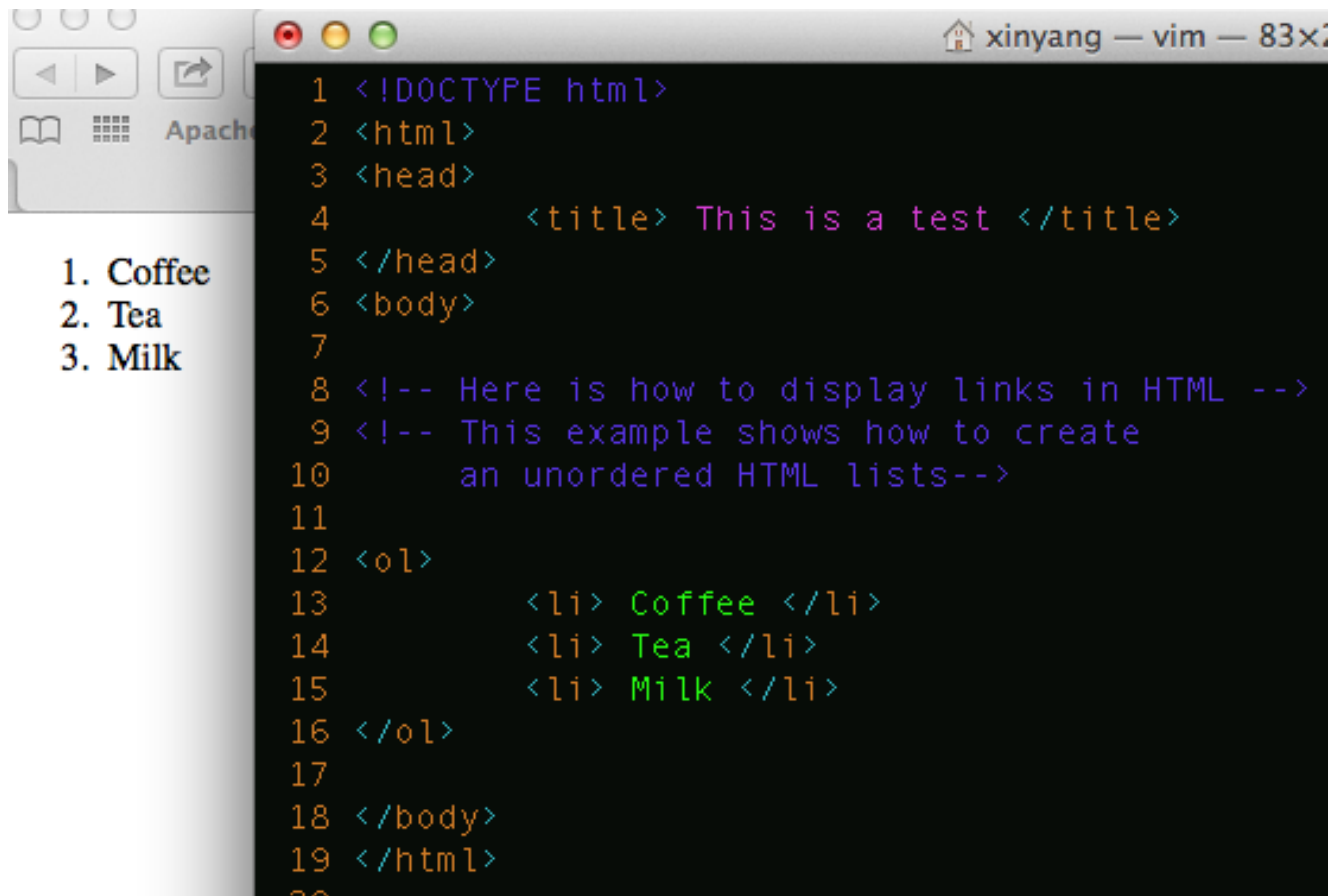


The screenshot shows a web browser window with a dark-themed code editor. The code is an HTML document that demonstrates an unordered list with no bullet points. The browser's address bar shows 'Apac'. The list items are 'Coffee', 'Tea', and 'Milk', which are displayed without any bullet points. The code is as follows:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to display links in HTML -->
9 <!-- This example shows how to create
10     an unordered HTML lists-->
11
12 <ul style="list-style-type:none">
13     <li> Coffee </li>
14     <li> Tea </li>
15     <li> Milk </li>
16 </ul>
17
18 </body>
19 </html>
20
```

# HTML Lists - Ordered HTML Lists

- ▶ An ordered list starts with the `<ol>` tag.
- ▶ Each list item starts with the `<li>` tag.



The image shows a side-by-side comparison of a rendered HTML document and its source code. On the left, a web browser window displays an ordered list with three items: "1. Coffee", "2. Tea", and "3. Milk". On the right, a code editor window titled "xinyang — vim — 83x1" shows the corresponding HTML code. The code is as follows:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to display links in HTML -->
9 <!-- This example shows how to create
10     an unordered HTML lists-->
11
12 <ol>
13     <li> Coffee </li>
14     <li> Tea </li>
15     <li> Milk </li>
16 </ol>
17
18 </body>
19 </html>
```

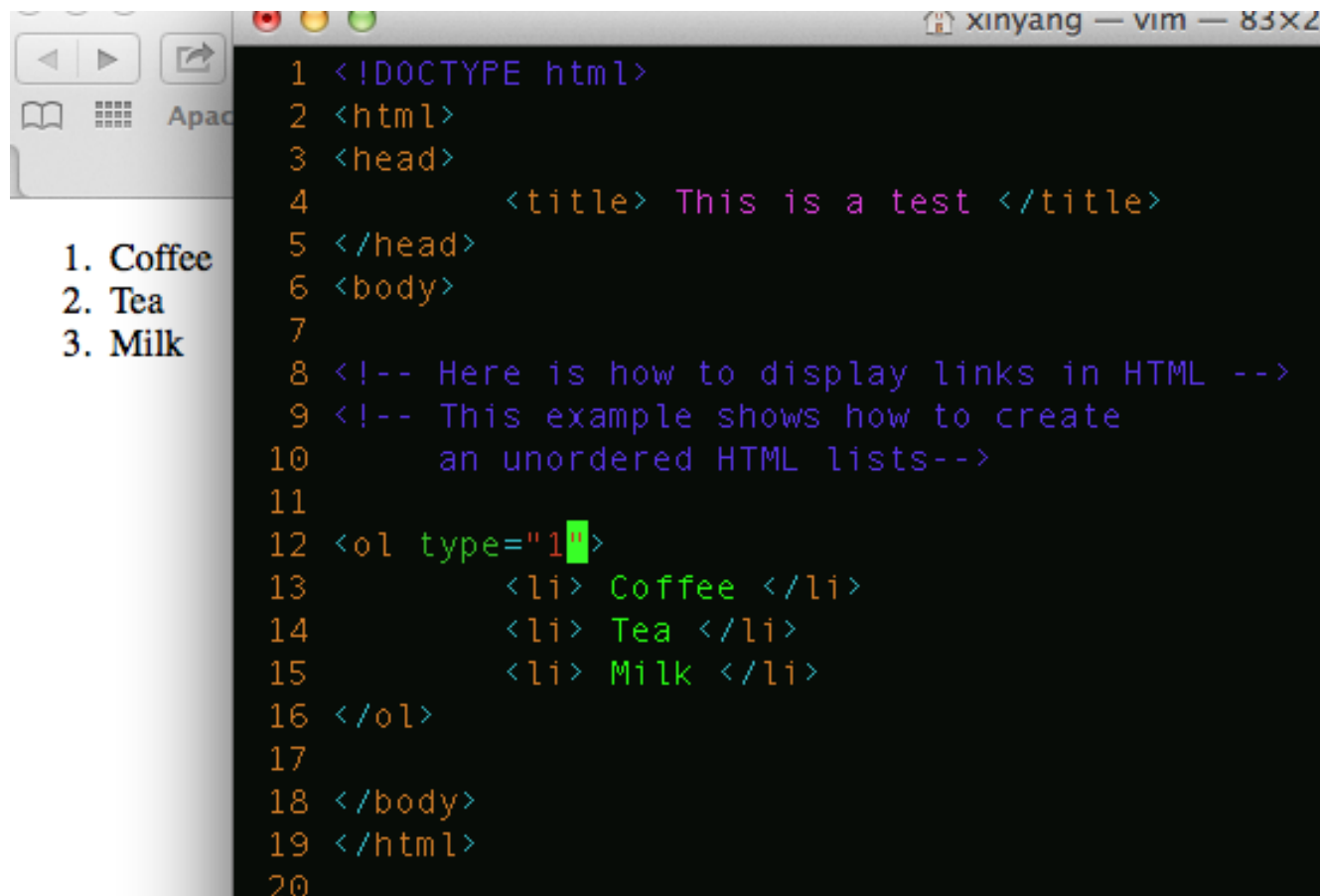
# Unordered HTML Lists - The Type Attribute

- ▶ A **type** attribute can be added to an ordered list, to define the style of the marker:

Type	Description
type="1"	The list items will be numbered with numbers (default)
type="A"	The list items will be numbered with uppercase letters
type="a"	The list items will be numbered with lowercase letters
type="I"	The list items will be numbered with uppercase roman numbers
type="i"	The list items will be numbered with lowercase roman numbers



# Ordered HTML Lists - The Type Attribute: Numbers



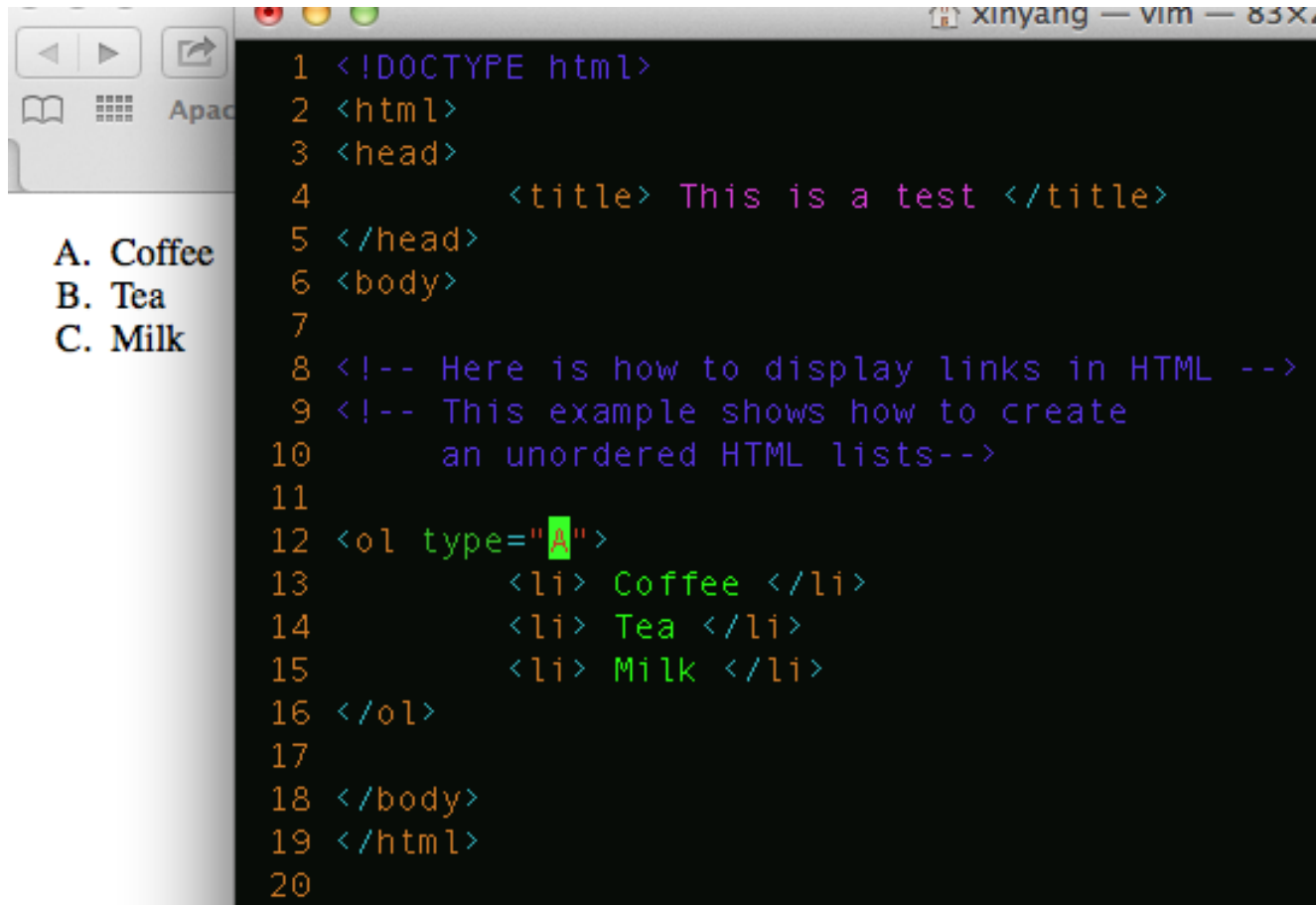
The screenshot shows a Vim editor window with a dark background. The window title is 'xinyang — vim — 83X2'. The editor contains an HTML document with the following code:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to display links in HTML -->
9 <!-- This example shows how to create
10     an unordered HTML lists-->
11
12 <ol type="1">
13     <li> Coffee </li>
14     <li> Tea </li>
15     <li> Milk </li>
16 </ol>
17
18 </body>
19 </html>
20
```

On the left side of the editor, there is a sidebar showing a list of items:

- 1. Coffee
- 2. Tea
- 3. Milk

# Ordered HTML Lists - The Type Attribute: Uppercase Letters



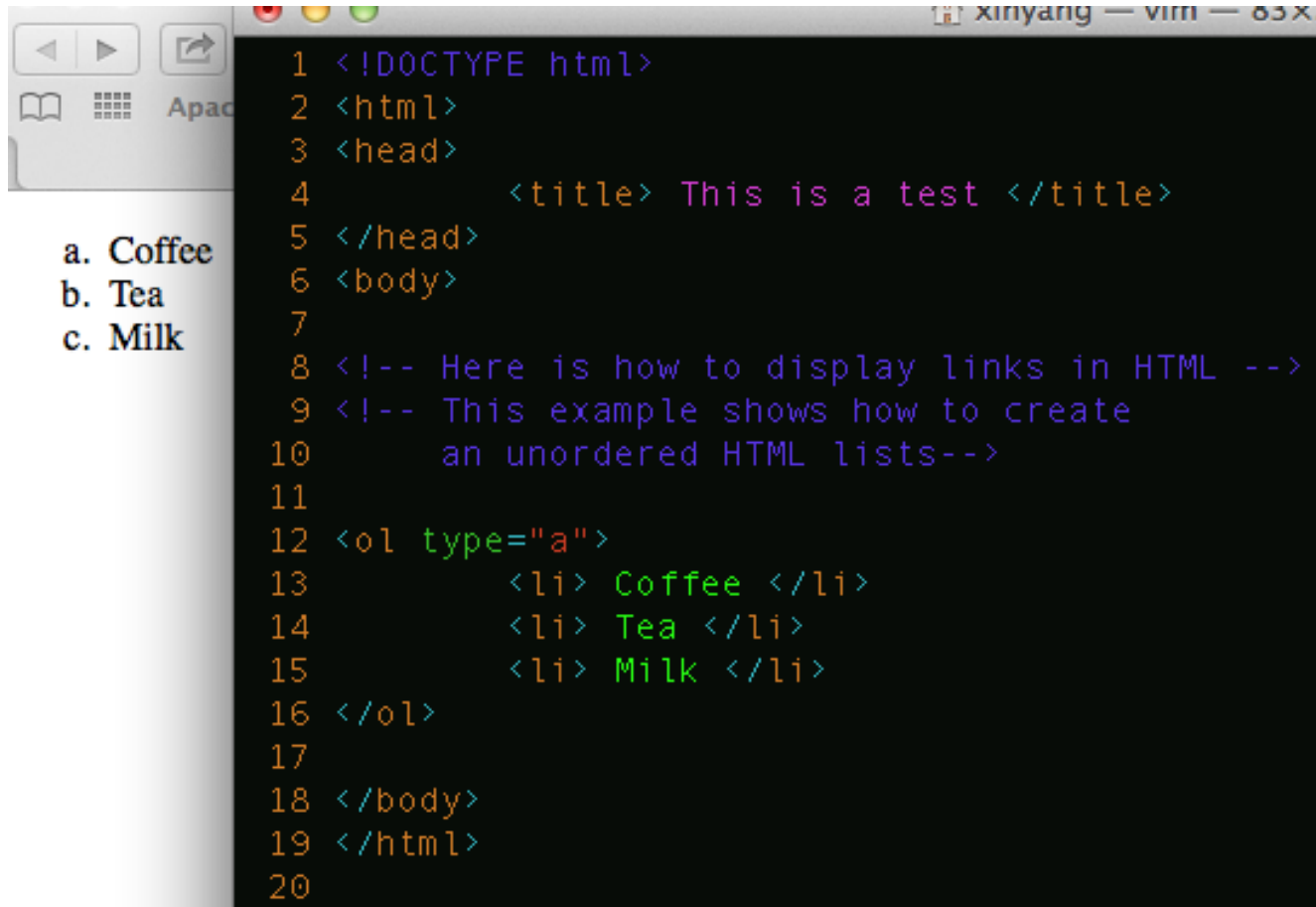
The screenshot shows a Vim editor window with a dark background. The title bar at the top reads "xinyang — vim — 83X4". The editor contains the following HTML code:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to display links in HTML -->
9 <!-- This example shows how to create
10     an unordered HTML lists-->
11
12 <ol type="A">
13     <li> Coffee </li>
14     <li> Tea </li>
15     <li> Milk </li>
16 </ol>
17
18 </body>
19 </html>
20
```

To the left of the code, a preview of the rendered HTML is visible, showing an ordered list with uppercase letters:

- A. Coffee
- B. Tea
- C. Milk

# Ordered HTML Lists - The Type Attribute: Lowercase Letters

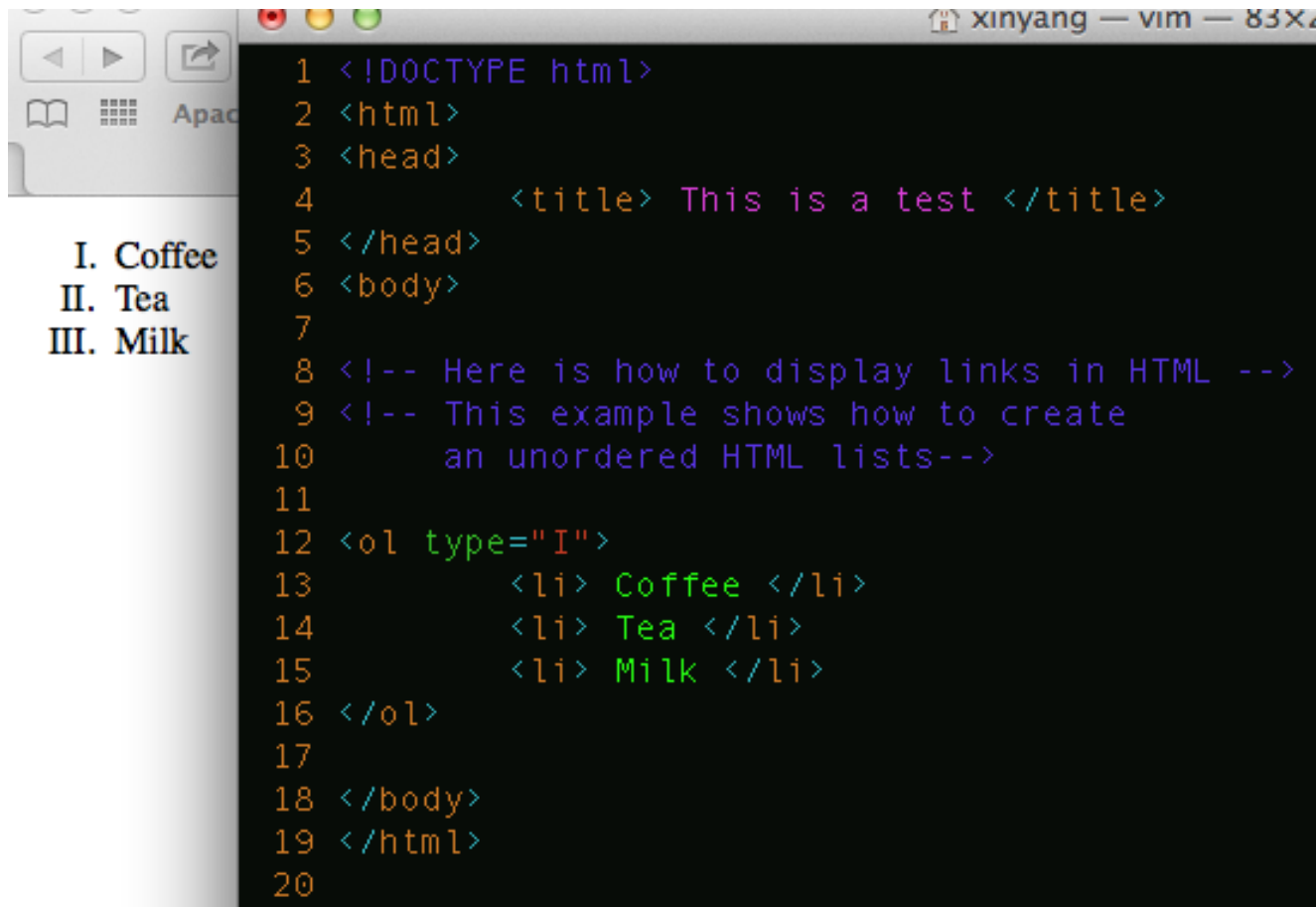


The image shows a web browser window on the left and a code editor on the right. The browser displays an ordered list with lowercase letters 'a', 'b', and 'c' as markers. The code editor shows the corresponding HTML code, which uses the `type="a"` attribute for the `ol` tag to create a list with lowercase letters.

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to display links in HTML -->
9 <!-- This example shows how to create
10     an unordered HTML lists-->
11
12 <ol type="a">
13     <li> Coffee </li>
14     <li> Tea </li>
15     <li> Milk </li>
16 </ol>
17
18 </body>
19 </html>
20
```

a. Coffee  
b. Tea  
c. Milk

# Ordered HTML Lists - The Type Attribute: Uppercase Roman Numbers



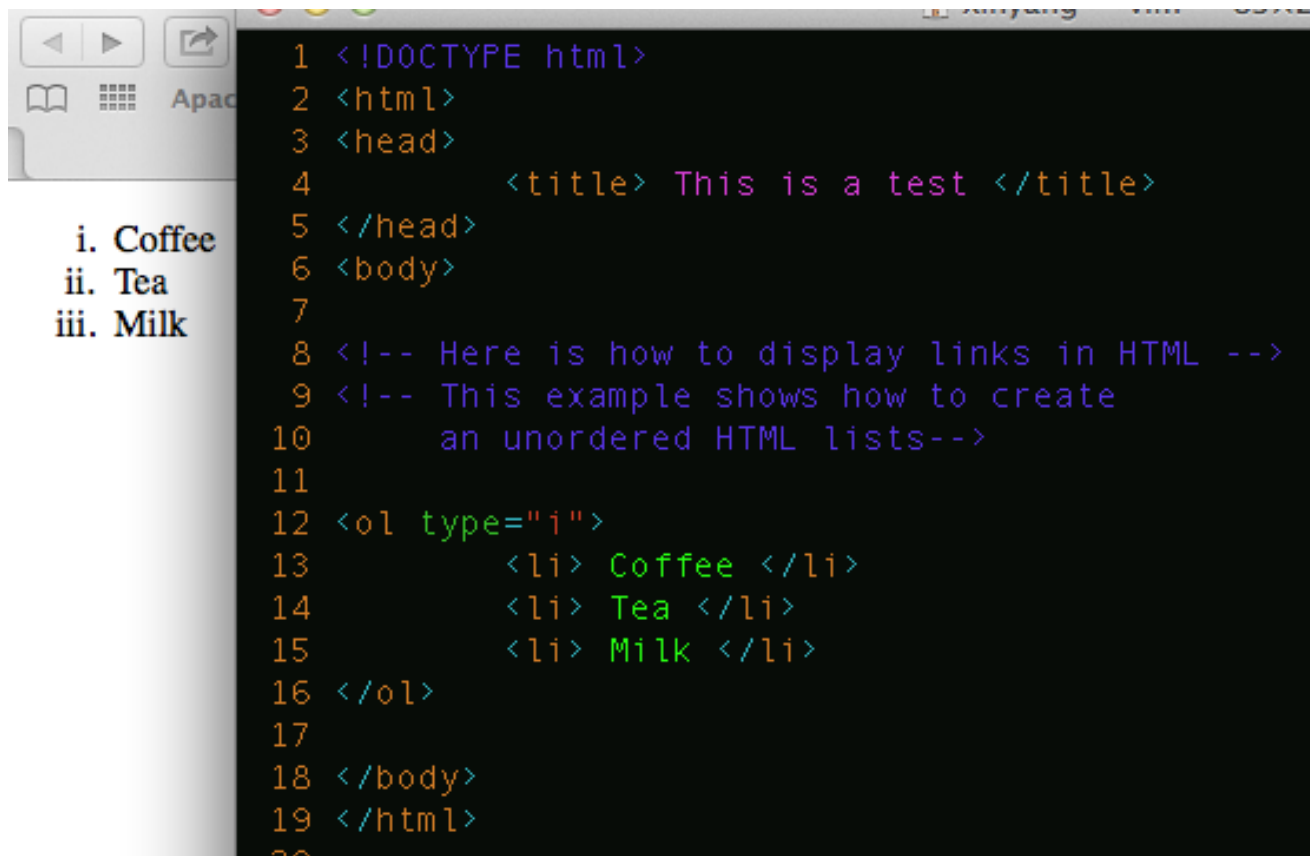
The screenshot shows a Vim editor window with a dark background. The title bar at the top reads 'xinyang — vim — 83X2'. The editor contains the following HTML code:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to display links in HTML -->
9 <!-- This example shows how to create
10     an unordered HTML lists-->
11
12 <ol type="I">
13     <li> Coffee </li>
14     <li> Tea </li>
15     <li> Milk </li>
16 </ol>
17
18 </body>
19 </html>
20
```

To the left of the editor, a preview of the rendered HTML is visible, showing an ordered list with uppercase Roman numerals:

- I. Coffee
- II. Tea
- III. Milk

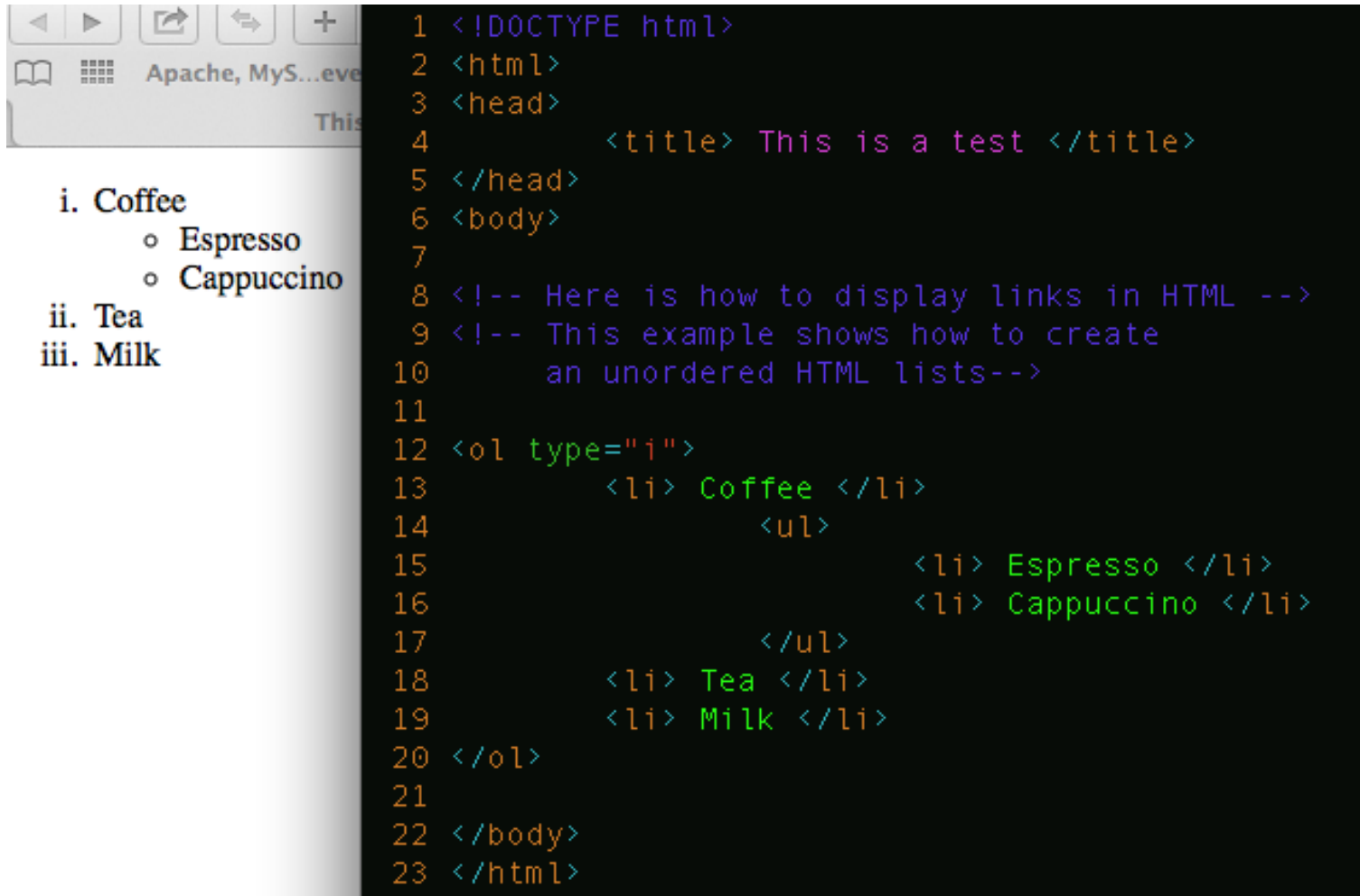
# Ordered HTML Lists - The Type Attribute: Lowercase Roman Numbers



The screenshot shows a web browser window with a dark-themed code editor. On the left, a rendered HTML list is visible, showing three items: 'i. Coffee', 'ii. Tea', and 'iii. Milk'. The main area of the browser displays the HTML code used to create this list. The code is as follows:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to display links in HTML -->
9 <!-- This example shows how to create
10     an unordered HTML lists-->
11
12 <ol type="i">
13     <li> Coffee </li>
14     <li> Tea </li>
15     <li> Milk </li>
16 </ol>
17
18 </body>
19 </html>
20
```

# Nested HTML Lists



The image shows a web browser window on the left and a code editor on the right. The browser displays a nested list:

- i. Coffee
  - o Espresso
  - o Cappuccino
- ii. Tea
- iii. Milk

The code editor on the right shows the HTML code that generates this list:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> This is a test </title>
5 </head>
6 <body>
7
8 <!-- Here is how to display links in HTML -->
9 <!-- This example shows how to create
10     an unordered HTML lists-->
11
12 <ol type="i">
13     <li> Coffee </li>
14         <ul>
15             <li> Espresso </li>
16             <li> Cappuccino </li>
17         </ul>
18     <li> Tea </li>
19     <li> Milk </li>
20 </ol>
21
22 </body>
23 </html>
```

# References

1 <http://www.w3schools.com>