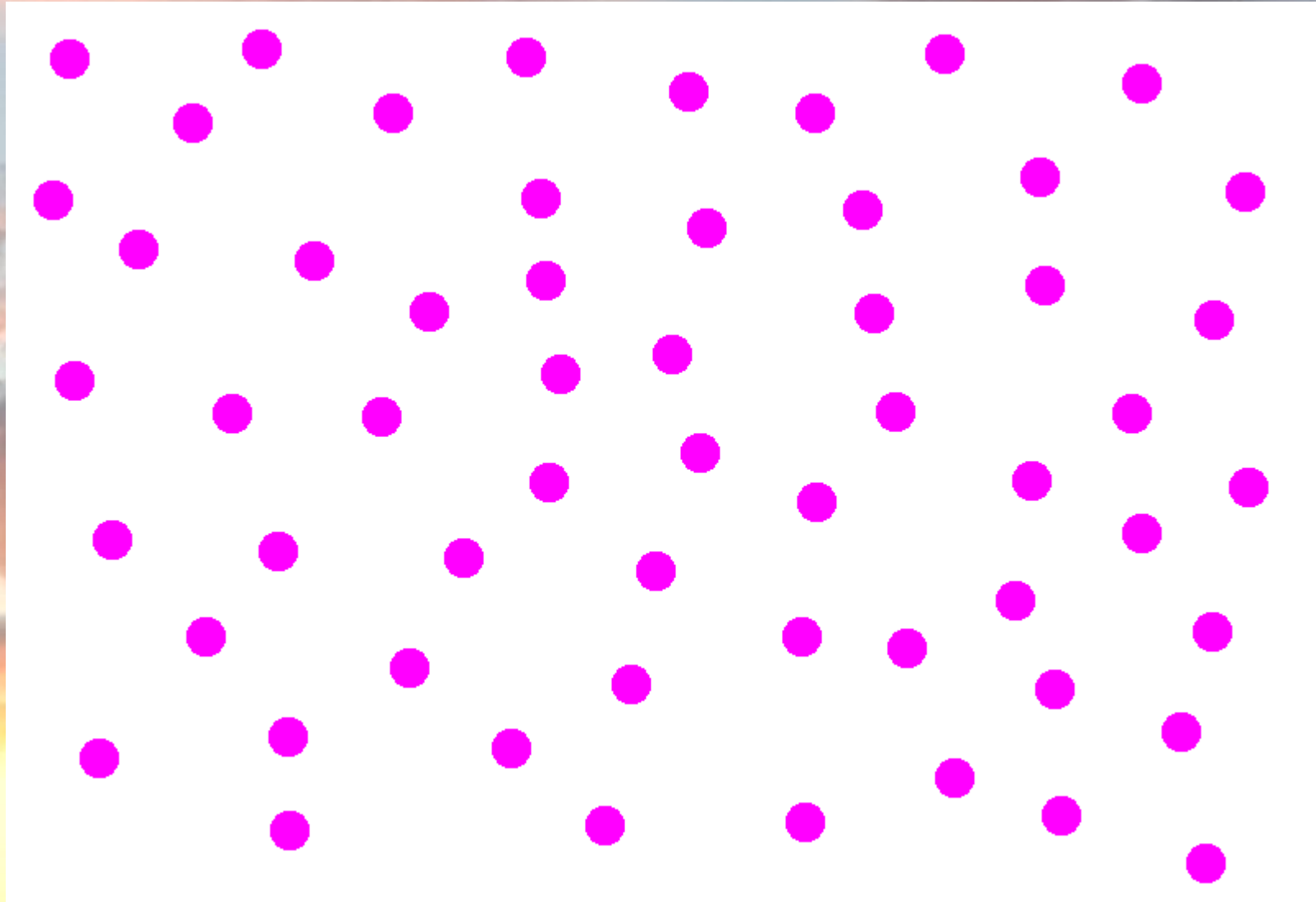




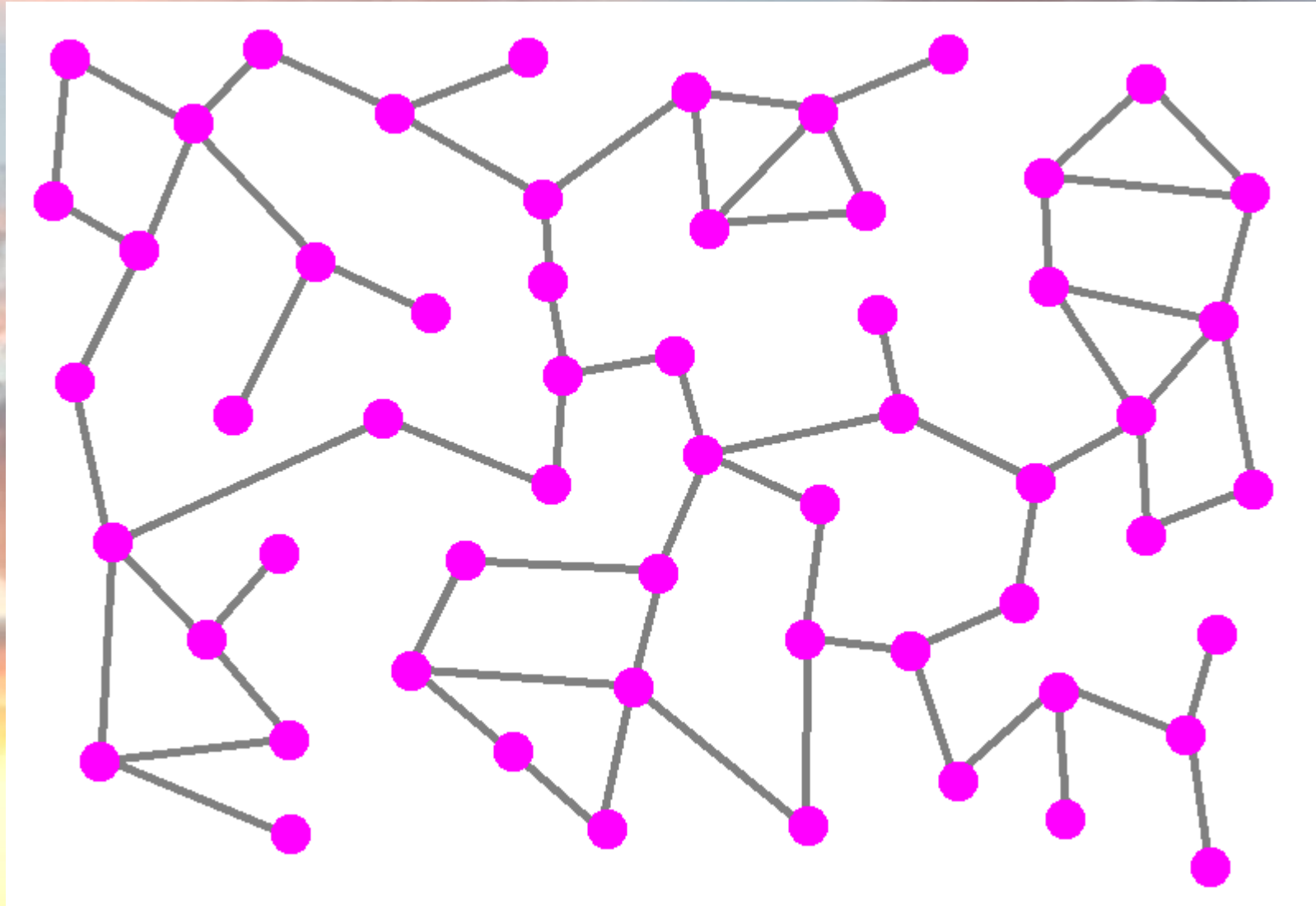
Building Web Pages

A Hands-On Experience

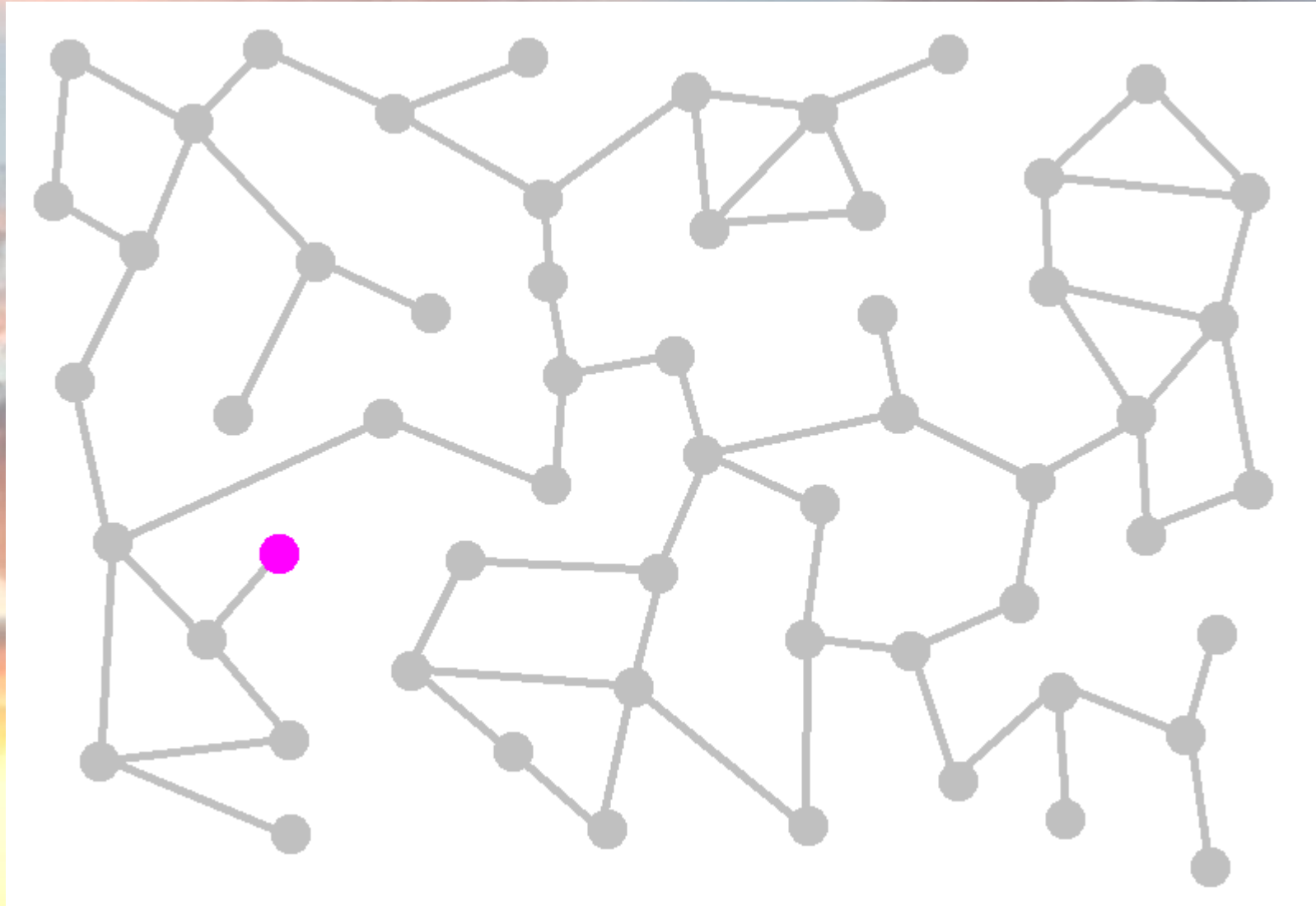
The Internet is Millions of Computers ...



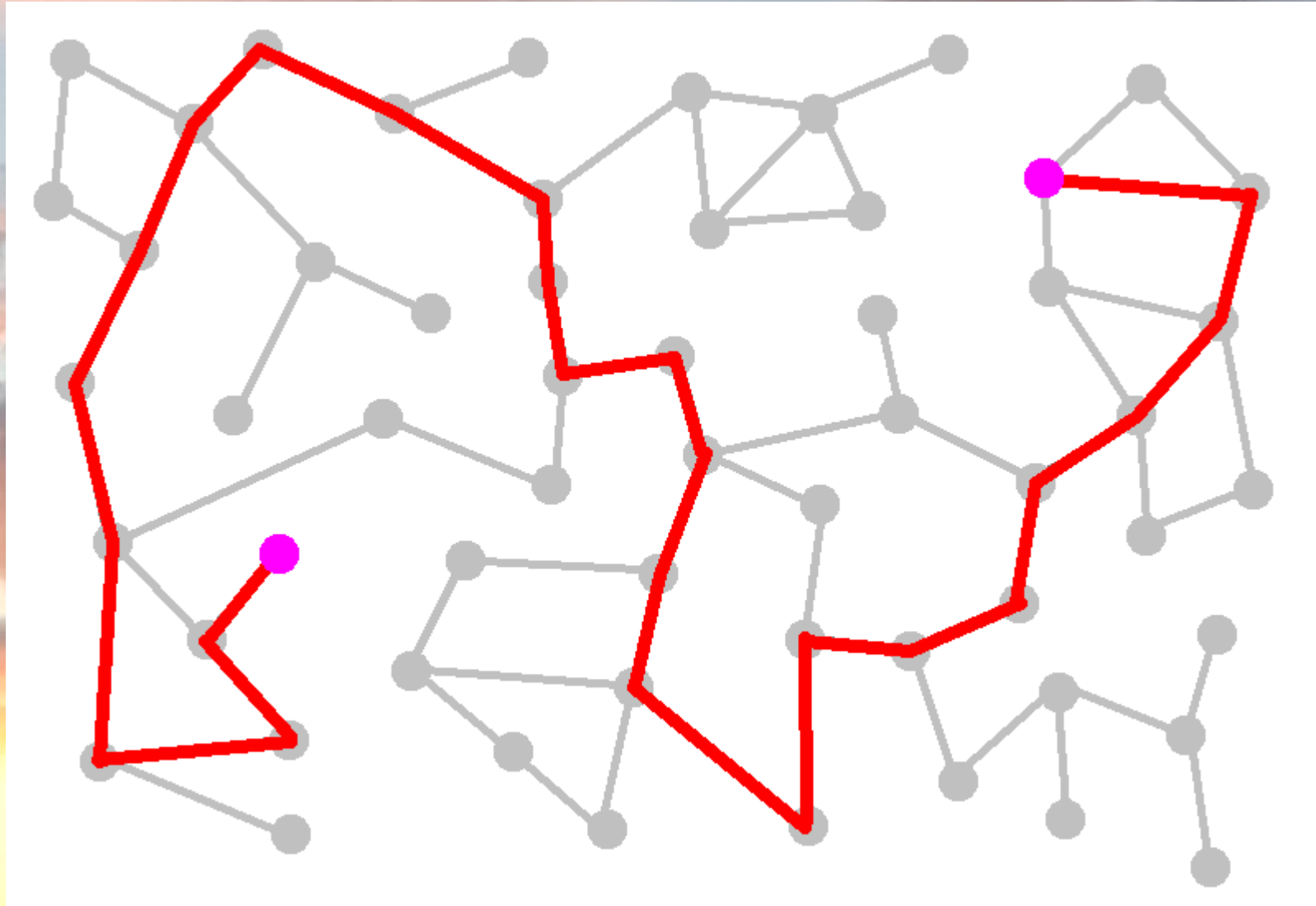
... All Connected Together



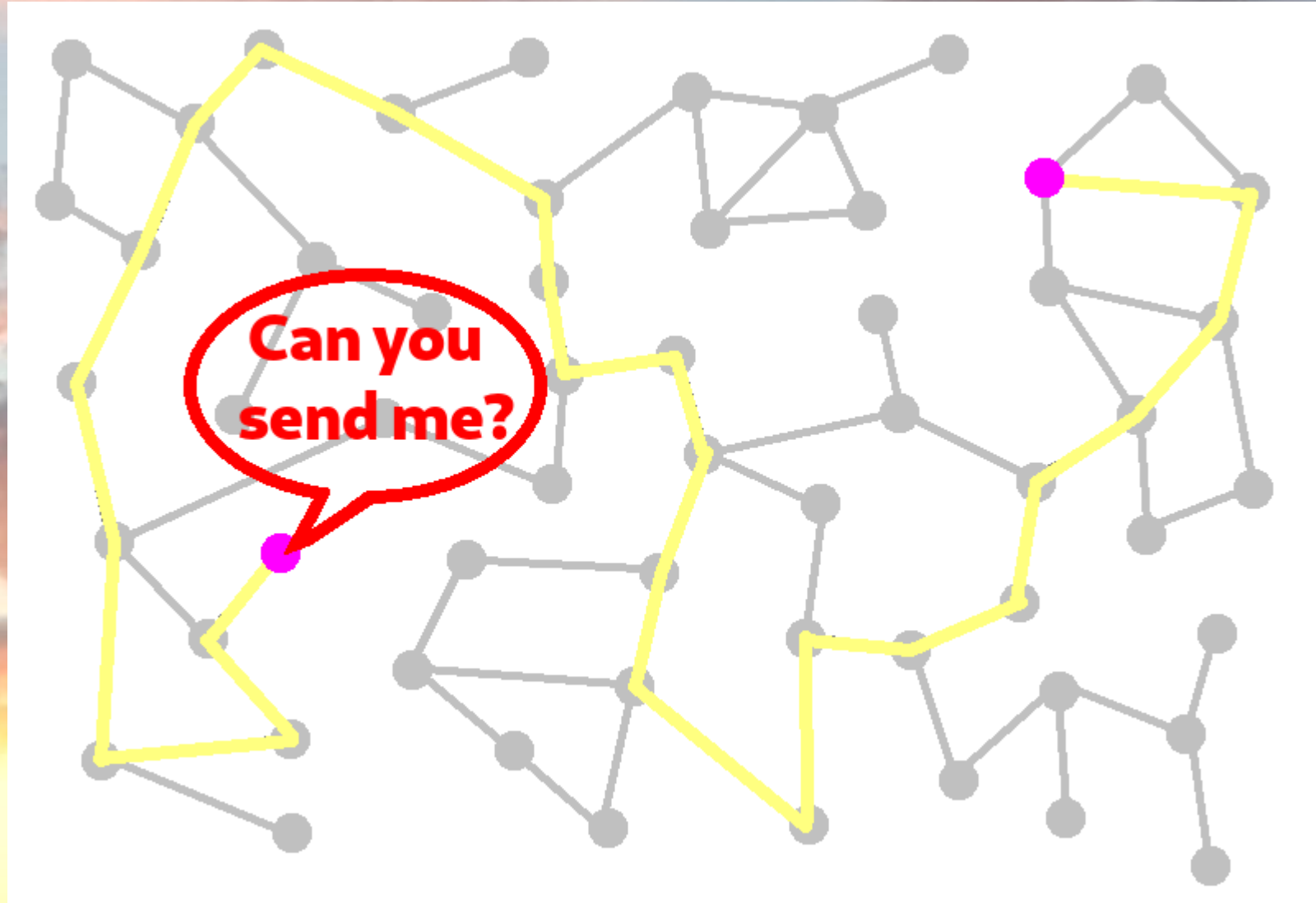
Any computer in the network ...



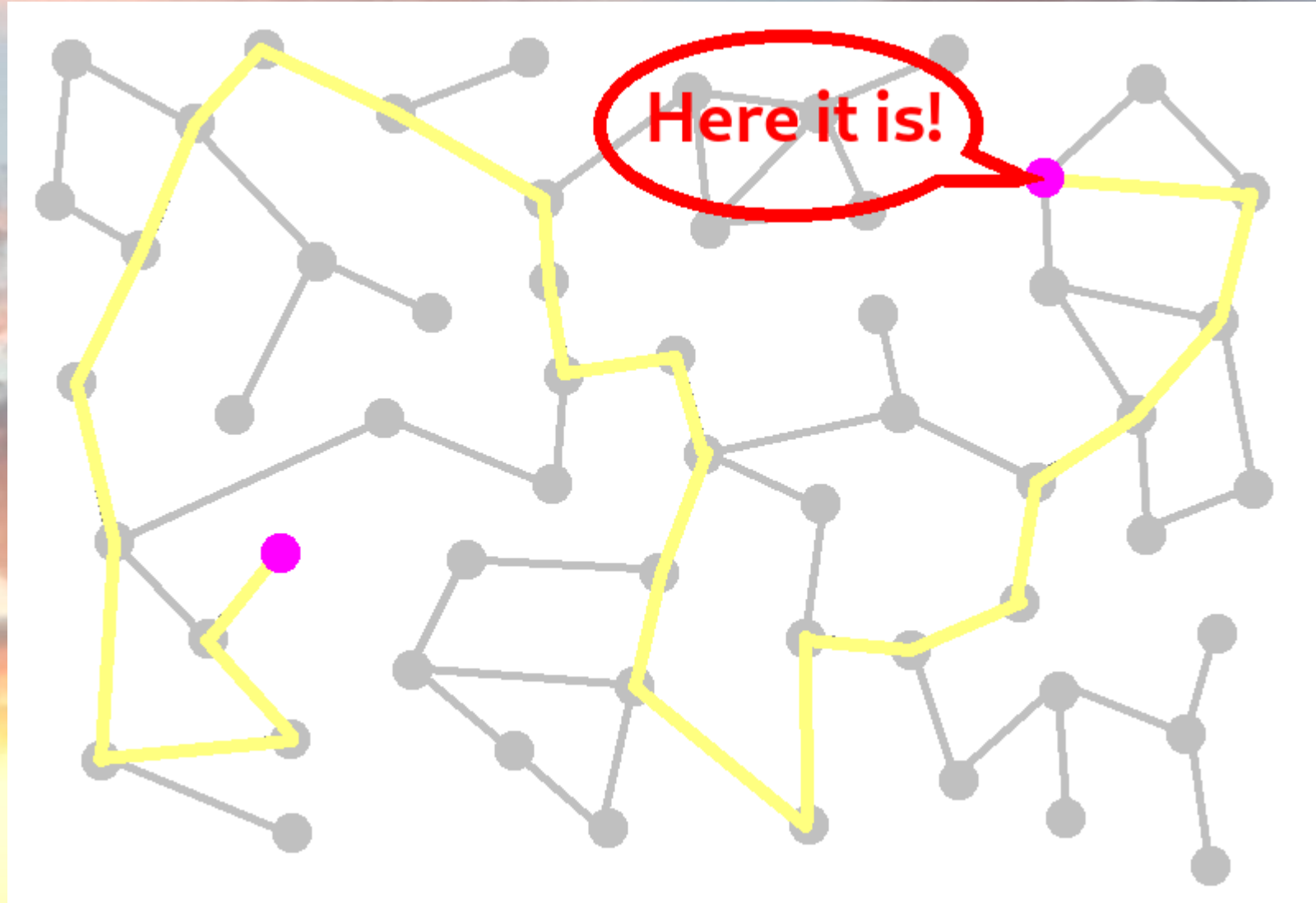
... can talk to any other computer.



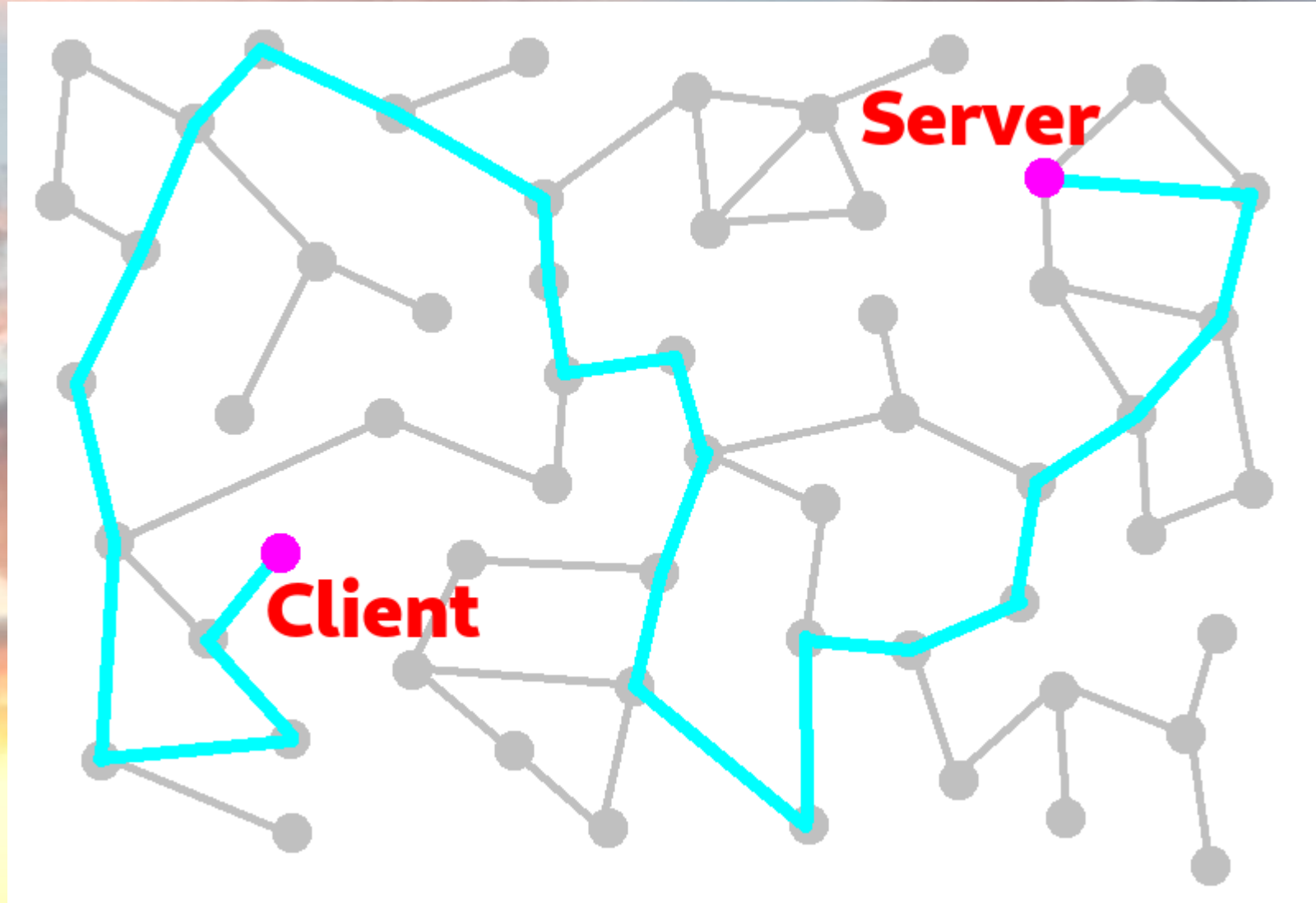
The asking computer is a “client”.



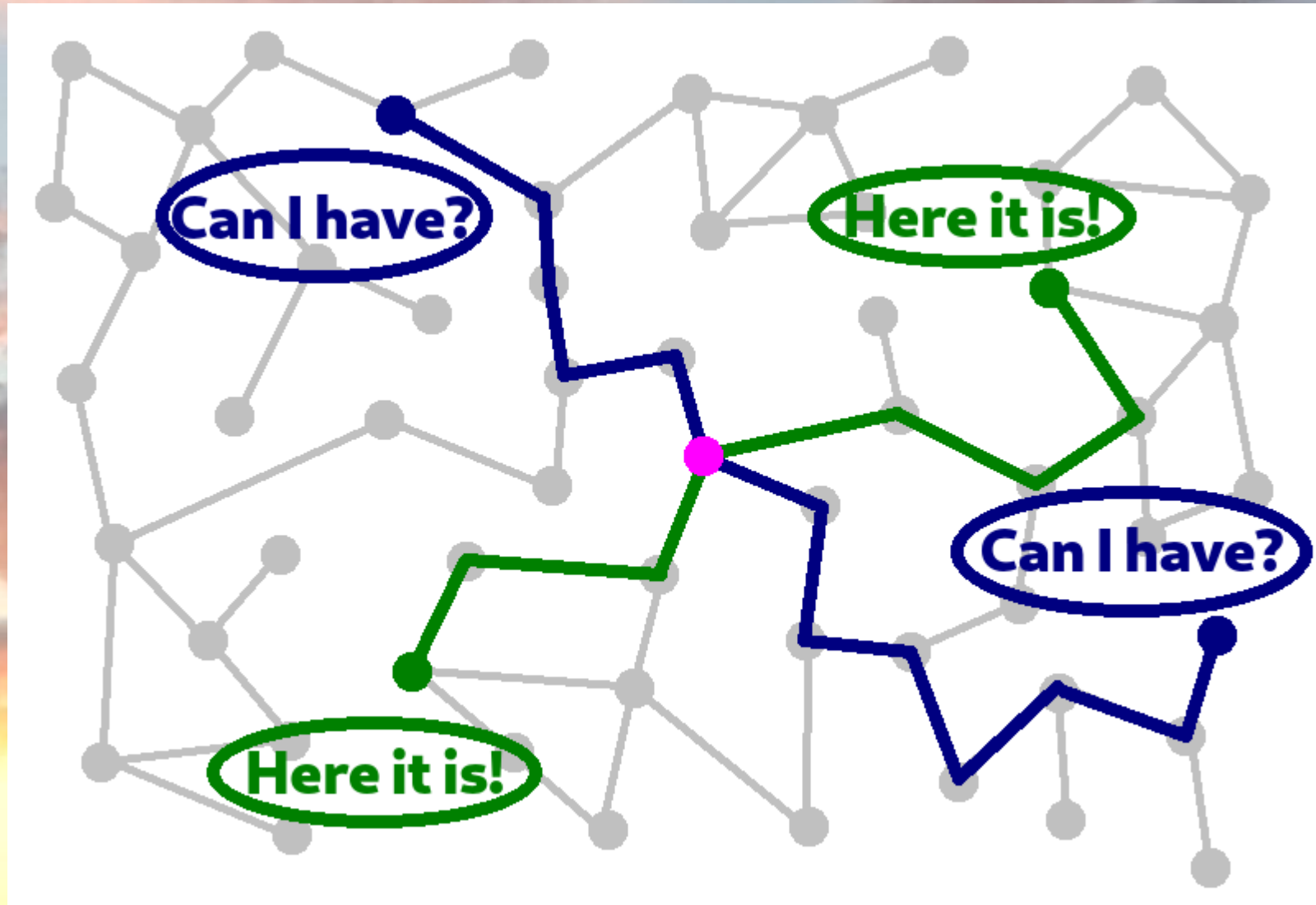
The answering computer is a “server”.



This is called a Client/Server relationship:



Computers can be both client and server



A background image of a sunset or sunrise over a body of water, with palm trees silhouetted on the left side. The sky is filled with soft, colorful clouds in shades of orange, pink, and blue.

Many different kinds of “servers”

- Email Servers**

- File Servers**

- Web Servers**

A sunset scene with a bright orange and yellow sky, scattered clouds, and the silhouettes of palm trees on the left.

We're going to look at Web Servers

- Email Servers

- File Servers

- **Web Servers**

A “Web Server” serves “Web Pages”

WIKIPEDIA
The Free Encyclopedia

zoom

JOIN HOST



amazon Hello
Select your address

All

All Best Sellers Amazon Basics New Releases Customer Service Today's Deals 17 000+ Artikel

Deutsch

About Store

Gmail Images

Google



Magnolia Mobile News

Search



Articles Discussion Forum About Contact

Articles

facebook

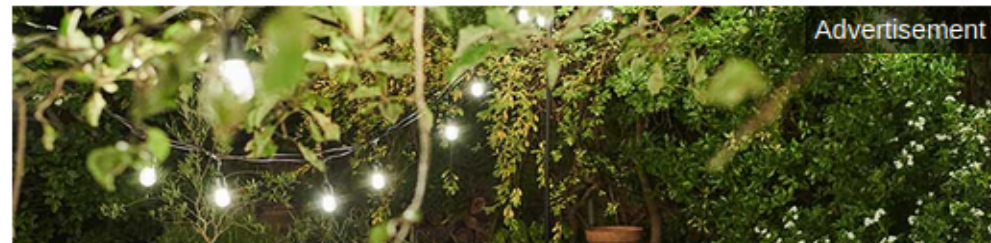
AMD



Aol.



SEARCH



Advertisement

So ... what is a “Web Page”?

WIKIPEDIA

The Free Encyclopedia

English

6 383 000+ articles

日本語

1 292 000+ 記事

Русский

1 756 000+ статей

Deutsch

2 617 000+ Artikel

Español

1 717 000+ artículos

Français

2 362 000+ articles

中文

1 231 000+ 條目

Italiano

1 718 000+ voci

Polski

1 490 000+ hasel

Português

1 074 000+ artigos



So ... what is a “Web Page”?

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1 718 000+ voci

Polski

1 490 000+ hasel

Português

1 074 000+ artigos



```
<!DOCTYPE html>
<html lang="en" class="no-js">
<head>
<meta charset="utf-8">
<title>Wikipedia</title>
<meta name="description" content="Wikipedia is a free online encyclopedia, create
<script>
document.documentElement.className = document.documentElement.className.replace(
</script>
<meta name="viewport" content="initial-scale=1,user-scalable=yes">
<link rel="apple-touch-icon" href="/static/apple-touch/wikipedia.png">
<link rel="shortcut icon" href="/static/favicon/wikipedia.ico">
<link rel="license" href="//creativecommons.org/licenses/by-sa/3.0/">
<style>
.sprite(background-image:linear-gradient(transparent,transparent),url(portal/wiki
</style>
<style>
html{font-family:sans-serif;-ms-text-size-adjust:100%;-webkit-text-size-adjust:10
</style>
<link rel="preconnect" href="//upload.wikimedia.org">
</head>
<body id="www-wikipedia-org">
<div class="central-textlogo">

<span class="central-textlogo__image sprite svg-Wikipedia_wordmark">
Wikipedia
</span>
<strong class="jsll0n localized-slogan" data-jsll0n="portal.slogan">The Free Ency
</h1>
</div>
<div class="central-featured" data-el-section="primary links">
```

(from “View Page Source”)

It's Hyper Text Markup Language (HTML)

Let's look at a web page a little closer ...

WIKIPEDIA

The Free Encyclopedia

English

6 383 000+ articles

日本語

1 292 000+ 記事

Русский

1 756 000+ статей

Español

1 717 000+ artículos

中文

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1 490 000+ hasel

Português

1 074 000+ artigos



Deutsch

2 617 000+ Artikel

Français

2 362 000+ articles

Italiano

1 718 000+ voci

^ _ Page _ ^

HTML =>

```
<!DOCTYPE html>
```

```
<html ...>
```

```
<head>
```

```
</head>
```

```
<body ...>
```

```
<h1 ...>
```

```
<span ...>
```

```
Wikipedia
```

```
</span>
```

```
<strong ...>The Free Encyclopedia</strong>
```

```
</h1>
```

```
<strong>English</strong>
```

```
<strong>日本語</strong>
```

```
<strong>Deutsch</strong>
```

```
<strong>Español</strong>
```

```
<strong>Français</strong>
```

```
<strong>中文</strong>
```

```
<strong>Italiano</strong>
```

```
<strong>Polski</strong>
```

```
<strong>Português</strong>
```

```
</body>
```

```
</html>
```

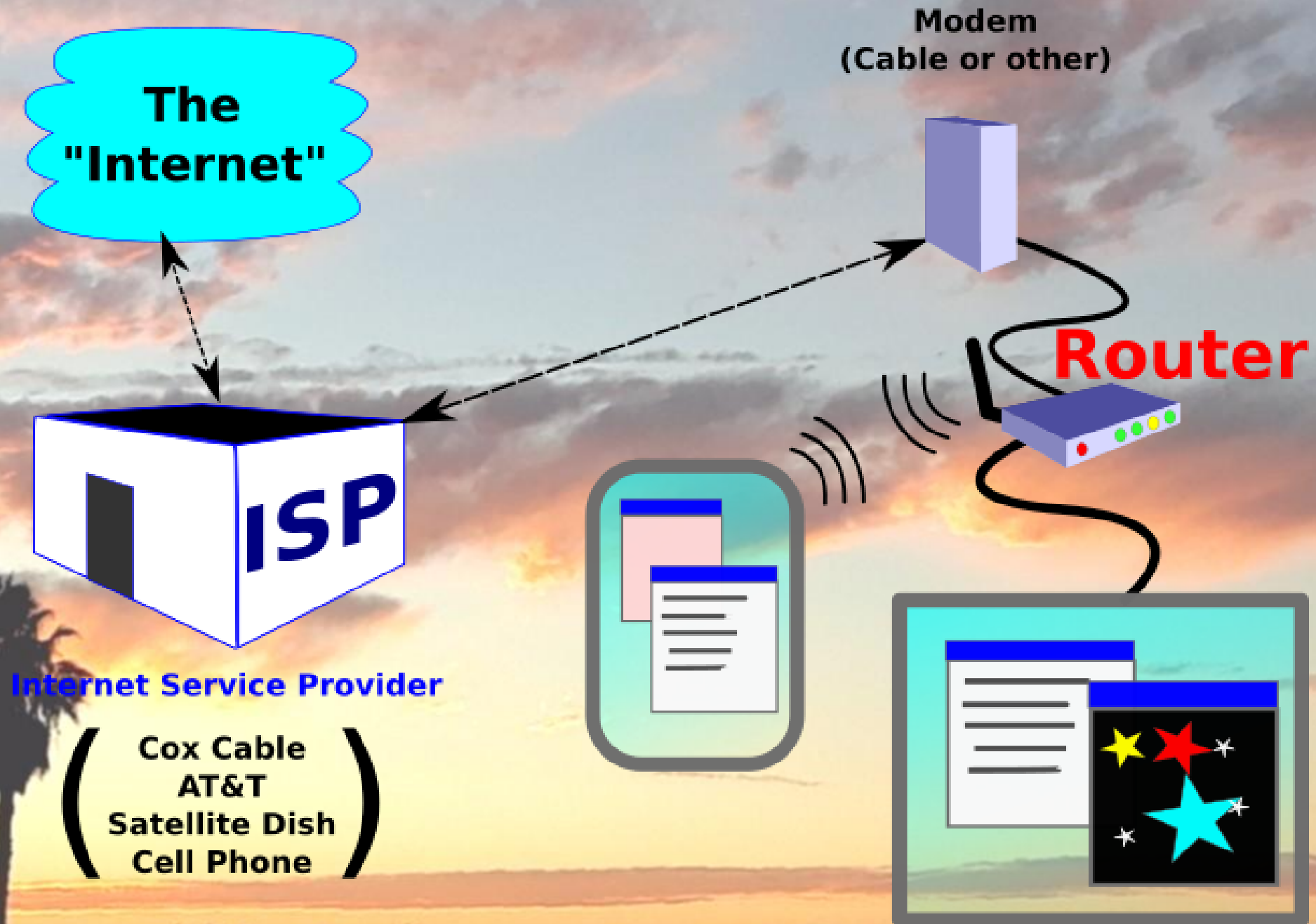

Let's look at a web page a little closer ...

```
<!DOCTYPE html>
<html ...>
<head>
</head>
<body ...>
<h1 ...>
<span ...>
Wikipedia
</span>
<strong ...>The Free Encyclopedia</strong>
</h1>
<strong>English</strong>
<strong>日本語</strong>
<strong>Deutsch</strong>
<strong>Español</strong>
<strong>Français</strong>
<strong>中文</strong>
<strong>Italiano</strong>
<strong>Polski</strong>
<strong>Português</strong>
</body>
</html>
```

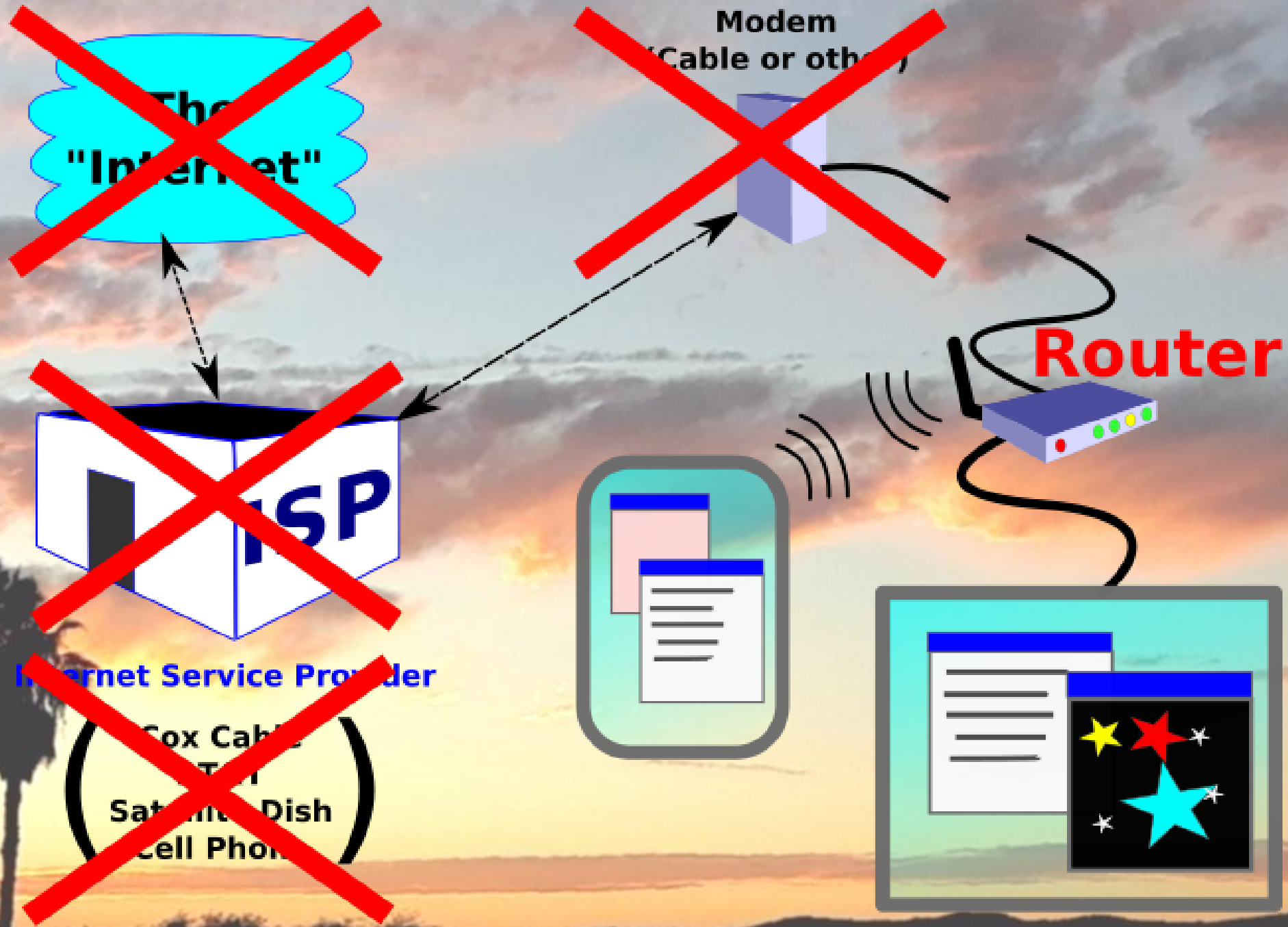
The HTML (left) is sent by the web server to the browser (client) which shows you this:



Typical Home Computer (Client Only)



We don't need most of that stuff.





**We'll just need one router and
Five Client/Server Computers named:
Red Green Blue Yellow Brown**

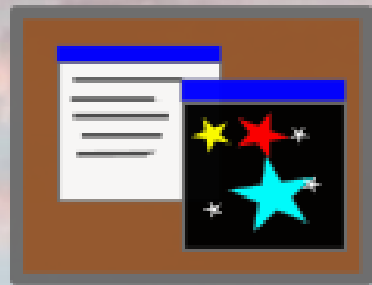
Each computer is a web client.

Each computer is a web server.

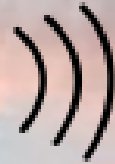
Each computer sees all other computers.

Here's what it looks like ...

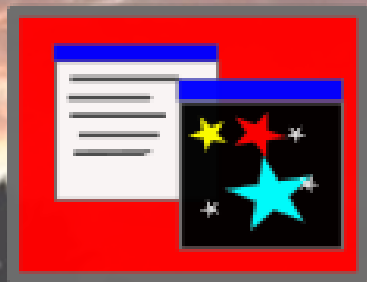
MMCC “Internet” (no outside connections)



Brown



Router



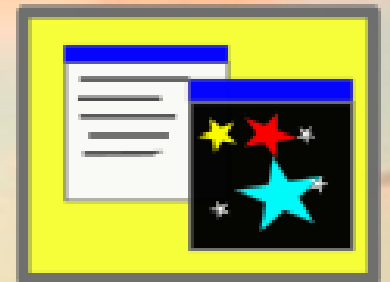
Red



Green



Blue



Yellow



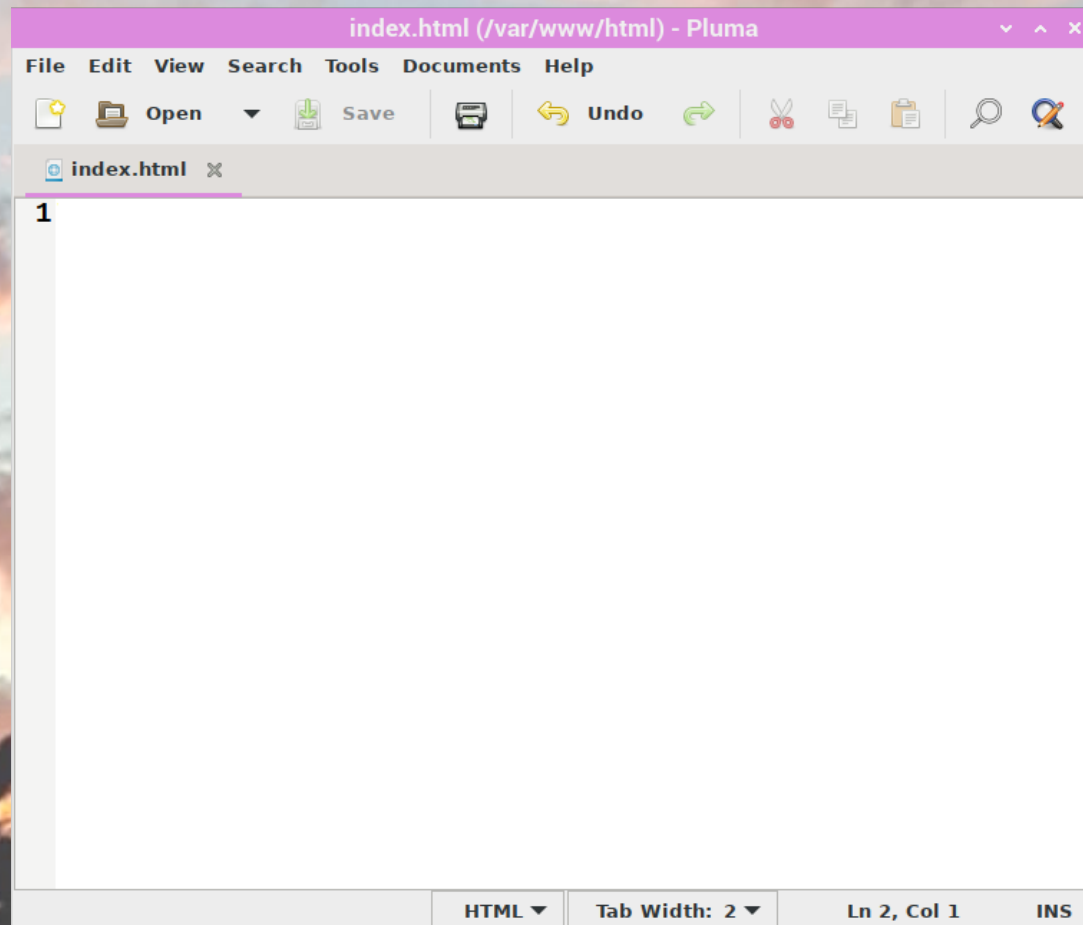
**Every computer will have and
serve its own web pages.**

**Every computer will be able to
see all of the other web pages.**

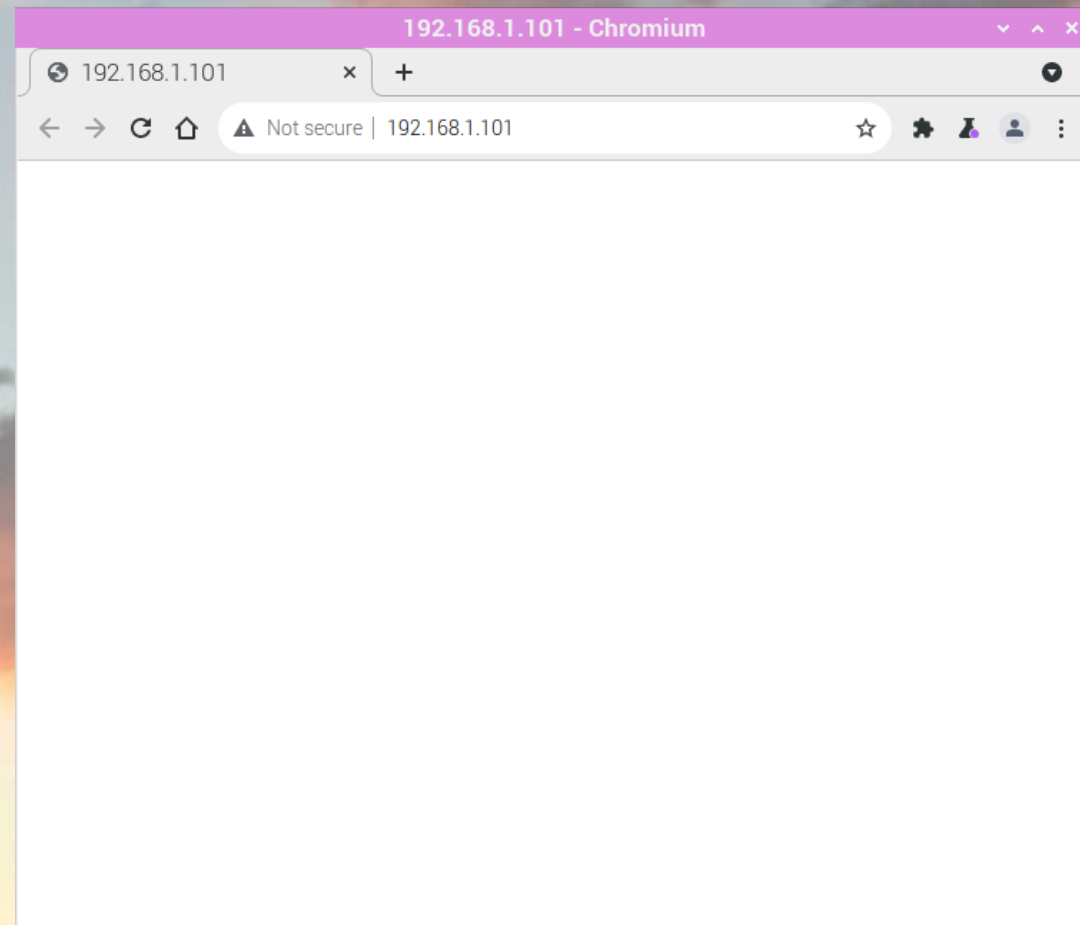
Let's get started!!

You should see two blank open windows

Editor (Pluma)

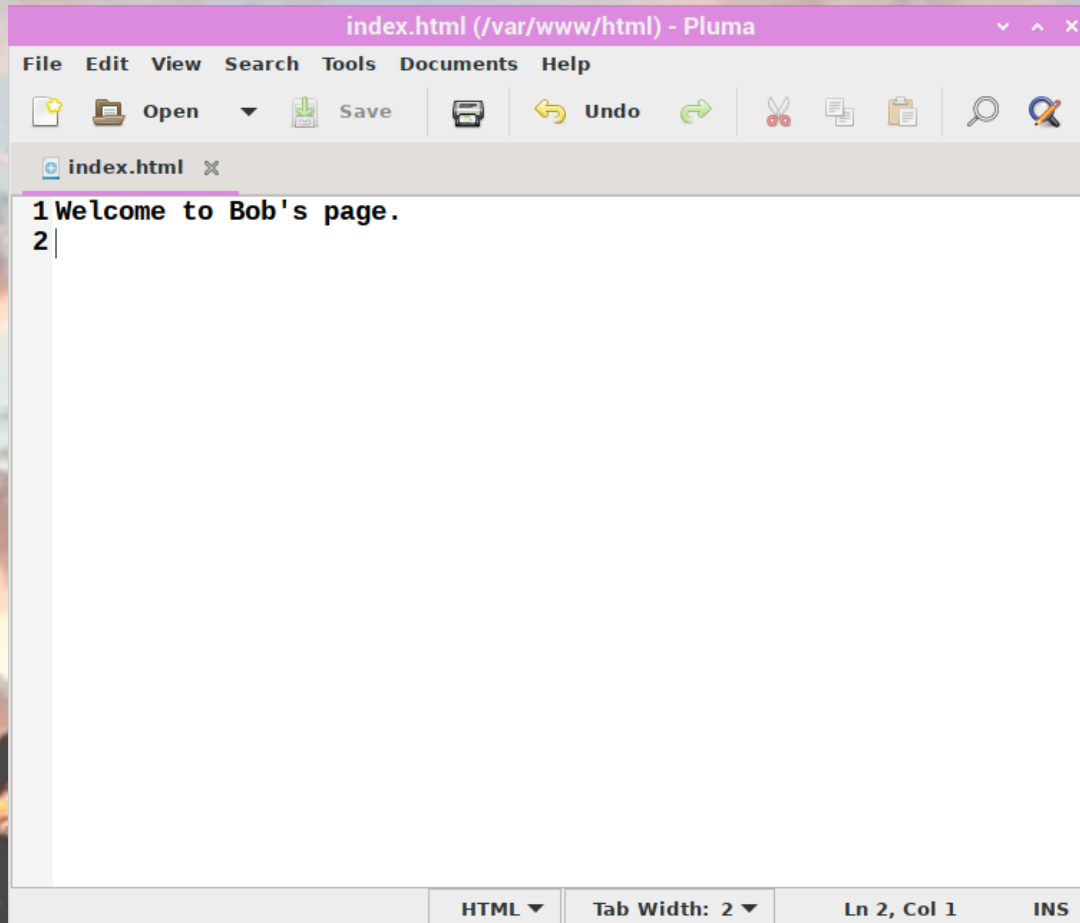


Web Browser (Chromium)



Start by typing a greeting for your page

Editor (Pluma)

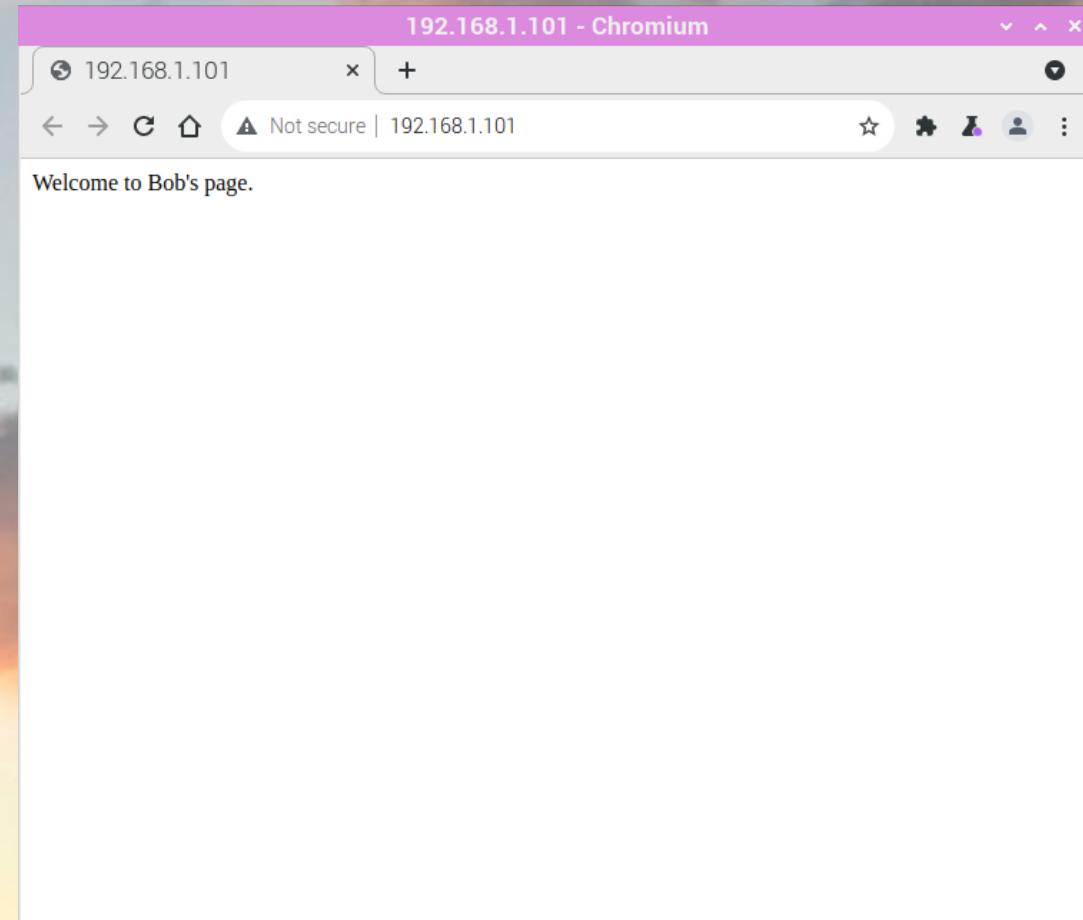


The screenshot shows the Pluma text editor interface. The title bar reads "index.html (/var/www/html) - Pluma". The menu bar includes "File", "Edit", "View", "Search", "Tools", "Documents", and "Help". The toolbar contains icons for "Open", "Save", "Print", "Undo", "Redo", "Cut", "Copy", "Paste", "Find", and "Replace". The editor area shows a single tab for "index.html" with the following content:

```
1 Welcome to Bob's page.  
2 |
```

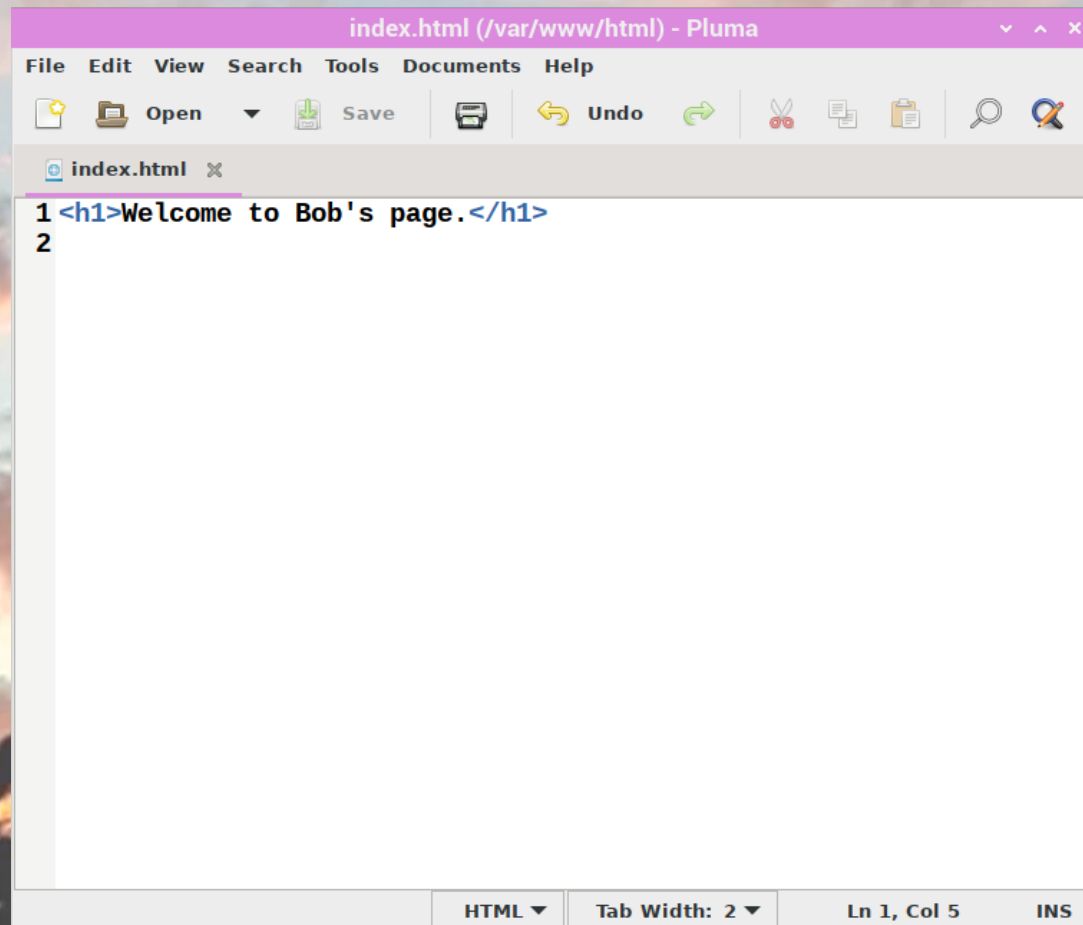
The status bar at the bottom indicates "HTML", "Tab Width: 2", "Ln 2, Col 1", and "INS".

Web Browser (Chromium)



Add the Heading 1 tags `<h1>` and `</h1>`

Editor (Pluma)

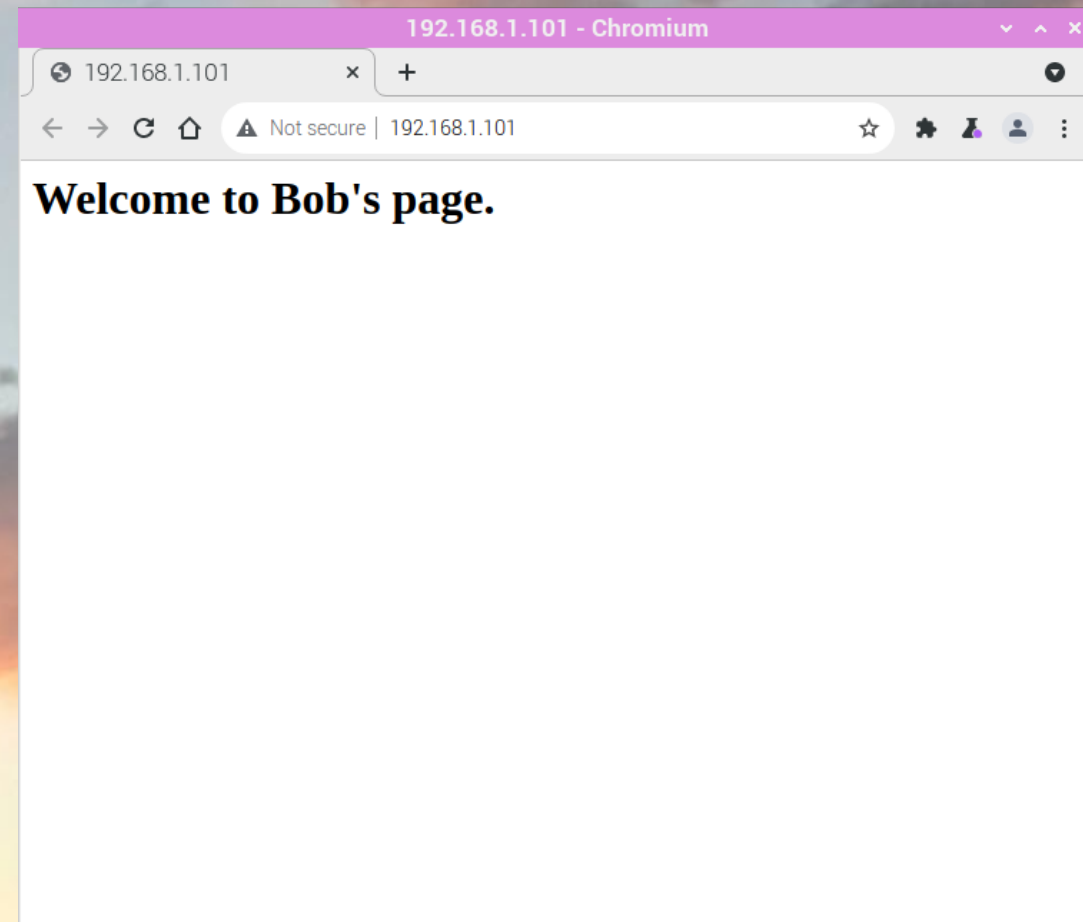


The screenshot shows the Pluma text editor window titled "index.html (/var/www/html) - Pluma". The menu bar includes File, Edit, View, Search, Tools, Documents, and Help. The toolbar contains icons for Open, Save, Undo, Redo, Cut, Copy, Paste, Find, and Replace. The editor area shows the following code:

```
1 <h1>Welcome to Bob's page.</h1>
2
```

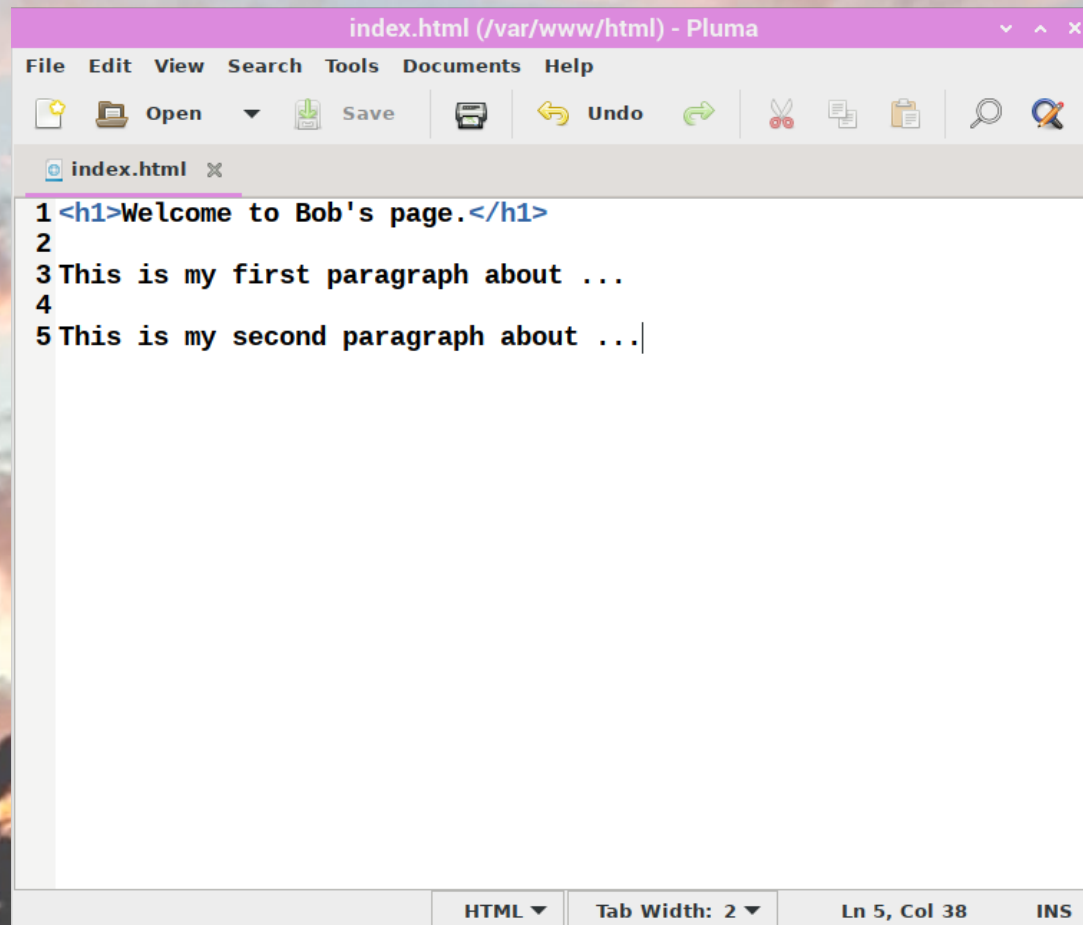
The status bar at the bottom indicates "HTML", "Tab Width: 2", "Ln 1, Col 5", and "INS".

Web Browser (Chromium)



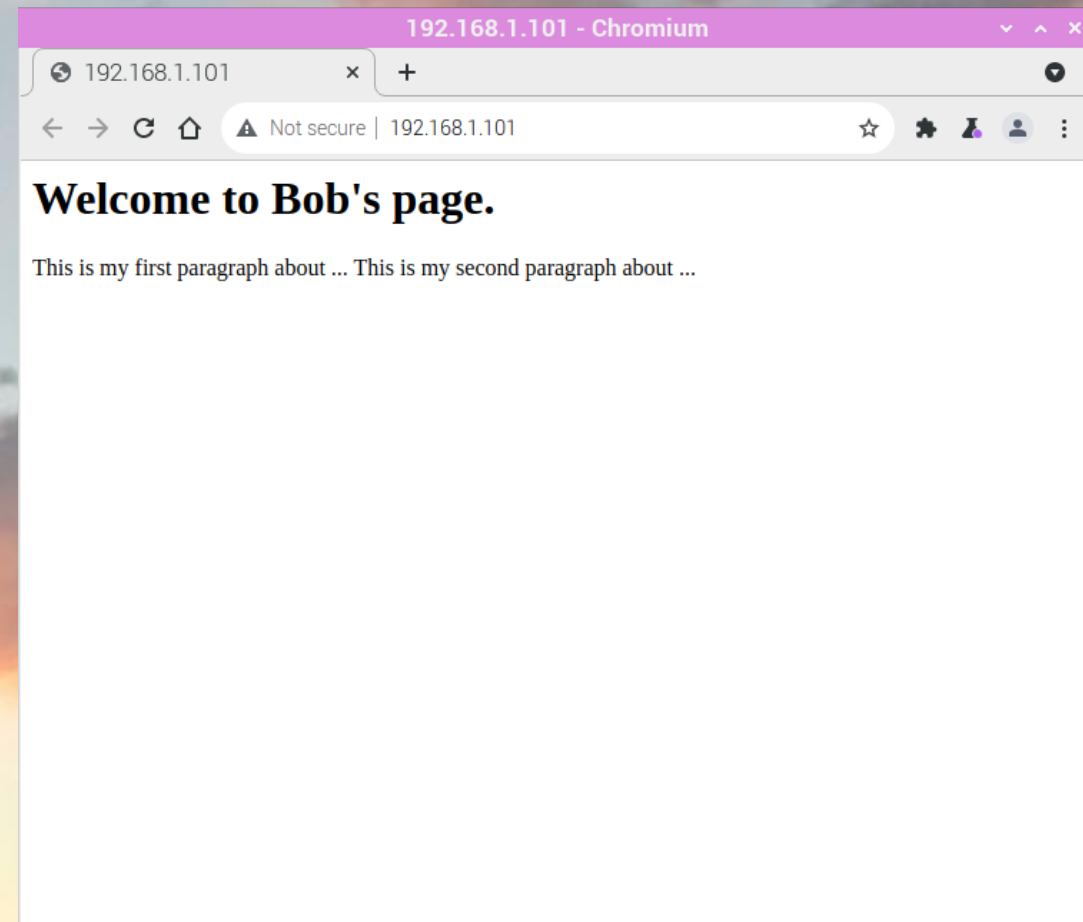
Add a second paragraph. What happened?

Editor (Pluma)



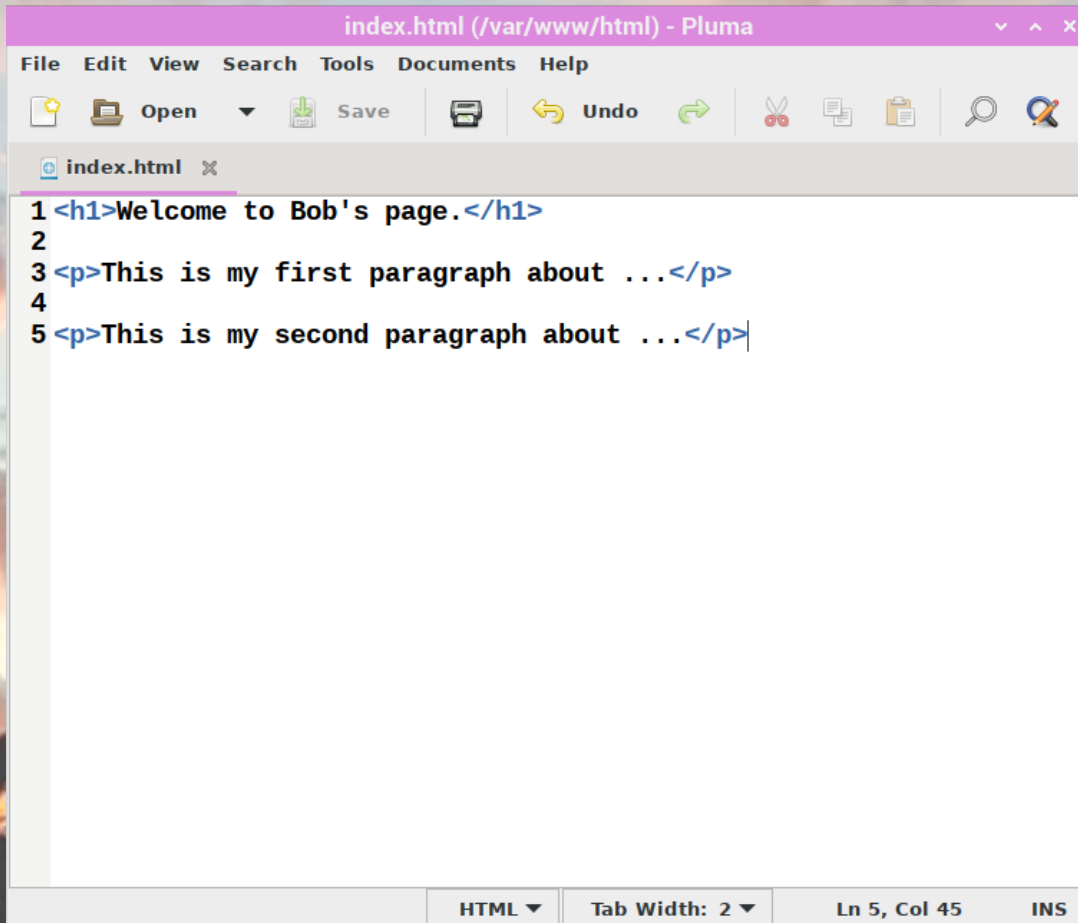
```
1 <h1>Welcome to Bob's page.</h1>
2
3 This is my first paragraph about ...
4
5 This is my second paragraph about ...|
```

Web Browser (Chromium)



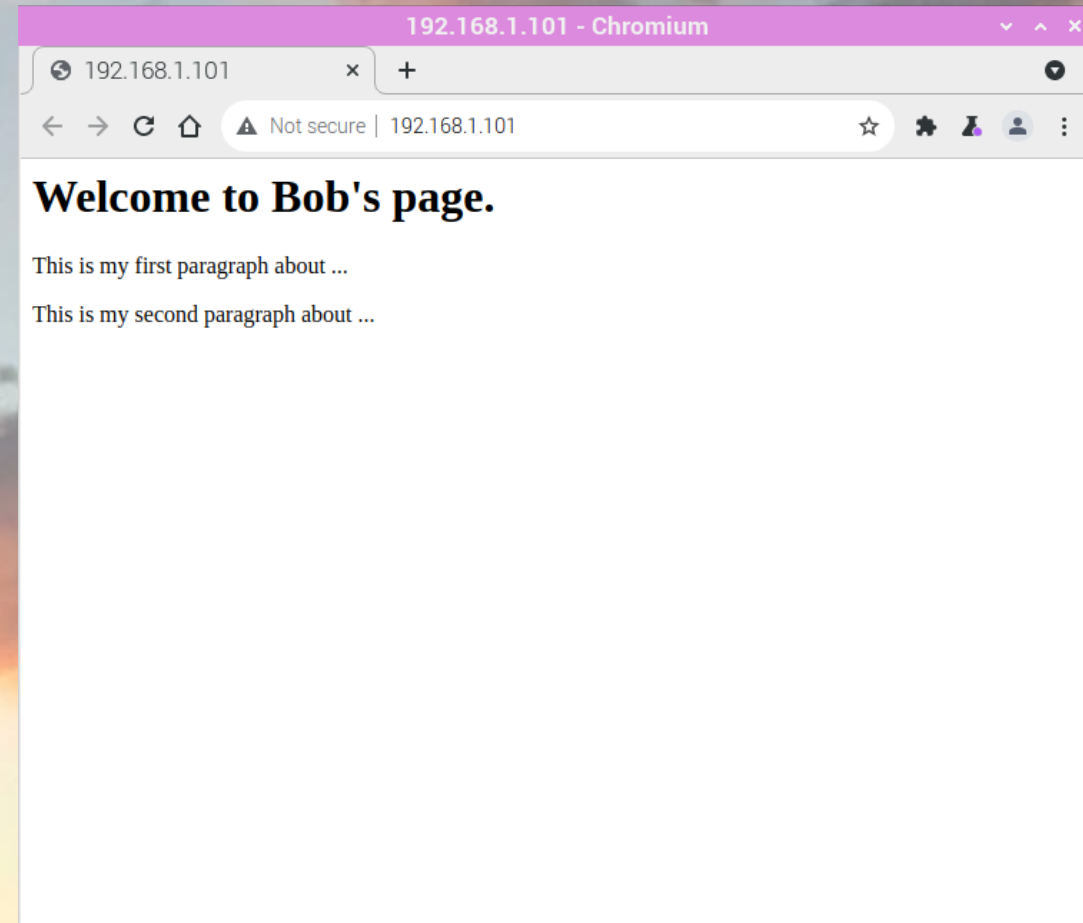
Use Paragraph tags `<p>` and `</p>`

Editor (Pluma)



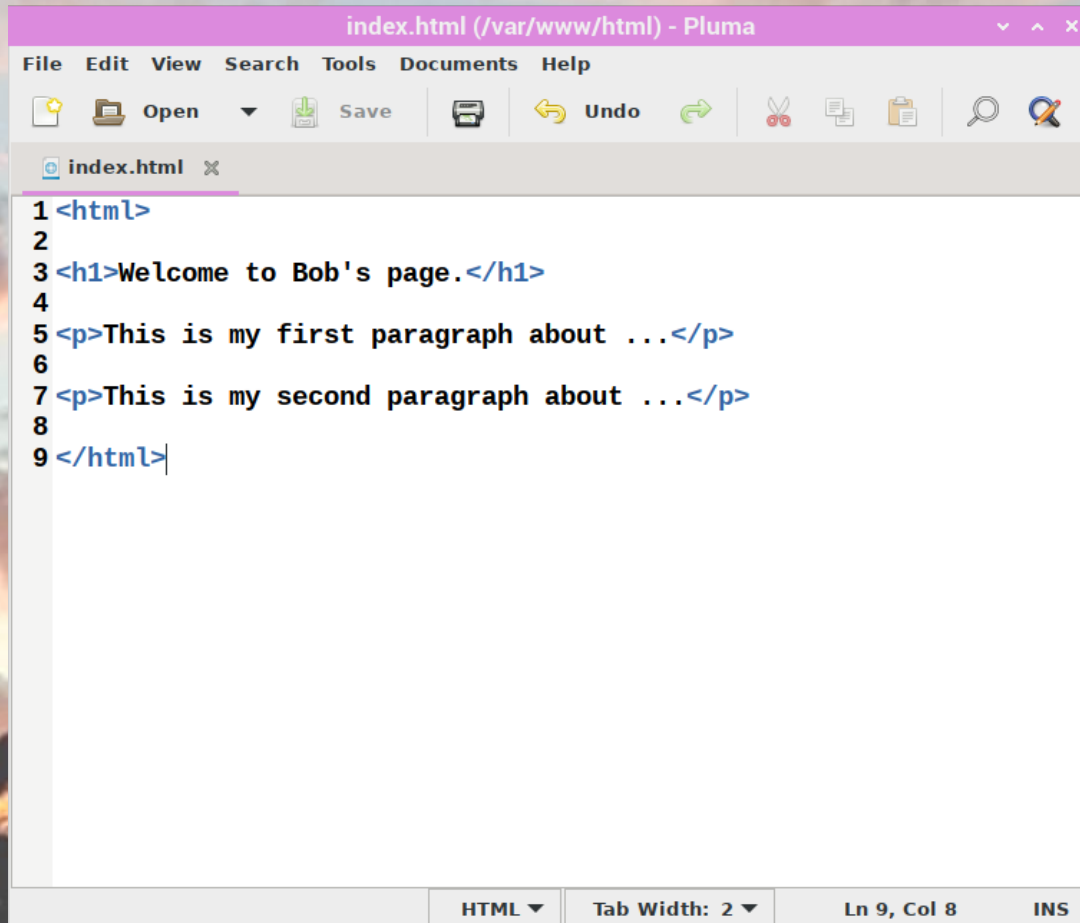
```
1 <h1>Welcome to Bob's page.</h1>
2
3 <p>This is my first paragraph about ...</p>
4
5 <p>This is my second paragraph about ...</p>
```

Web Browser (Chromium)



Add the `<html>` and `</html>` tags

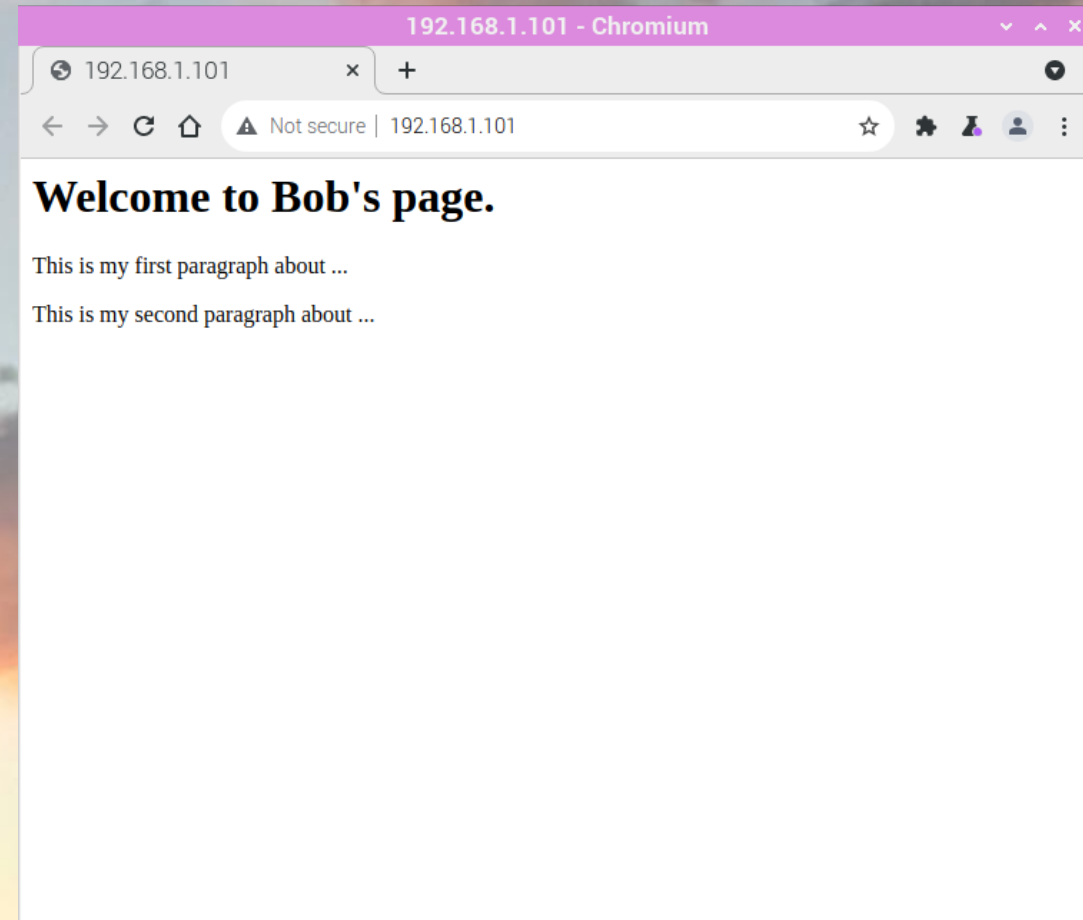
Editor (Pluma)



```
1 <html>
2
3 <h1>Welcome to Bob's page.</h1>
4
5 <p>This is my first paragraph about ...</p>
6
7 <p>This is my second paragraph about ...</p>
8
9 </html>
```

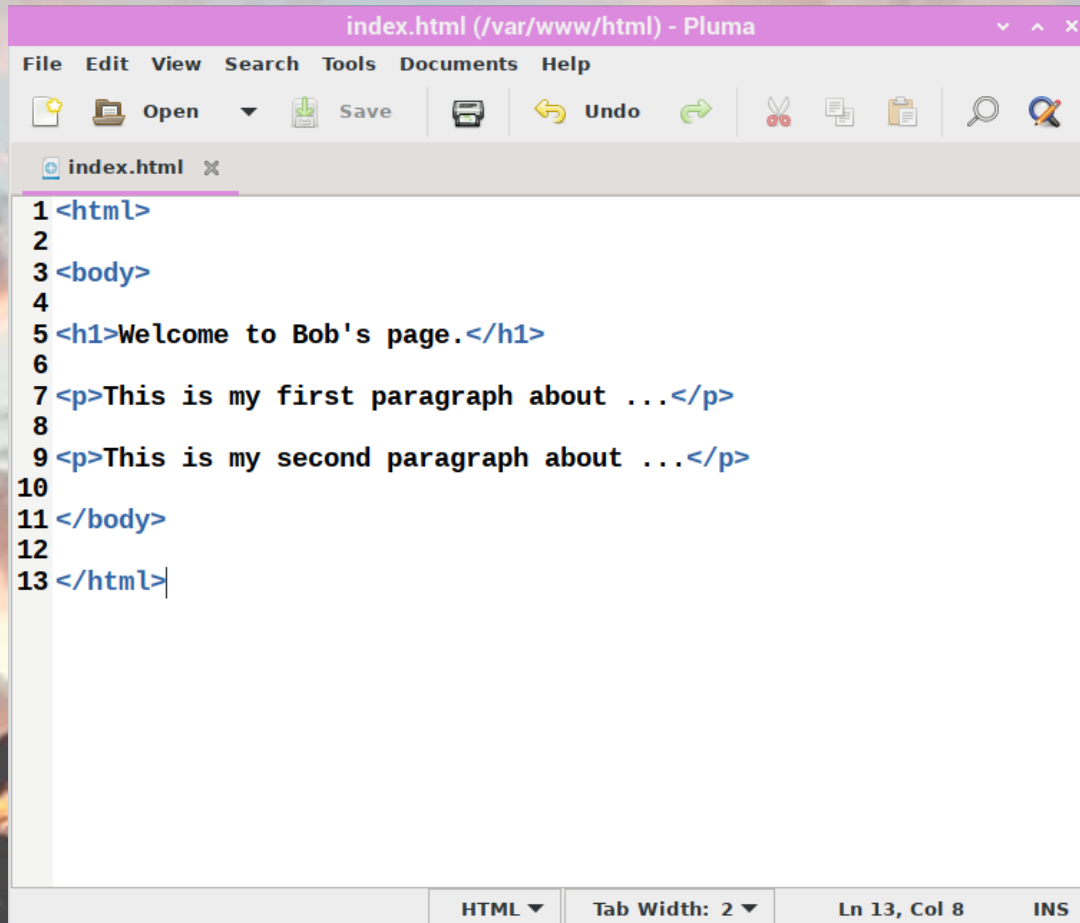
The screenshot shows the Pluma text editor with a menu bar (File, Edit, View, Search, Tools, Documents, Help) and a toolbar with icons for Open, Save, Undo, Redo, Cut, Copy, Paste, Find, and Print. The editor window displays the HTML code for index.html. The status bar at the bottom indicates the file is HTML, the tab width is 2, and the cursor is at line 9, column 8 in insert mode.

Web Browser (Chromium)



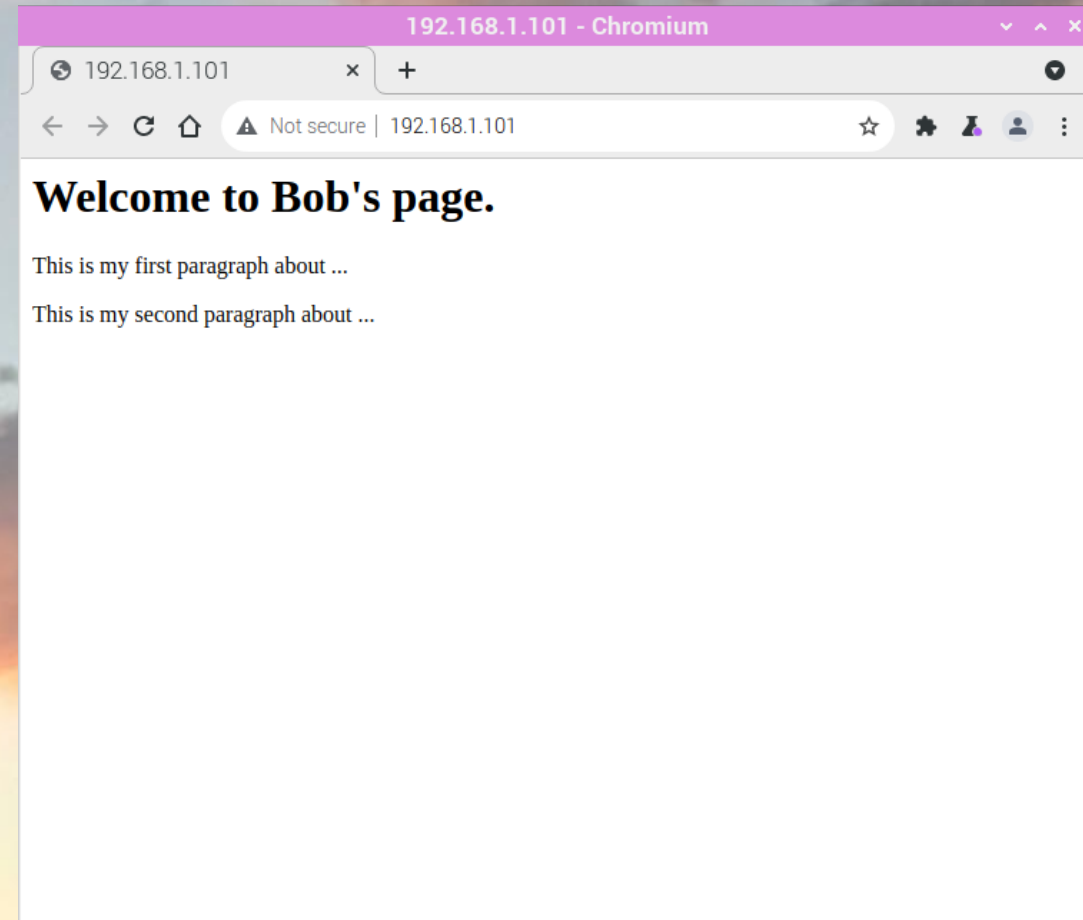
Add the `<body>` and `</body>` tags

Editor (Pluma)



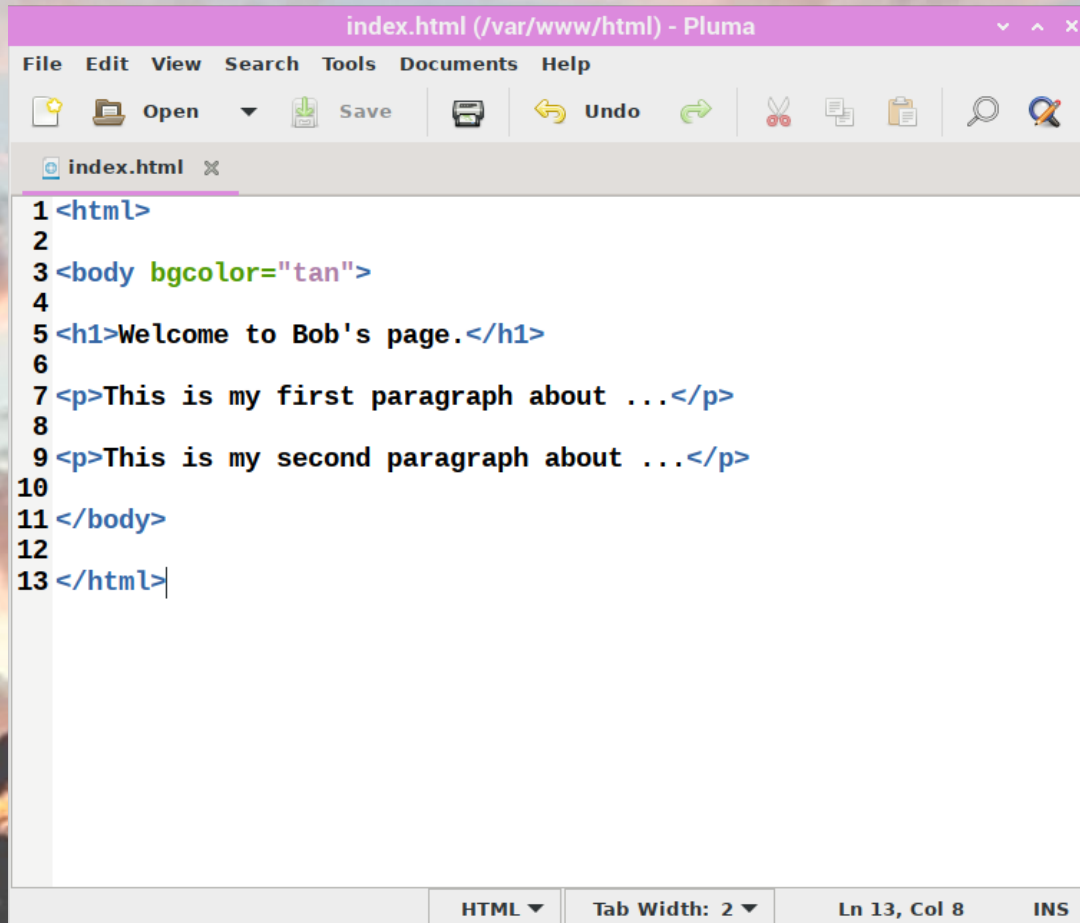
```
1 <html>
2
3 <body>
4
5 <h1>Welcome to Bob's page.</h1>
6
7 <p>This is my first paragraph about ...</p>
8
9 <p>This is my second paragraph about ...</p>
10
11 </body>
12
13 </html>
```

Web Browser (Chromium)



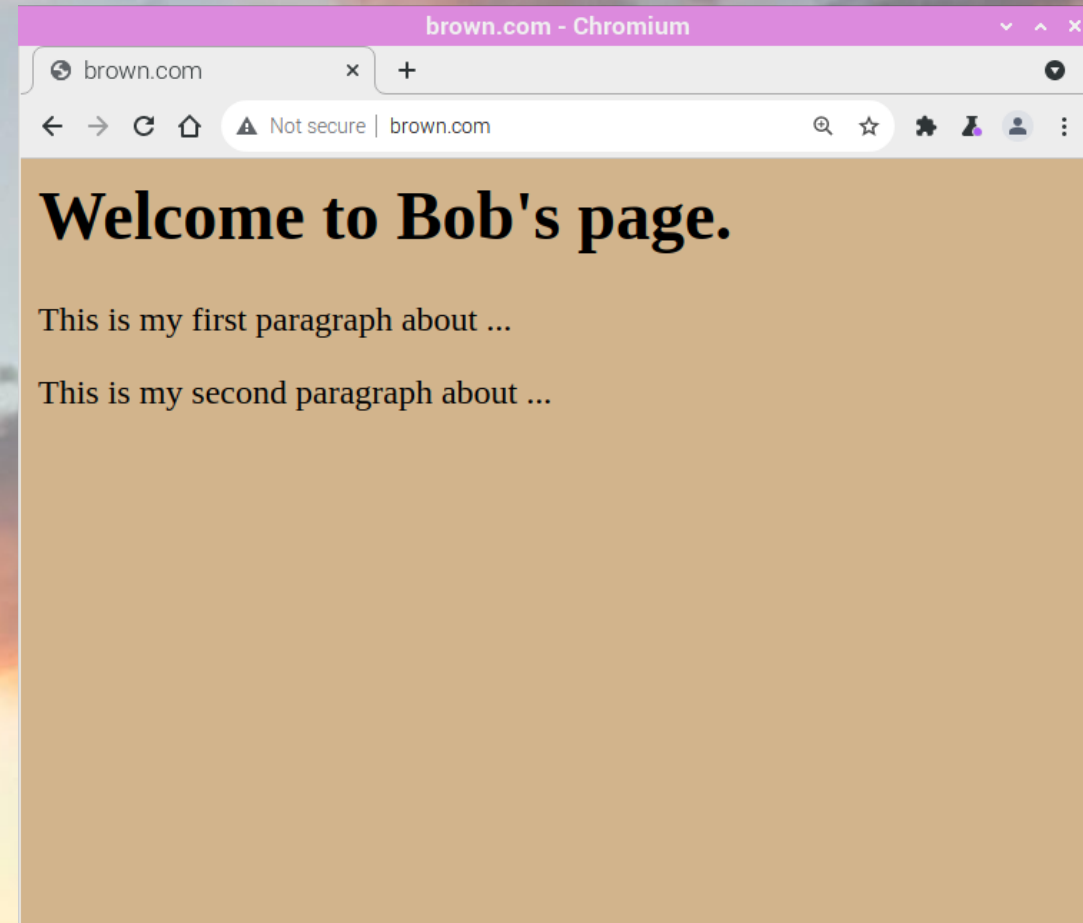
Add a background color to the <body> tag

Editor (Pluma)



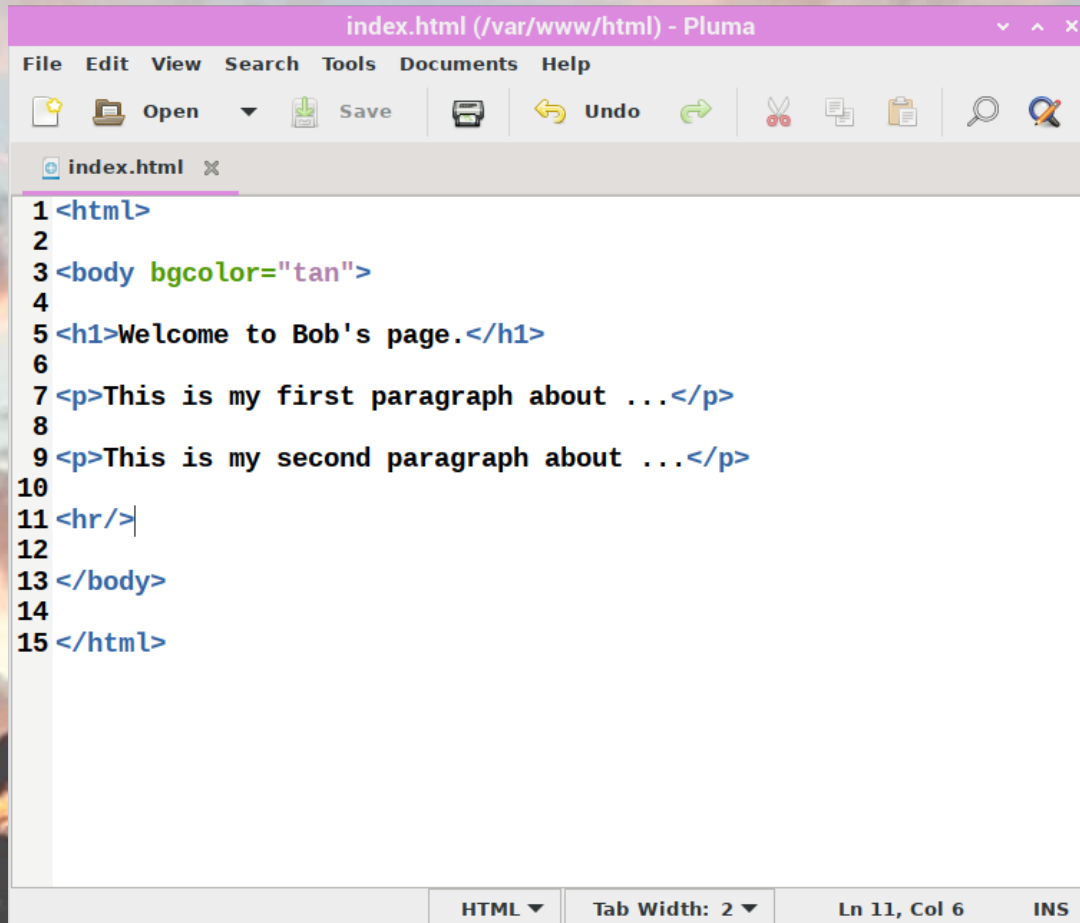
```
1 <html>
2
3 <body bgcolor="tan">
4
5 <h1>Welcome to Bob's page.</h1>
6
7 <p>This is my first paragraph about ...</p>
8
9 <p>This is my second paragraph about ...</p>
10
11 </body>
12
13 </html>
```

Web Browser (Chromium)



Add a Horizontal Rule tag: `<hr/>`

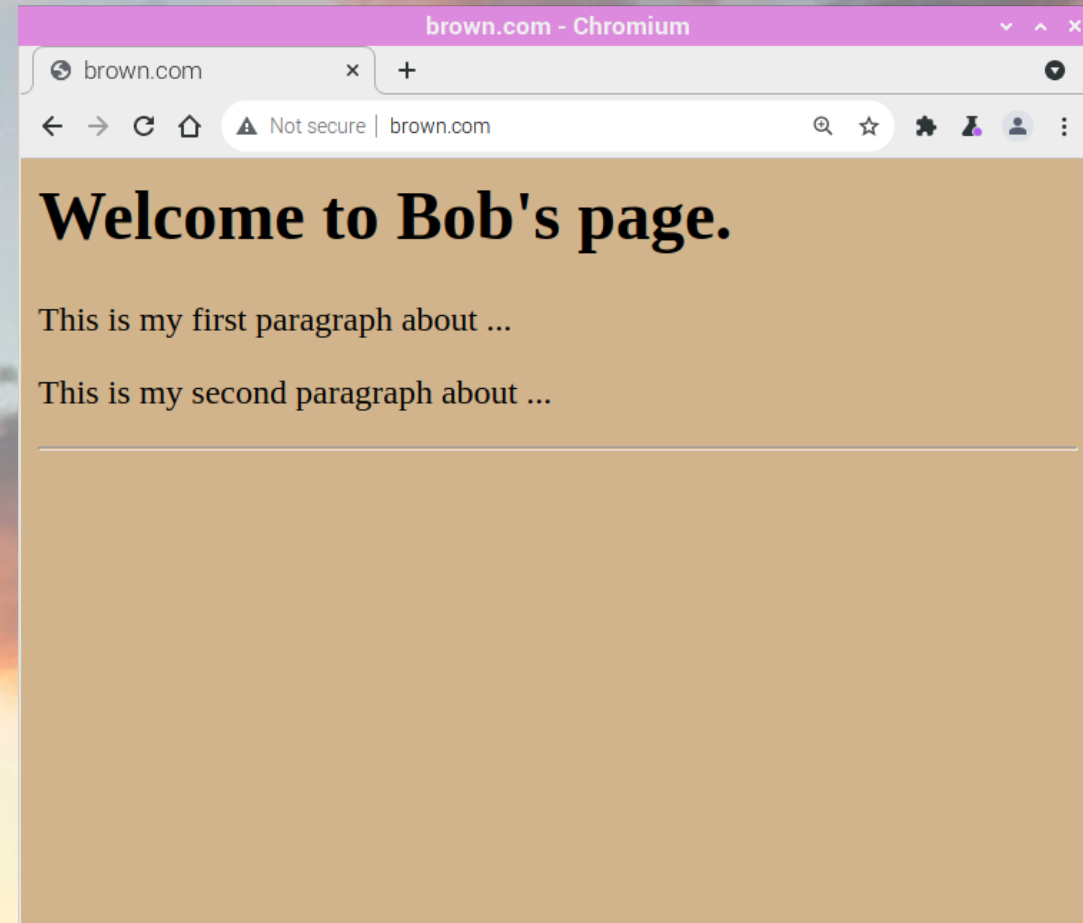
Editor (Pluma)



```
1 <html>
2
3 <body bgcolor="tan">
4
5 <h1>Welcome to Bob's page.</h1>
6
7 <p>This is my first paragraph about ...</p>
8
9 <p>This is my second paragraph about ...</p>
10
11 <hr/>
12
13 </body>
14
15 </html>
```

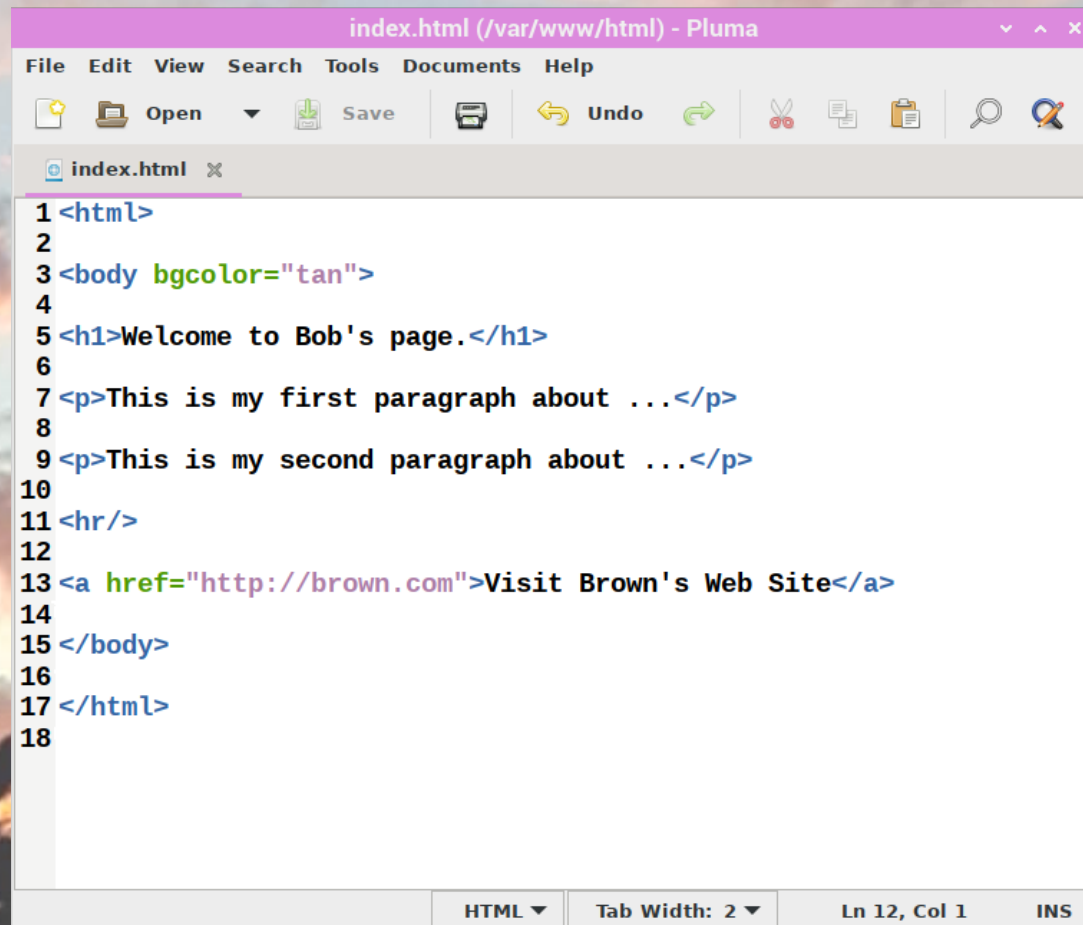
HTML ▾ Tab Width: 2 ▾ Ln 11, Col 6 INS

Web Browser (Chromium)



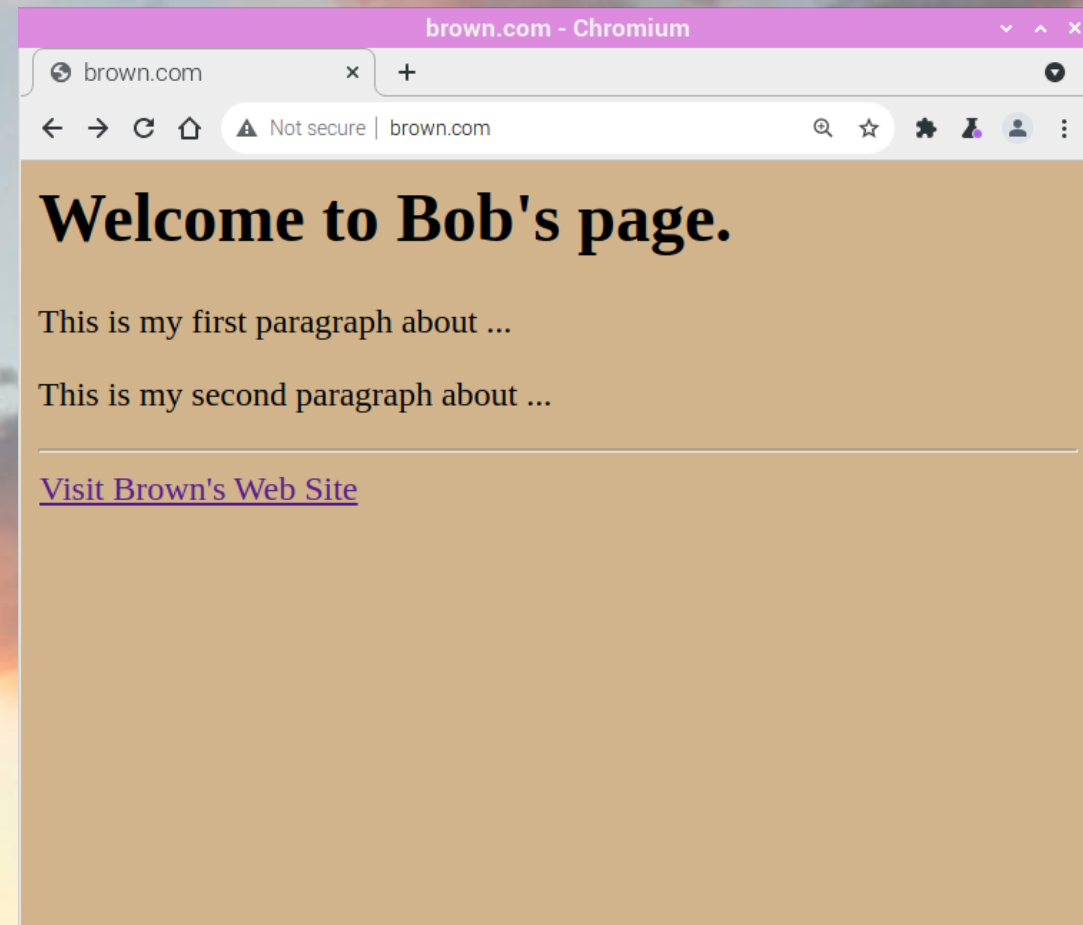
Add a link with `` `` tags

Editor (Pluma)



```
1 <html>
2
3 <body bgcolor="tan">
4
5 <h1>Welcome to Bob's page.</h1>
6
7 <p>This is my first paragraph about ...</p>
8
9 <p>This is my second paragraph about ...</p>
10
11 <hr/>
12
13 <a href="http://brown.com">Visit Brown's Web Site</a>
14
15 </body>
16
17 </html>
18
```

Web Browser (Chromium)

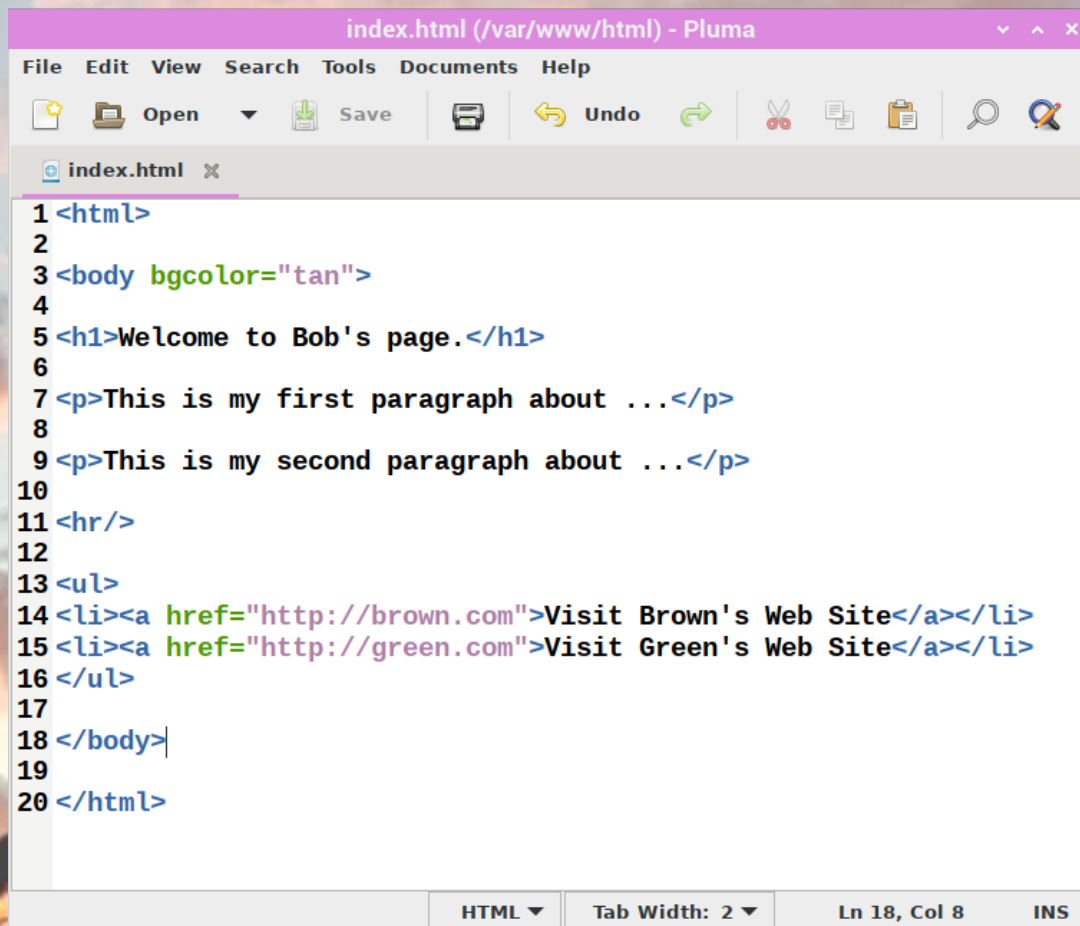


Click on the link!!

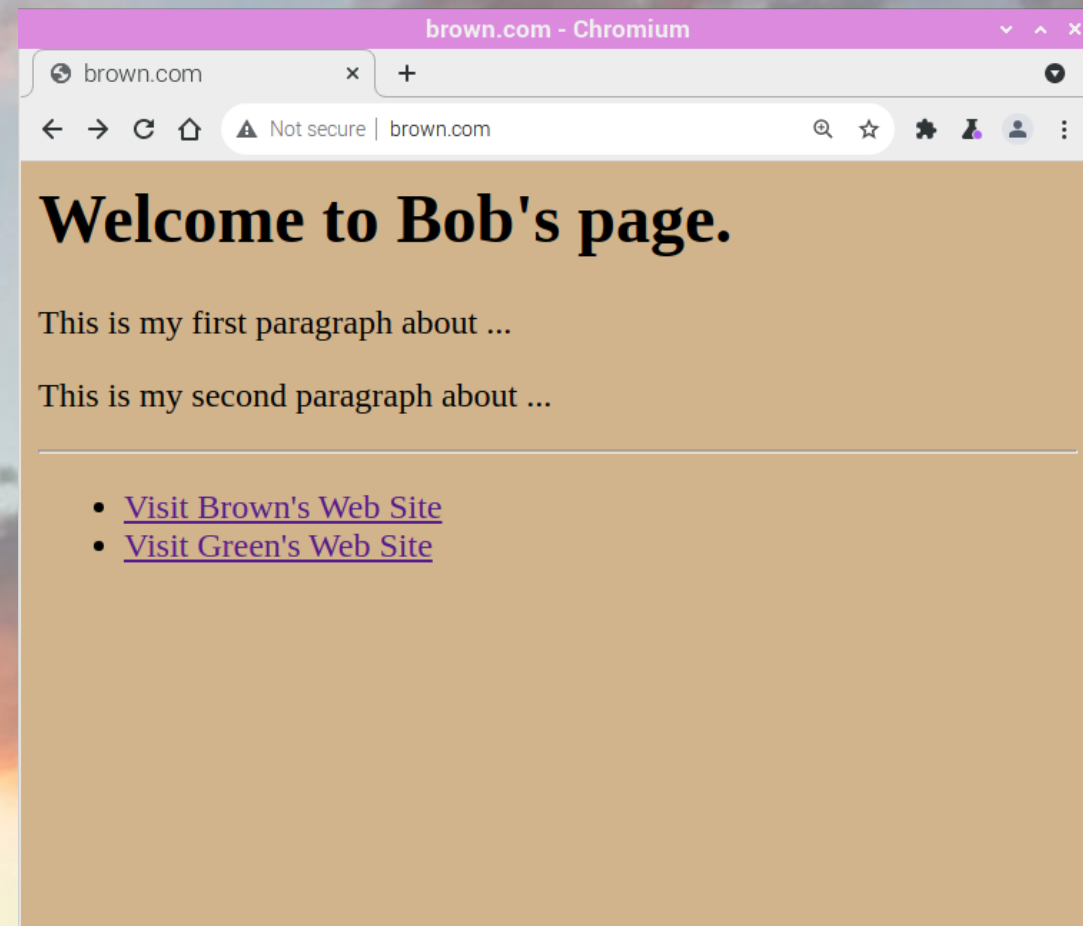
Use an “unordered list” with “list items”

Editor (Pluma)

Web Browser (Chromium)



```
1 <html>
2
3 <body bgcolor="tan">
4
5 <h1>Welcome to Bob's page.</h1>
6
7 <p>This is my first paragraph about ...</p>
8
9 <p>This is my second paragraph about ...</p>
10
11 <hr/>
12
13 <ul>
14 <li><a href="http://brown.com">Visit Brown's Web Site</a></li>
15 <li><a href="http://green.com">Visit Green's Web Site</a></li>
16 </ul>
17
18 </body>
19
20 </html>
```



Unordered Lists start with `` and end with ``.
Each List Item in any list starts with `` and ends
with ``. Ordered Lists use `` and ``.

Add an image and links for all web sites

Editor (Pluma)

```
*index.html (/var/www/html) - Pluma
File Edit View Search Tools Documents Help
Open Save Undo
*index.html x
1 <html>
2 <body bgcolor="tan">
3
4 <h1>Welcome to Bob's page.</h1>
5
6 </img>
7
8 <p>This is my first paragraph about ...</p>
9 <p>This is my second paragraph about ...</p>
10
11 <hr/>
12
13 <ul>
14 <li><a href="http://red.com">Visit Red's Web Site</a></li>
15 <li><a href="http://green.com">Visit Green's Web Site</a></li>
16 <li><a href="http://blue.com">Visit Blue's Web Site</a></li>
17 <li><a href="http://yellow.com">Visit Yellow's Web Site</a></li>
18 <li><a href="http://brown.com">Visit Brown's Web Site</a></li>
19 </ul>
20
21 </body>
22 </html>
HTML Tab Width: 2 Ln 13, Col 5 INS
```

Web Browser (Chromium)



The `` tag specifies an image with the “src=” parameter.
The width can similarly be set with the “width” parameter.

Conclusion

Building web pages is relatively easy. Web pages are mostly plain text with various tags to add additional “mark up” features. The tags can control the appearance and can also specify links or images.

Have fun!!