

Your big break at Starbuzz Coffee

Starbuzz Coffee has made a name for itself as the fastest growing coffee shop around. If you've seen one on your local corner, look across the street—you'll see another one.

In fact, they've grown so quickly, they haven't even managed to put up a web page yet...and therein lies your big break: By chance, while buying your Starbuzz Chai Tea, you run into the Starbuzz CEO...

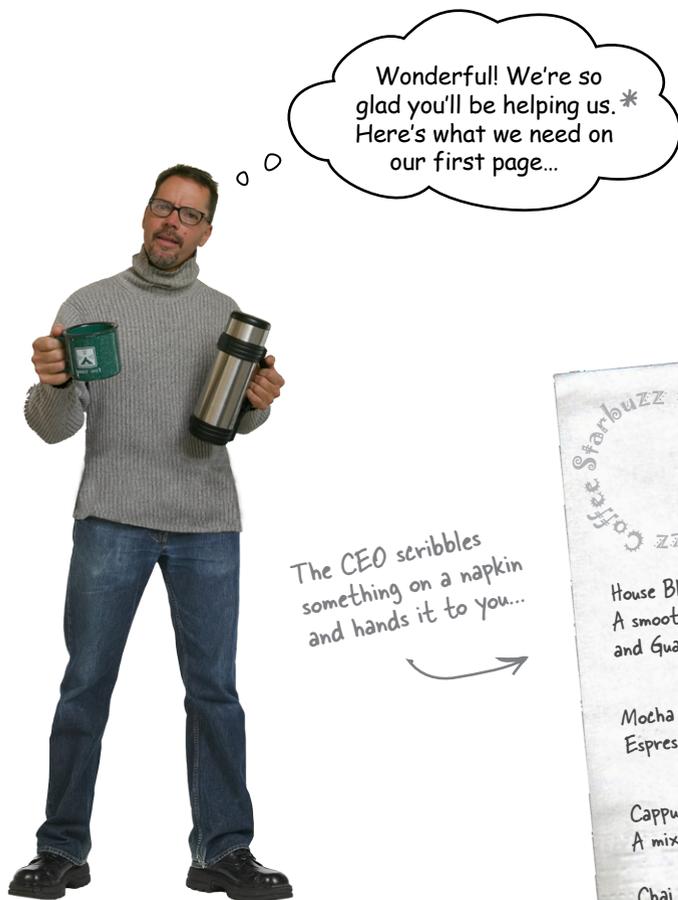


The Starbuzz CEO

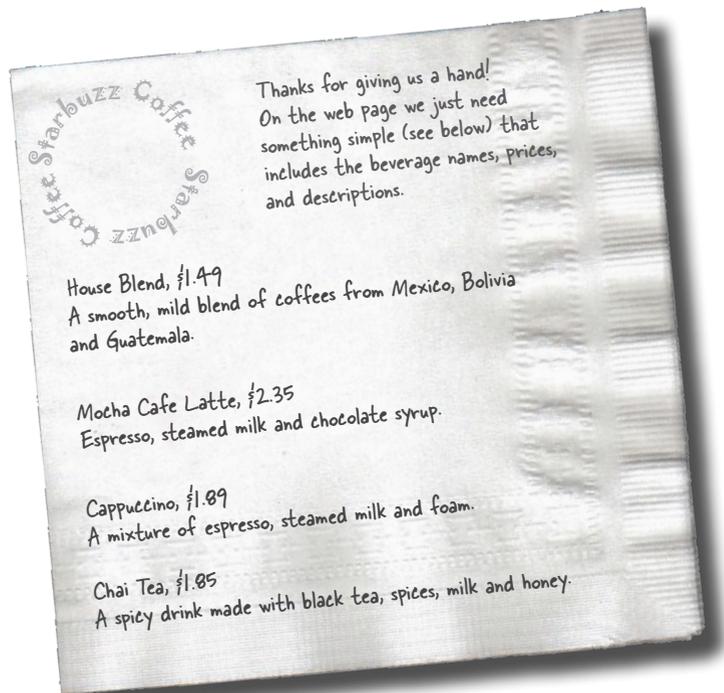


Decisions, decisions.
Check your first priority below (choose only one):

- A. Give dog a bath.
- B. Finally get my checking account balanced.
- C. Take the Starbuzz gig and launch BIG-TIME web career.
- D. Schedule dentist appointment.



The CEO scribbles something on a napkin and hands it to you...



Sharpen your pencil

Take a look at the napkin. Can you determine the *structure* of it? In other words, are there obvious headings? Paragraphs? Is it missing anything like a title?

Go ahead and mark up the napkin (using your pencil) with any structure you see, and add anything that is missing.

You'll find our answers at the end of Chapter 1.

* If by chance you chose option A, B, or D on the previous page, we recommend you donate this book to a good library, use it as kindling this winter, or what the heck, go ahead and sell it on Amazon and make some cash.

Creating the Starbuzz web page

Of course, the only problem with all this is that you haven't actually created any web pages yet. But that's why you decided to dive head first into HTML, right?

No worries, here's what you're going to do on the next few pages:

- 1 Create an HTML file using your favorite text editor.**
- 2 Type in the menu the Starbuzz CEO wrote on the napkin.**
- 3 Save the file as "index.html".**
- 4 Open the file "index.html" in your favorite browser, step back, and watch the magic happen.**

No pressure, but thousands of people are going to visit this web page when you're finished. It not only needs to be correct, it's gotta look great, too!

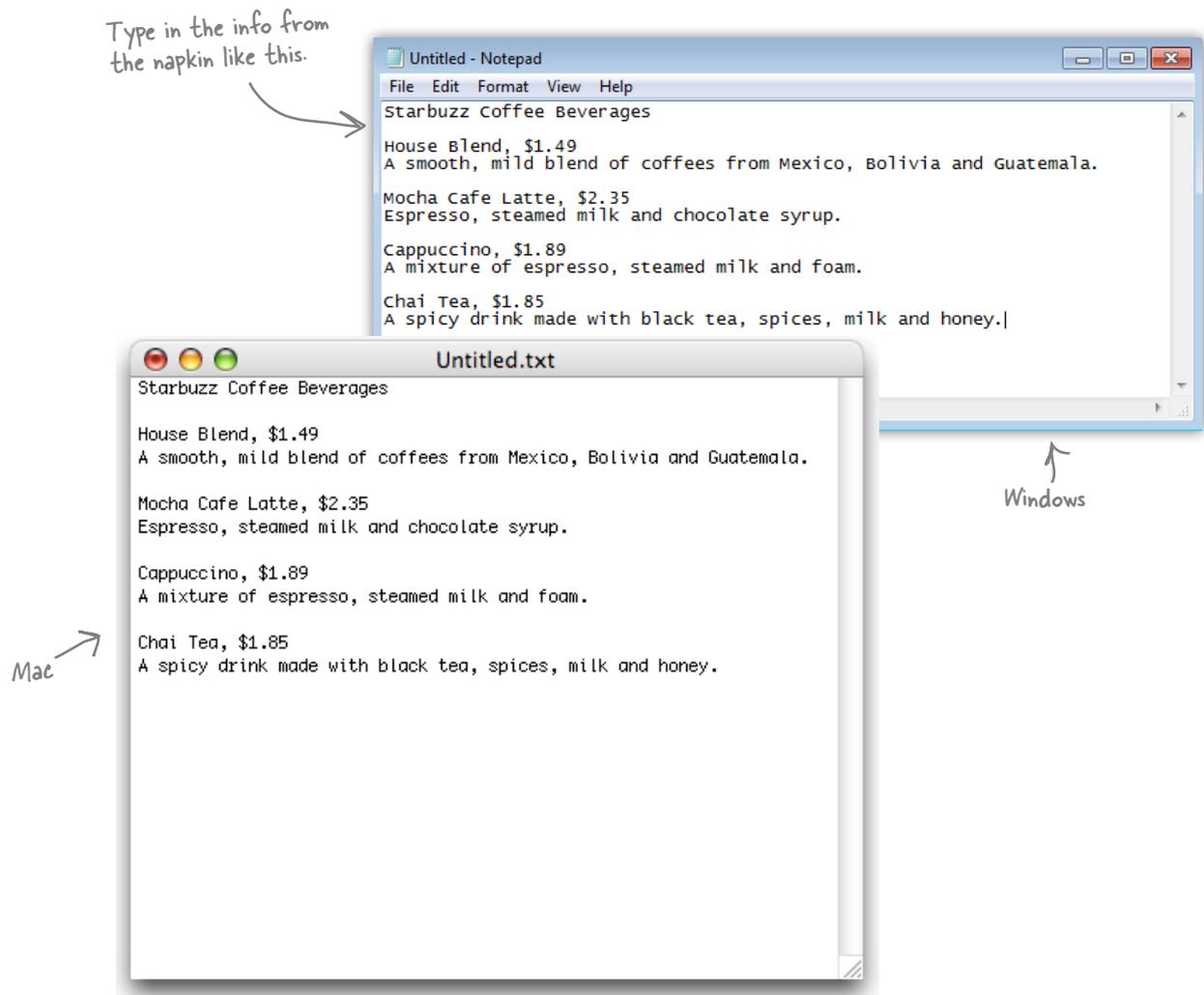




Meanwhile, back at Starbuzz Coffee...

Okay, now that you know the basics of creating a plain-text file, you just need to get some content into your text editor, save it, and then load it into your browser.

Start by typing in the beverages straight from the CEO's napkin; these beverages are the content for your page. You'll be adding some HTML markup to give the content some structure in a bit, but for now, just get the basic content typed in. While you're at it, go ahead and add "Starbuzz Coffee Beverages" at the top of the file.

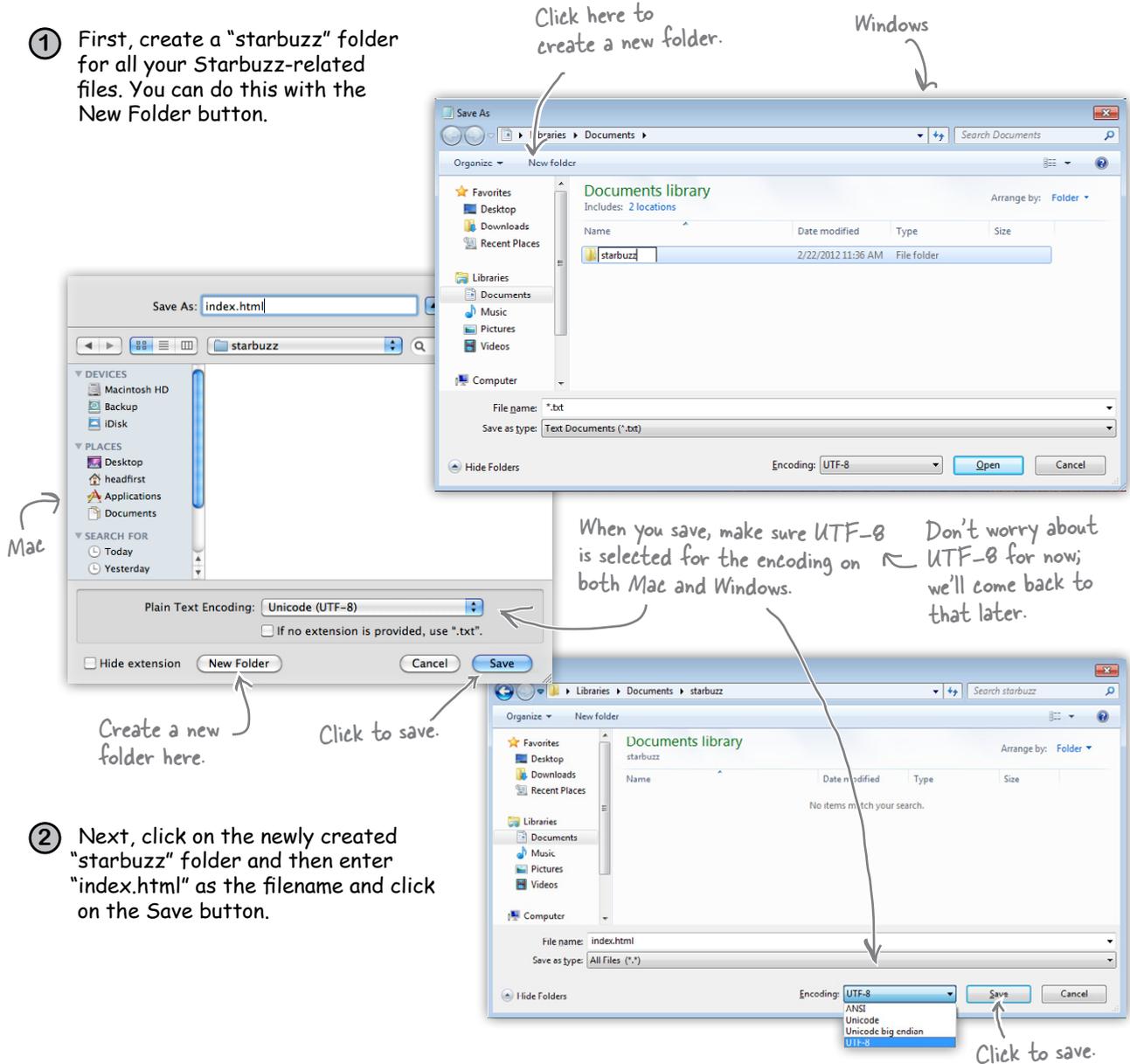


Saving your work

Once you've typed in the beverages from the CEO's napkin, you're going to save your work in a file called "index.html". Before you do that, you'll want to create a folder named "starbuzz" to hold the site's files.

To get this all started, choose Save from the File menu and you'll see a Save As dialog box. Then, here's what you need to do:

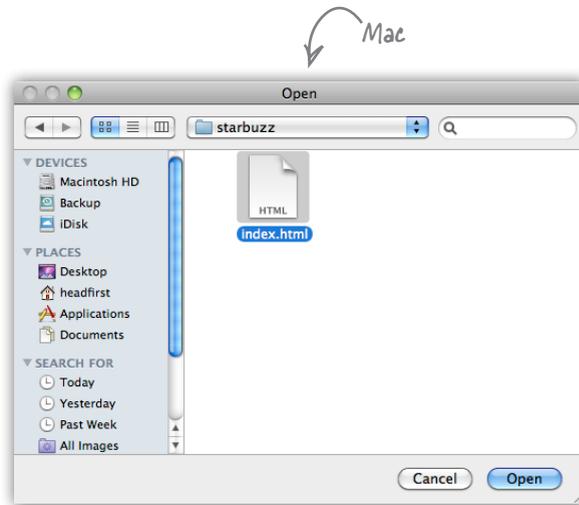
- 1 First, create a "starbuzz" folder for all your Starbuzz-related files. You can do this with the New Folder button.



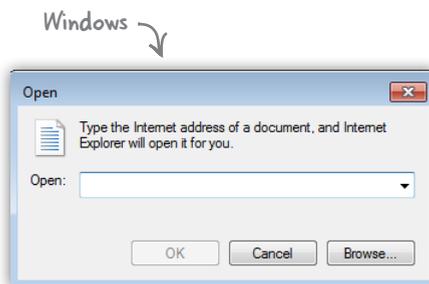
- 2 Next, click on the newly created "starbuzz" folder and then enter "index.html" as the filename and click on the Save button.

Opening your web page in a browser

Are you ready to open your first web page? Using your favorite browser, choose “Open File...” (or “Open...” using Windows 7 and Internet Explorer) from the File menu and navigate to your “index.html” file. Select it and click Open.

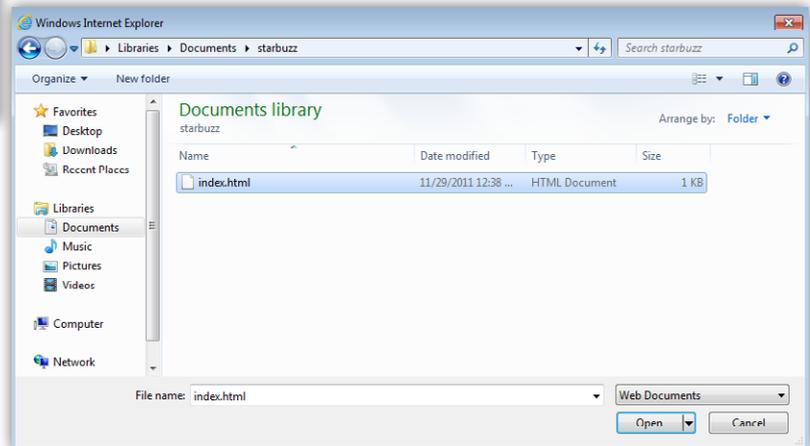


On the Mac, navigate to your file, and select it by clicking on the file icon and then on the Open button.



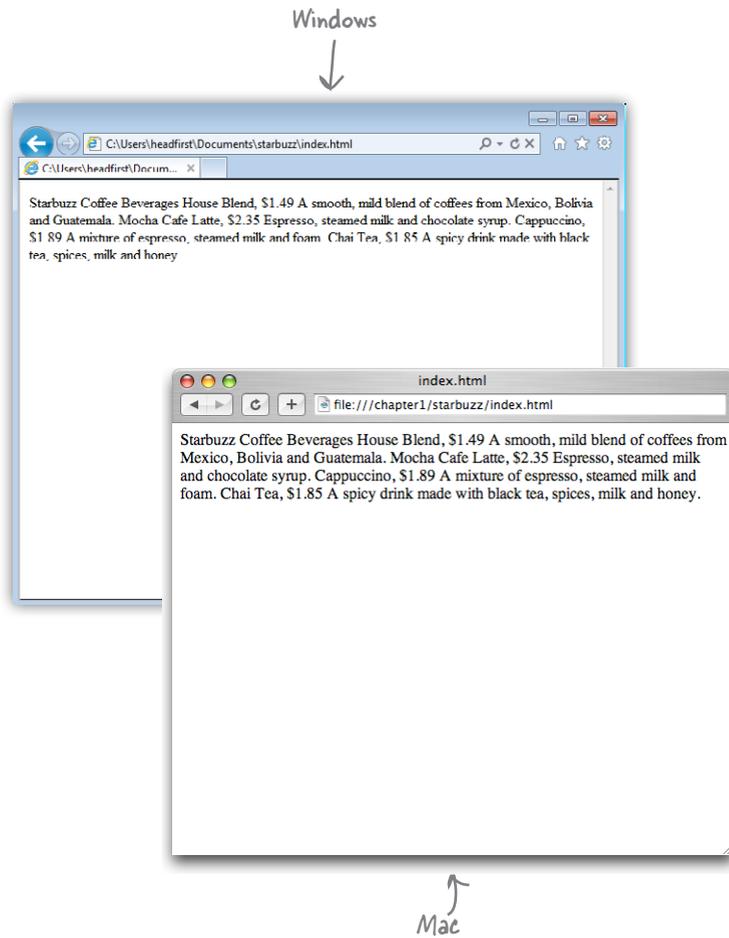
In Windows Internet Explorer it's a two-step process. First, you'll get the Open dialog box.

Then click Browse to get a browse dialog and navigate to where you saved your file.



Take your page for a test drive

Success! You've got the page loaded in the browser, although the results are a little...uh...unsatisfying. But that's just because all you've done so far is go through the mechanics of creating a page and viewing it in the browser. And so far, you've only typed in the *content* of the web page. That's where HTML comes in. HTML gives you a way to tell the browser about the *structure* of your page. What's structure? As you've already seen, it is a way of marking up your text so that the browser knows what's a heading, what text is in a paragraph, what text is a subheading, and so on. Once the browser knows a little about the structure, it can display your page in a more meaningful and readable manner.



Depending on your operating system and browser, often you can just double-click the HTML file or drag it on top of the browser icon to open it. Much simpler.



Markup Magnets

So, let's add that structure...

Your job is to add structure to the text from the Starbuzz napkin. Use the fridge magnets at the bottom of the page to mark up the text so that you've indicated which parts are headings, subheadings and paragraph text. We've already done a few to get you started. You won't need all the magnets below to complete the job; some will be left over.

`<h1>` Starbuzz Coffee Beverages `</h1>`

House Blend, \$1.49

A smooth, mild blend of coffees from Mexico, Bolivia and Guatemala.

`<h2>` Mocha Cafe Latte, \$2.35 `</h2>`

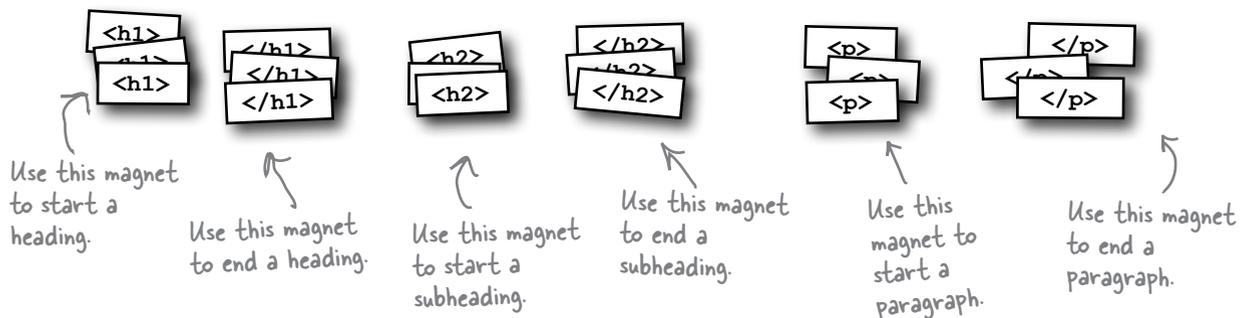
`<p>` Espresso, steamed milk and chocolate syrup. `</p>`

Cappuccino, \$1.89

A mixture of espresso, steamed milk and foam.

Chai Tea, \$1.85

A spicy drink made with black tea, spices, milk and honey.





Congratulations, you've just written your first HTML!

They might have looked like fridge magnets, but you were really *marking up* your text with HTML. Only, as you know, we usually refer to the magnets as *tags*.

Check out the markup below and compare it to your magnets on the previous page.

Use the `<h1>` and `</h1>` tags to mark headings. All the text in between is the actual content of the heading.

```
<h1>Starbuzz Coffee Beverages</h1>
```

```
<h2>House Blend, $1.49</h2>
```

```
<p>A smooth, mild blend of coffees from Mexico, Bolivia  
and Guatemala.</p>
```

```
<h2>Mocha Cafe Latte, $2.35</h2>
```

```
<p>Espresso, steamed milk and chocolate syrup.</p>
```

```
<h2>Cappuccino, $1.89</h2>
```

```
<p>A mixture of espresso, steamed milk and foam.</p>
```

```
<h2>Chai Tea, $1.85</h2>
```

```
<p>A spicy drink made with black tea, spices, milk and  
honey.</p>
```

The `<h2>` and `</h2>` tags go around a subheading. Think of an `<h2>` heading as a subheading of an `<h1>` heading.

The `<p>` and `</p>` tags go around a block of text that is a paragraph. That can be one or many sentences.

Notice that you don't have to put matching tags on the same line. You can put as much content as you like between them.

Are we there yet?

You have an HTML file with markup—does that make a web page? Almost. You've already seen the `<html>`, `<head>`, `<title>`, and `<body>` tags, and we just need to add those to make this a first-class HTML page...

First, surround your HTML with `<html>` & `</html>` tags. This tells the browser the content of the file is HTML.

Next add `<head>` and `</head>` tags. The head contains information about your web page, like its title. For now, think about it this way: the head allows you to tell the browser things about the web page.

Go ahead and put a title inside the head. The title usually appears at the top of the browser window.

```
<html>
```

```
<head>
```

```
<title>Starbuzz Coffee</title>
```

```
</head>
```

The head consists of the `<head>` & `</head>` tags and everything in between.

```
<body>
```

```
<h1>Starbuzz Coffee Beverages</h1>
```

```
<h2>House Blend, $1.49</h2>
```

```
<p>A smooth, mild blend of coffees from Mexico,  
Bolivia and Guatemala.</p>
```

```
<h2>Mocha Cafe Latte, $2.35</h2>
```

```
<p>Espresso, steamed milk and chocolate syrup.</p>
```

```
<h2>Cappuccino, $1.89</h2>
```

```
<p>A mixture of espresso, steamed milk and foam.</p>
```

```
<h2>Chai Tea, $1.85</h2>
```

```
<p>A spicy drink made with black tea, spices,  
milk and honey.</p>
```

```
</body>
```

The body consists of the `<body>` & `</body>` tags and everything in between.

```
</html>
```

The body contains all the content and structure of your web page—the parts of the web page that you see in your browser.

Keep your head and body separate when writing HTML.



Tags dissected

Okay, you've seen a bit of markup, so let's zoom in and take a look at how tags really work.



You usually put tags around some piece of content. Here we're using tags to tell the browser that our content, "Starbuzz Coffee Beverages," is a top-level heading (that is, heading level one).

Here's the opening tag that begins the heading.

This is the closing tag that ends the heading; in this case the `</h1>` tag is ending an `<h1>` heading. You know it's a closing tag because it comes after the content, and it's got a `/` before the `h1`. All closing tags have a `/` in them.

`<h1> Starbuzz Coffee Beverages </h1>`

Tags consist of the tag name surrounded by angle brackets; that is, the `<` and `>` characters.

The whole shebang is called an element. In this case, we can call it the `<h1>` element. An element consists of the enclosing tags and the content in between.

We call an opening tag and its closing tag matching tags.

To tell the browser about the structure of your page, use pairs of tags around your content.

Remember:

Element = Opening Tag + Content + Closing Tag

there are no Dumb Questions

Q: So matching tags don't have to be on the same line?

A: No; remember the browser doesn't really care about tabs, returns, and most spaces. So, your tags can start and end anywhere on the same line, or they can start and end on different lines. Just make sure you start with an opening tag, like `<h2>`, and end with a closing tag, like `</h2>`.

Q: Why do the closing tags have that extra "/"?

A: That "/" in the closing tag is to help both you and the browser know where a particular piece of structured content ends. Otherwise, the closing tags would look just like the opening tags, right?

Q: I've noticed the HTML in some pages doesn't always match opening tags with closing tags.

A: Well, the tags are supposed to match. In general, browsers do a pretty good job of figuring out what you mean if you write incorrect HTML. But, as you're going to see, these days there are big benefits to writing totally correct HTML. If you're worried you'll never be able to write perfect HTML, don't be; there are plenty of tools to verify your code before you put it on a web server so the whole world can see it. For now, just get in the habit of always matching your opening tags with closing tags.

Q: Well, what about that `` tag in the lounge example? Did you forget the closing tag?

A: Wow, sharp eye. There are some elements that use a shorthand notation with only one tag. Keep that in the back of your mind for now, and we'll come back to it in a later chapter.

Q: An element is an opening tag + content + closing tag, but can't you have tags inside other tags? Like the `<head>` and `<body>` are inside an `<html>` tag?

A: Yes, HTML tags are often "nested" like that. If you think about it, it's natural for an HTML page to have a body, which contains a paragraph, and so on. So many HTML elements have other HTML elements between their tags. We'll take a good look at this kind of thing in later chapters, but for now just get your mind noticing how the elements relate to each other in a page.



Tags can be a little more interesting than what you've seen so far. Here's the paragraph tag with a little extra added to it. What do you think this does?

```
<p id="houseblend">A smooth, mild  
blend of coffees from Mexico, Bolivia  
and Guatemala.</p>
```



Okay, it looks like you're getting somewhere. You've got the main page and the mission page all set. But don't forget the CEO said the site needs to look great too. Don't you think it needs a little style?

Right. We have the structure down, so now we're going to concentrate on its presentation.

You already know that HTML gives you a way to describe the structure of the content in your files. When the browser displays your HTML, it uses its own built-in default style to present this structure. But relying on the browser for style obviously isn't going to win you any "designer of the month" awards.

That's where CSS comes in. CSS gives you a way to describe how your content should be presented. Let's get our feet wet by creating some CSS that makes the Starbuzz page look a little more presentable (and launch your web career in the process).

CSS is an abbreviation for Cascading Style Sheets. We'll get into what that all means later, but for now just know that CSS gives you a way to tell the browser how elements in your page should look.

Meet the style element

To add style, you add a new (say it with us) E-L-E-M-E-N-T to your page—the `<style>` element. Let's go back to the main Starbuzz page and add some style. Check it out...

```

<html>
  <head>
    <title>Starbuzz Coffee</title>
    <style type="text/css">
  </style>
  </head>
  <body>
    <h1>Starbuzz Coffee Beverages</h1>

    <h2>House Blend, $1.49</h2>
    <p>A smooth, mild blend of coffees from Mexico, Bolivia and
    Guatemala.</p>

    <h2>Mocha Caffe Latte, $2.35</h2>
    <p>Espresso, steamed milk and chocolate syrup.</p>

    <h2>Cappuccino, $1.89</h2>
    <p>A mixture of espresso, steamed milk and milk foam.</p>

    <h2>Chai Tea, $1.85</h2>
    <p>A spicy drink made with black tea, spices, milk and honey.</p>
  </body>
</html>

```

The `<style>` element is placed inside the head of your HTML.

Just like other elements, the `<style>` element has an opening tag, `<style>`, and a closing tag, `</style>`.

The `<style>` tag also has an (optional) attribute, called `type`, which tells the browser the kind of style you're using. Because you're going to use CSS, you can specify the "text/css" type.

And here's where you're going to define the styles for the page.

there are no Dumb Questions

Q: An element can have an "attribute"? What does that mean?

A: Attributes give you a way to provide additional information about an element. Like, if you have a `<style>` element, the attribute allows you to say exactly what kind of style you're talking about. You'll be seeing a lot more attributes for various elements; just remember they give you some extra info about the element.

Q: Why do I have to specify the type of the style ("text/css") as an attribute of the style? Are there other kinds of style?

A: At one time the designers of HTML thought there would be other styles, but as it turns out we've all come to our senses since then and you can just use `<style>` without an attribute—all the browsers will know you mean CSS. We're disappointed; we were holding our breath for the `<style type="50sKitsch">` style. Oh well.

Giving Starbuzz some style...

Now that you've got a `<style>` element in the HTML head, all you need to do is supply some CSS to give the page a little pizzazz. Below you'll find some CSS already "baked" for you. Whenever you see the  logo, you're seeing HTML and CSS that you should type in as-is. *Trust us.* You'll learn how the markup works later, after you've seen what it can do.

So, take a look at the CSS and then add it to your "index.html" file. Once you've got it typed in, save your file.



←
CSS uses a syntax that
is totally different
from HTML.

```
<html>
  <head>
    <title>Starbuzz Coffee</title>
    <style type="text/css">
      body {
        background-color: #d2b48c;
        margin-left: 20%;
        margin-right: 20%;
        border: 2px dotted black;
        padding: 10px 10px 10px 10px;
        font-family: sans-serif;
      }
    </style>
  </head>
  <body>
    <h1>Starbuzz Coffee Beverages</h1>
    <h2>House Blend, $1.49</h2>
    <p>A smooth, mild blend of coffees from Mexico, Bolivia and
    Guatemala.</p>
    <h2>Mocha Caffe Latte, $2.35</h2>
    <p>Espresso, steamed milk and chocolate syrup.</p>
    <h2>Cappuccino, $1.89</h2>
    <p>A mixture of espresso, steamed milk and milk foam.</p>
    <h2>Chai Tea, $1.85</h2>
    <p>A spicy drink made with black tea, spices, milk and honey.</p>
  </body>
</html>
```

Cruisin' with style...

It's time for another test drive, so reload your "index.html" file again. This time, you'll see the Starbuzz web page has a whole new look.

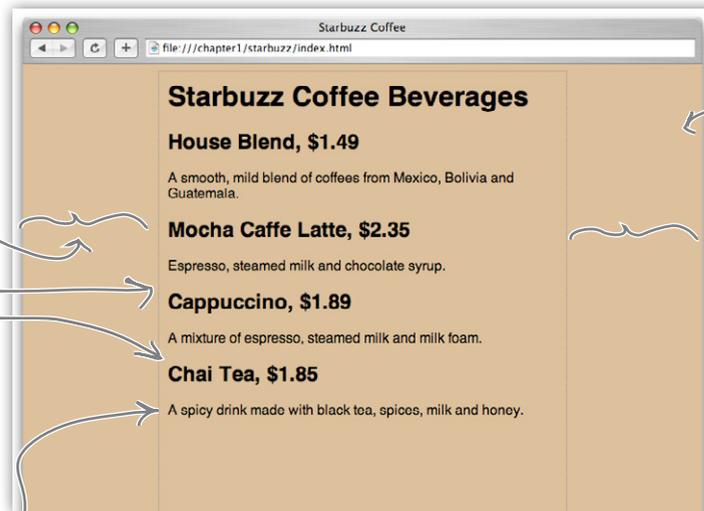
Background color is now tan.

Now we have margins around the content.

We've got a black dotted border around the content.

There's now some padding between the content and the border (on all sides).

We're using a different font for a cleaner look.



Margin



Watch it!

If you're using IE, you might not see the border.

Internet Explorer does not display the border around the body correctly. Try loading the page in Firefox, Chrome or Safari to see the border.

Whoa! Very nice. We're in business now!



WHO DOES WHAT?

Even though you've just glanced at CSS, you've already begun to see what it can do. Match each line in the style definition to what it does.

```
background-color: #d2b48c;
```

Defines the font to use for text.

```
margin-left: 20%;
```

```
margin-right: 20%;
```

Defines a border around the body that is dotted and the color black.

```
border: 2px dotted black;
```

Sets the left and right margins to take up 20% of the page each.

```
padding: 10px 10px 10px 10px;
```

Sets the background color to tan.

```
font-family: sans-serif;
```

Creates some padding around the body of the page.

there are no Dumb Questions

Q: CSS looks like a totally different language than HTML. Why have two languages? That's just more for me to learn, right?

A: You are quite right that HTML and CSS are completely different languages, but that is because they have very different jobs. Just like you wouldn't use English to balance your checkbook, or math to write a poem, you don't use CSS to create structure or HTML to create style because that's not what they were designed for. While this does mean you need to learn two languages,

you'll discover that because each language is good at what it does, this is actually easier than if you had to use one language to do both jobs.

Q: #d2b48c doesn't look like a color. How is #d2b48c the color "tan"?

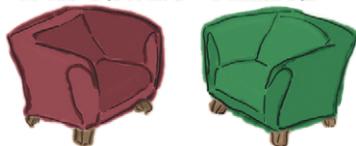
A: There are a few different ways to specify colors with CSS. The most popular is called a "hex code," which is what #d2b48c is. This really is a tan color. For now, just go with it, and we'll be showing you exactly how #d2b48c is a color a little later.

Q: Why is there a "body" in front of the CSS rules? What does that mean?

A: The "body" in the CSS means that all the CSS between the "{" and "}" applies to content within the HTML <body> element. So when you set the font to sans-serif, you're saying that the default font within the body of your page should be sans-serif.

We'll go into a lot more detail about how CSS works shortly, so keep reading. Soon, you'll see that you can be a lot more specific about how you apply these rules, and by doing so, you can create some pretty cool designs.

Fireside Chats



Tonight's talk: **HTML and CSS on content and style**

HTML

Greetings, CSS; I'm glad you're here because I've been wanting to clear up some confusion about us.

Lots of people think that my tags tell the browsers how to *display* the content. It's just not true! I'm all about *structure*, not presentation.

Well, you can see how some people might get confused; after all, it's possible to use HTML without CSS and still get a decent-looking page.

Hey, I'm pretty powerful too. Having your content structured is much more important than having it look good. Style is so superficial; it's the structure of the content that matters.

Whoa, what an ego! Well, I guess I shouldn't expect anything else from you—you're just trying to make a fashion statement with all that style you keep talking about.

CSS

Really? What kind of confusion?

Heck yeah—I don't want people giving you credit for my work!

"Decent" might be overstating it a bit, don't you think? I mean, the way most browsers display straight HTML looks kinda crappy. People need to learn how powerful CSS is and how easily I can give their web pages great style.

Get real! Without me, web pages would be pretty damn boring. Not only that, but take away the ability to style pages and no one is going to take your pages seriously. Everything is going to look clumsy and unprofessional.

HTML

Right. In fact, we're totally different languages, which is good because I wouldn't want any of your style designers messing with my structure elements.

Yeah, that is obvious to me any time I look at CSS—talk about an alien language.

Millions of web writers would disagree with you. I've got a nice clean syntax that fits right in with the content.

Hey, ever heard of closing tags?

Just notice that no matter where you go, I've got you surrounded by `<style>` tags. Good luck escaping!

CSS

Fashion statement? Good design and layout can have a huge effect on how readable and usable pages are. And you should be happy that my flexible style rules allow designers to do all kinds of interesting things with your elements without messing up your structure.

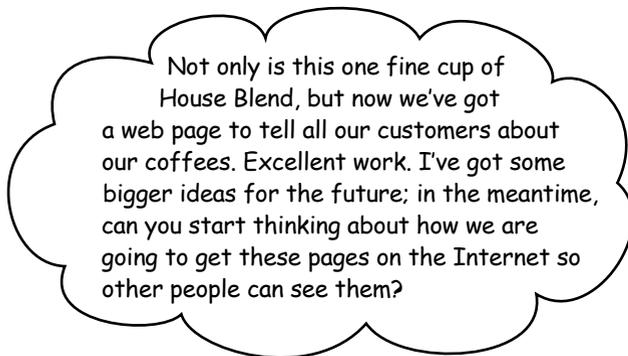
Don't worry, we're living in separate universes.

Yeah, like HTML can be called a language? Who has ever seen such a clunky thing with all those tags?

Just take a look at CSS; it's so elegant and simple, no goofy angle brackets `<around>` `<everything>`. `<See>` `<I>` `<can>` `<talk>` `<just>` `<like>` `<Mr.>` `<HTML>` `<, >` `<look>` `<at>` `<me>` `<!>`

Ha! I'll show you...because, guess what? I *can* escape...

 Stay tuned!



BULLET POINTS

- HTML and CSS are the languages we use to create web pages.
- Web servers store and serve web pages, which are created from HTML and CSS. Browsers retrieve pages and render their content based on the HTML and CSS.
- HTML is an abbreviation for HyperText Markup Language and is used to structure your web page.
- CSS is an abbreviation for Cascading Style Sheets, and is used to control the presentation of your HTML.
- Using HTML, we mark up content with tags to provide structure. We call matching tags, and their enclosed content, elements.
- An element is composed of three parts: an opening tag, content, and a closing tag. There are a few elements, like ``, that are an exception to this rule.
- Opening tags can have attributes. We've seen one already: `type`.
- Closing tags have a `/` after the left angle bracket, in front of the tag name, to distinguish them as closing tags.
- Your pages should always have an `<html>` element along with a `<head>` element and a `<body>` element.
- Information about the web page goes into the `<head>` element.
- What you put into the `<body>` element is what you see in the browser.
- Most whitespace (tabs, returns, spaces) is ignored by the browser, but you can use it to make your HTML more readable (to you).
- You can add CSS to an HTML web page by putting the CSS rules inside the `<style>` element. The `<style>` element should always be inside the `<head>` element.
- You specify the style characteristics of the elements in your HTML using CSS.

Sharpen your pencil Solution

Go ahead and mark up the napkin (using your pencil) with any structure you see, and add anything that is missing.

Not going to be part of the web page

Add a page heading

Starbuzz Coffee Beverages

~~Thanks for giving us a hand!
On the web page we just need something simple (see below) that includes the beverage names, prices, and descriptions.~~

A subheading

House Blend, \$1.49

A smooth, mild blend of coffees from Mexico, Bolivia and Guatemala.

Another subheading

Mocha Cafe Latte, \$2.35

Espresso, steamed milk and chocolate syrup.

Paragraphs.

More subheadings

Cappuccino, \$1.89

A mixture of espresso, steamed milk and foam.

Chai Tea, \$1.85

A spicy drink made with black tea, spices, milk and honey.



Markup Magnets Solution

Your job was to add some structure to the text from the Starbuzz napkin. Use the fridge magnets at the bottom of the page to mark up the text so that you've indicated which parts are headings, subheadings, and paragraph text. Here's our solution.

```
<h1> Starbuzz Coffee Beverages </h1>
```

```
<h2> House Blend, $1.49 </h2>
```

```
<p> A smooth, mild blend of coffees from Mexico, Bolivia and  
Guatemala. </p>
```

```
<h2> Mocha Cafe Latte, $2.35 </h2>
```

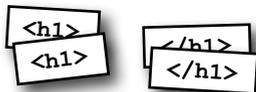
```
<p> Espresso, steamed milk and chocolate syrup. </p>
```

```
<h2> Cappuccino, $1.89 </h2>
```

```
<p> A mixture of espresso, steamed milk and foam. </p>
```

```
<h2> Chai Tea, $1.85 </h2>
```

```
<p> A spicy drink made with black tea, spices, milk and honey. </p>
```



Leftover magnets