



# FRONT-END FOUNDATIONS





# LEVEL 4 IMAGES



# The three types of webpage images

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Most images on webpages fall into one of these three categories

- Content Images
- Layout Images
- User Interface Images





# Content images

Content images are any images that are just as necessary to the page as all of the text.

**Digital Cameras Best Sellers**



Canon EOS Rebel T3 12.2 MP CMOS...  
★★★★★ (758)  
~~\$449.00~~ **\$299.00**



Canon PowerShot SX510 HS 12.1 MP CMOS...  
★★★★★ (319)  
~~\$249.00~~ **\$199.00**

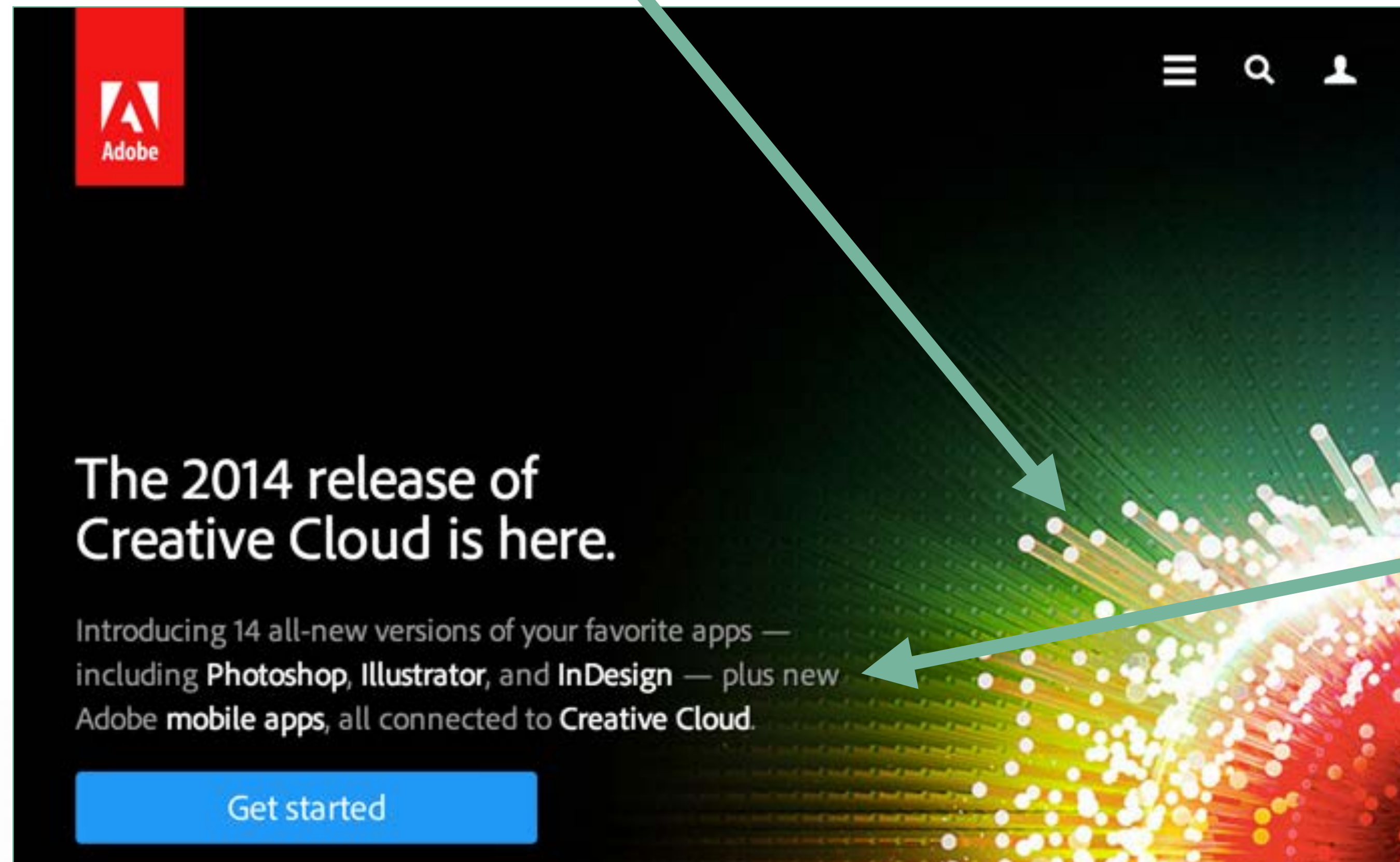
[▶ See all best sellers in Digital Cameras](#)





# Layout images

These are in the background, and are not necessary to understand the content of the page.



actual important content

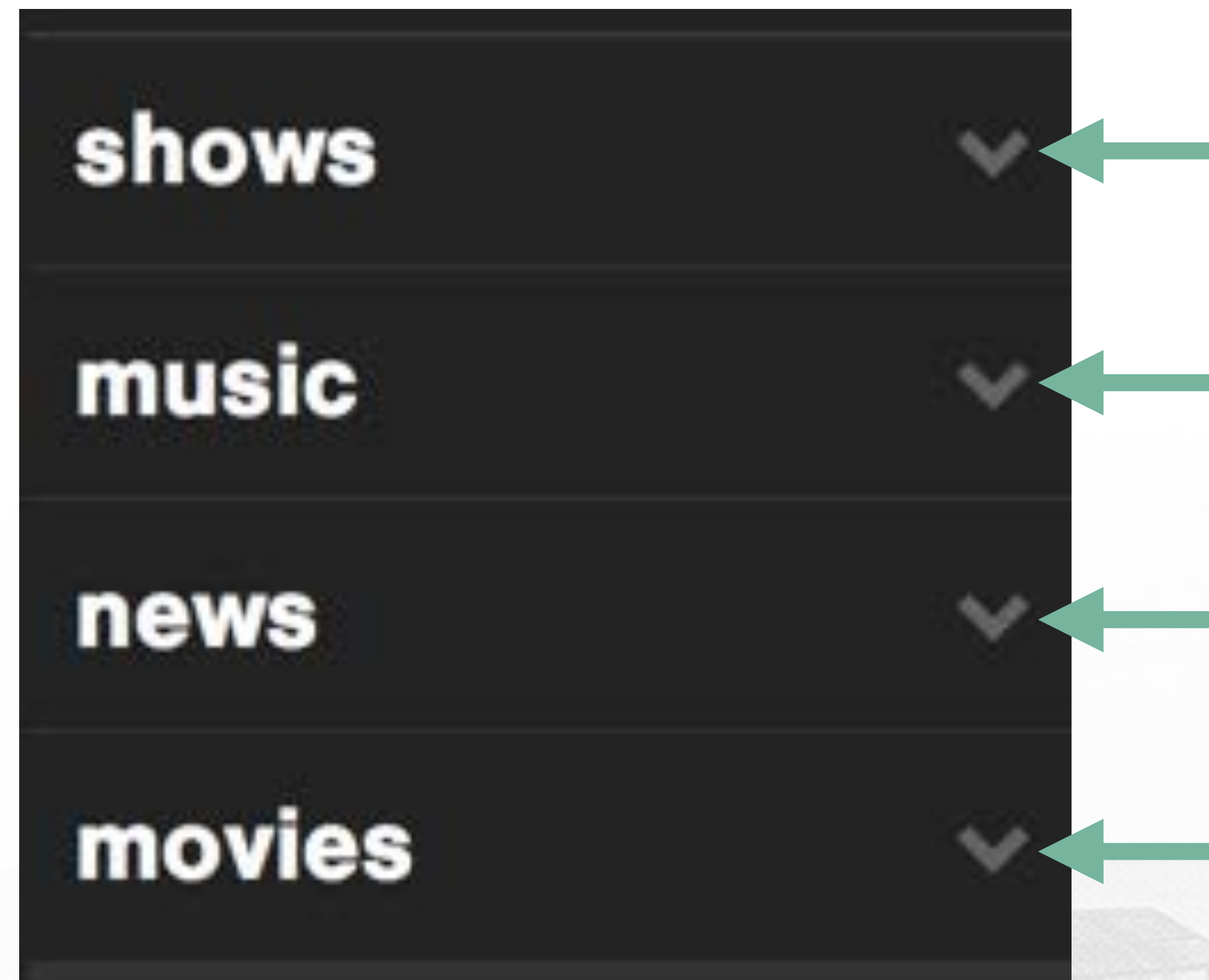




# User Interface images

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These assist with the interface of the webpage, but are not required to understand the content of the page.



These downward arrows direct how to work with the interface.



# Creating content images

Content images are created in HTML with the `<img>` tag.

```
<img>
```

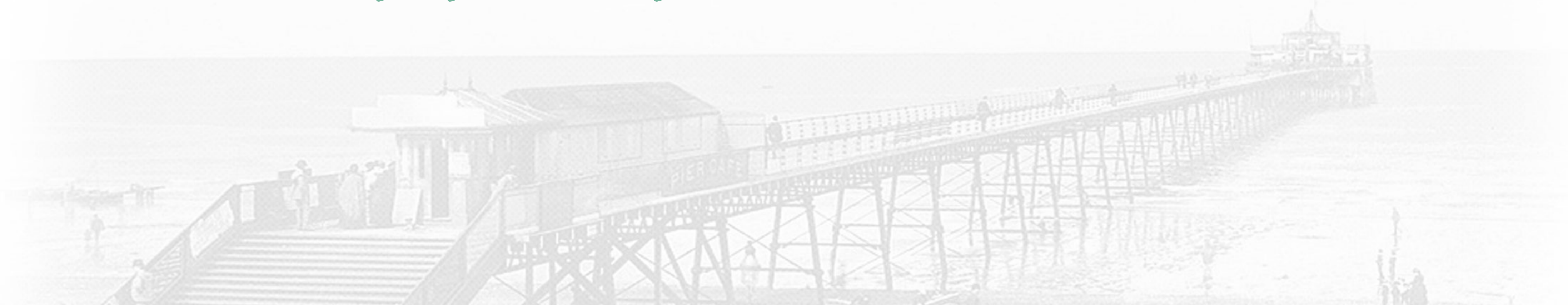


`<img>` is an **empty tag**.

```
<img></img>
```



remember, that means it just  
has an opening tag (no closing)





# Creating content images

Content images are created in HTML with the **<img>** tag.

magic-cake.html

HTML

```

```

relative path

Instead of open/close tags, add an **src attribute** to set which image is used.

Recipe World server files



main site folder



magic-cake.html



cake.png





# Putting images in their own folder

It makes sense to organize your images so they aren't in the main site folder.

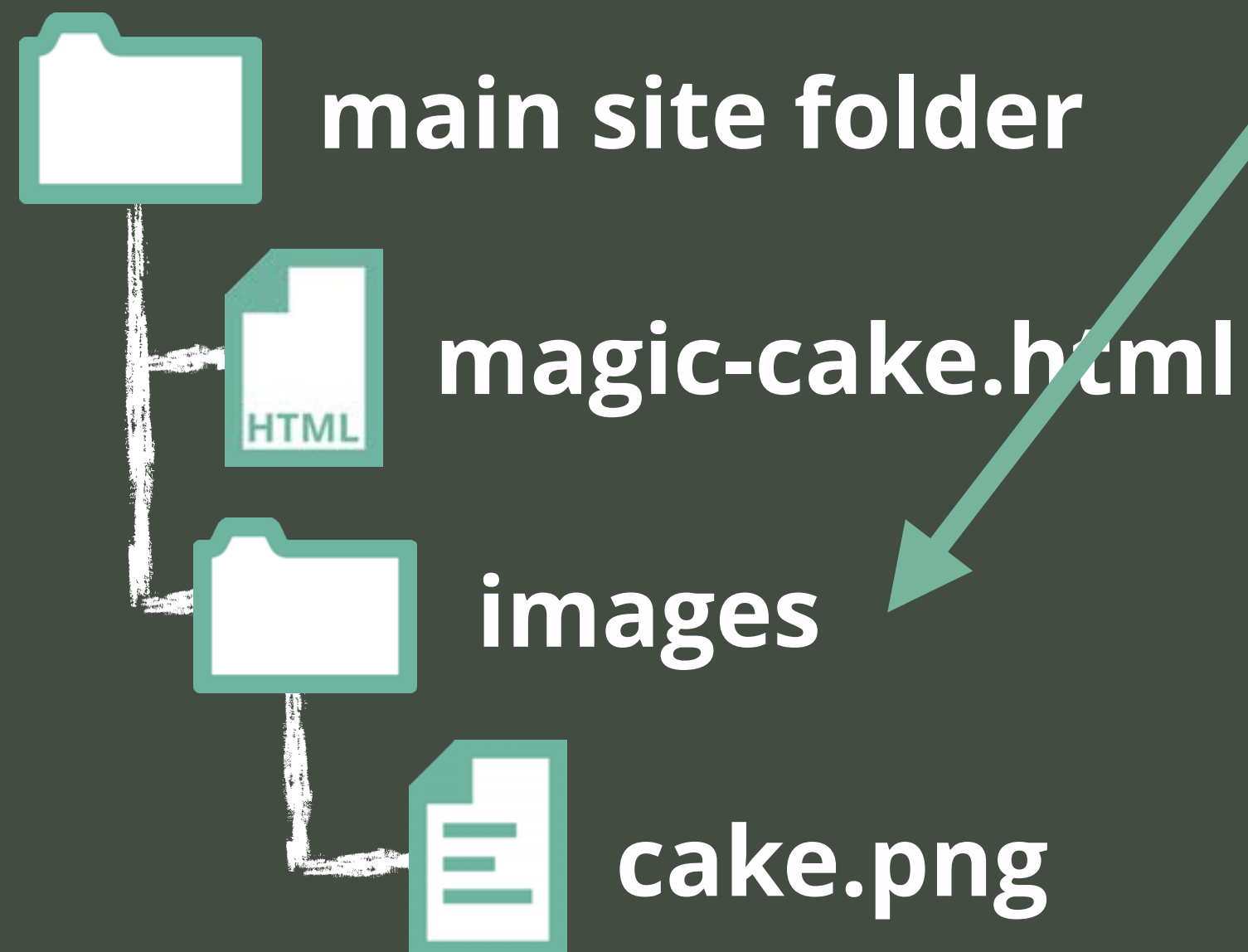
**magic-cake.html**

HTML

```

```

Recipe World server files



now all of your  
images can go in  
the images folder





# How images are loaded

Recipe World server files



Browser requests magic-cake.html

The magic-cake HTML is loaded in the browser

```

```

Browser finds this html

Browser requests images/cake.png

cake.png contents are returned and displayed



main site folder



magic-cake.html



images



cake.png





# Adding alt attributes to content images

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The alt attribute should contain text that describes the image or the purpose of the image.

**magic-cake.html**

HTML

```

```

## **Why??**    **Accessibility**

Not everyone who views your page will be able to view the images.

Screen readers rely on alt tags to describe images to visitors that might not be able to view images.





# Laying out content images

`<img>` is an inline-level tag, but they are often put inside block-level tags.

This is similar to `<a>` tags, which almost always appear as children of block-level tags.

**magic-cake.html**

HTML

```
<h3>Your Photos</h3>
<ul class="photos">
  <li></li>
  <li></li>
  <li></li>
</ul>
```

`<li>` is a block-level tag





# Laying out content images

## Directions

- 1. Mix eggs, sugar, and butter in a large bowl.
- 2. Spread into a non-stick dish
- 3. Bake at 350 degrees for 1 hour
- 4. Let sit at room temperature for 20 minutes
- 5. Eat and enjoy!

## Your Photos



## Problem

We want these photos to display side-by-side, like this

## Directions

- 1. Mix eggs, sugar, and butter in a large bowl.
- 2. Spread into a non-stick dish
- 3. Bake at 350 degrees for 1 hour
- 4. Let sit at room temperature for 20 minutes
- 5. Eat and enjoy!

## Your Photos





# Laying out content images

magic-cake.html

HTML

```
<h3>Your Photos</h3>
<ul class="photos">
  <li><img...
</ul>
```



CSS

```
.photos {
  list-style-type: none;
  padding: 0;
}
.photos li {
  display: inline;
  padding-left: 11px;
}
```

remove bullets  
and padding

make the images show  
horizontally with a  
little space in between

## Directions

1. Mix eggs, sugar, and butter in a large bowl.
2. Spread into a non-stick dish
3. Bake at 350 degrees for 1 hour
4. Let sit at room temperature for 20 minutes
5. Eat and enjoy!

## Your Photos





# Using an image as a site/logo mark

We can replace the `<h1>` with an `<img>` tag.

**magic-cake.html**

```
<div class="header">
  <h1>Recipe World</h1>
  <ul class="nav">...
```

HTML

Recipe World

Home Recipes Suggest

**Magic Cake**

Magic Cake is one of the tastiest cakes the world has ever known. I tried it and lived to tell about it, and these are their stories. We also need to stress that whatever happens to you as a result

```
<div class="header">
  
  <ul class="nav">...
```

HTML



# Centering an image inside a block-level tag

`<img>` is an inline-level tag so it can't be centered with `text-align`.

Instead, set just that image to **display: block** and center it with the **margin: auto** approach.

magic-cake.html

HTML

```
<div class="header">
  
  <ul class="nav">...
```

CSS

```
.header img {
  display: block;
  margin: 0 auto 0 auto;
}
```

Recipe World

Home Recipes Suggest

Magic Cake

Magic Cake is one of the tastiest cakes the world has ever known. Few have





# FRONT-END FOUNDATIONS



# Creating layout images

Layout images are created in CSS with the **background** property.





# Understanding the background property

There's several different properties that relate to background images.

**background-color** works just like the color property.

CSS

```
body {  
  background-color: #5f5f5f;  
}
```

## TIP

You should always set a background color in case the background image fails to load.

## Recipe World

Home Recipes Suggest

### Magic Cake

Magic Cake is one of the tastiest cakes the world has ever known. Few have tried it and lived to tell about it, and these are their stories. We also need to stress that whatever happens to you as a result of consuming Magic Cake is your responsibility. You've been warned, and you can view our [legal page](#) for more information.

#### Ingredients

- 2 eggs

# Understanding the background property

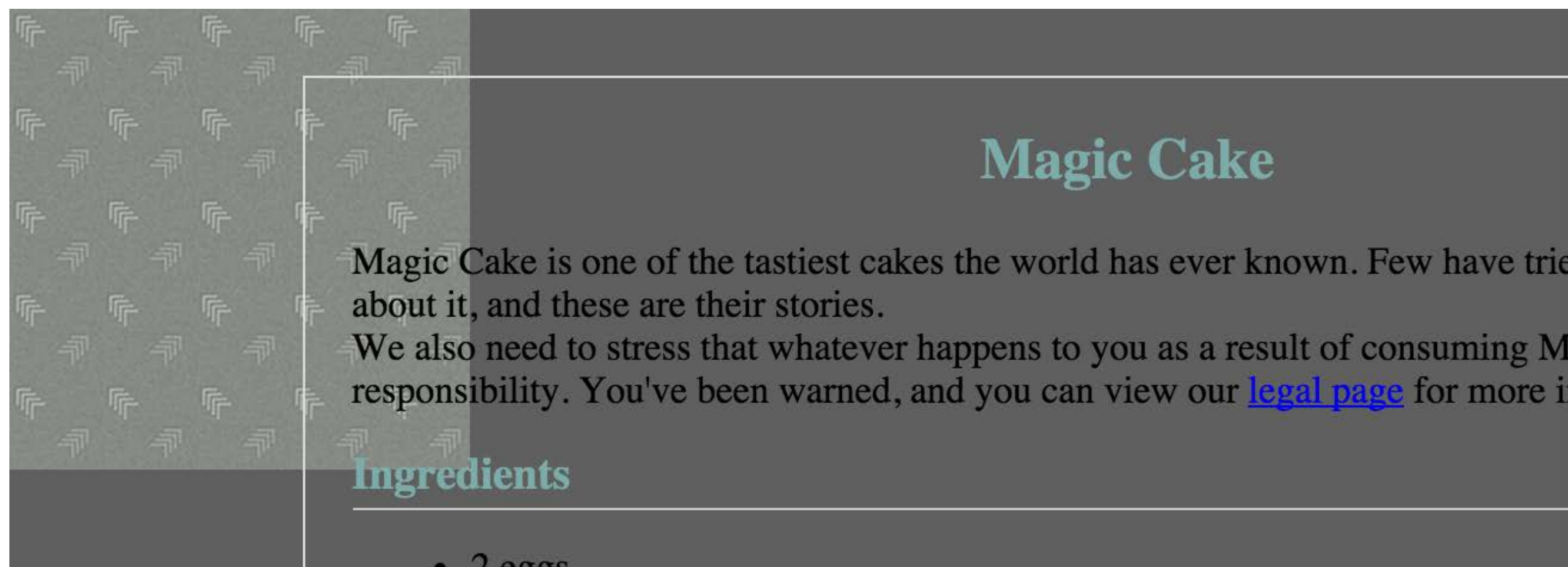
**background-image** can point to a relative or absolute path.

CSS

```
body {  
  background-color: #5f5f5f;  
  background-image: url(images/gobbler.png);  
}
```

the path has to be inside this url() code

notice that quotes  
don't need to be  
around the path



Check out [subtlepatterns.com](https://subtlepatterns.com)  
for this and other patterns!





# Understanding the background property

**background-position** can be used to position the image in a container.

CSS

```
body {  
  background-color: #5f5f5f;  
  background-image: url(images/gobbler.png);  
  background-position: top left;  
}
```

the first word can  
be **top**, **center**, or  
**bottom**

the second word  
can be **left**, **center**,  
or **right**



# Understanding the background property

**background-position** can be used to position the image in a container.

CSS

```
body {  
  background-color: #5f5f5f;  
  background-image: url(images/gobbler.png);  
  background-position: center right;  
}
```

this shows the image vertically  
centered and pushed to the right

## Magic Cake

Best cakes the world has ever known. Few have tried it and lived to tell stories.

Whatever happens to you as a result of consuming Magic Cake is your own warning, and you can view our [legal page](#) for more information.

1 cup butter in a large bowl

1 cup milk

Bake for 1 hour



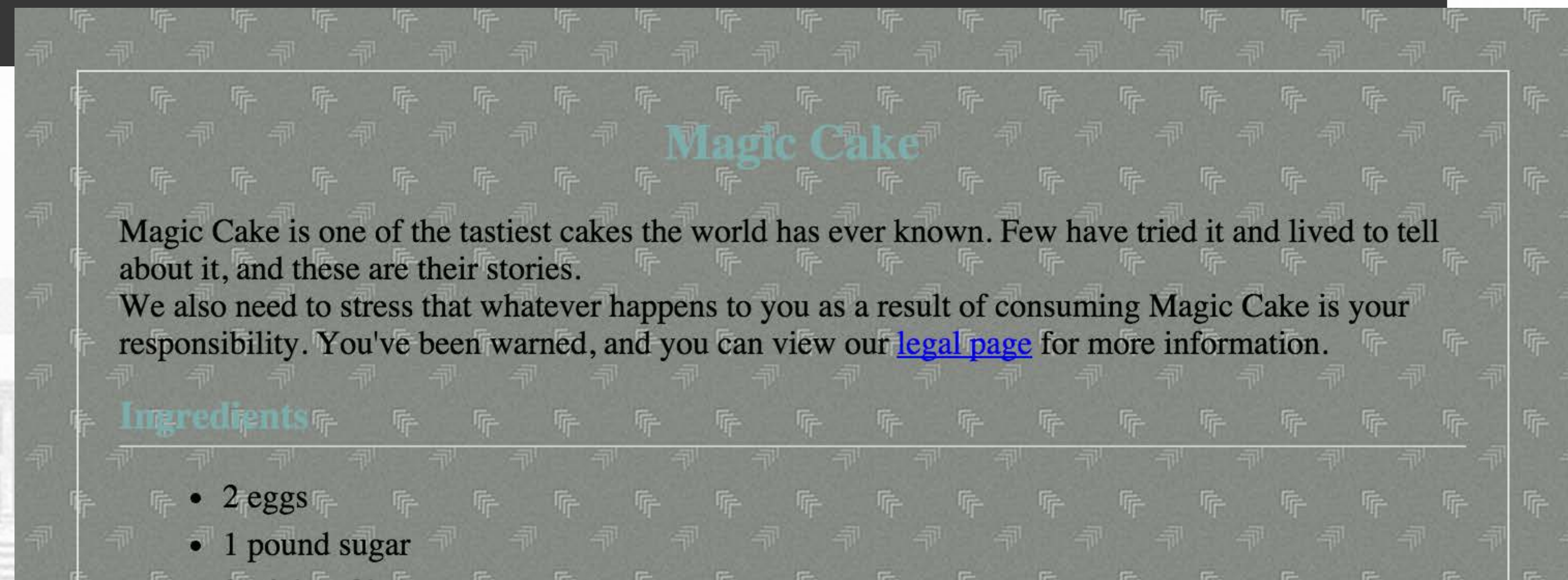


# Understanding the background property

**background-repeat** can be used to repeat tiled images.

CSS

```
body {  
  background-color: #5f5f5f;  
  background-image: url(images/gobbler.png);  
  background-position: top left;  
  background-repeat: repeat;  
}
```





# Understanding the background property

**background-repeat** can be used to repeat tiled images.

CSS

```
body {  
  background-color: #5f5f5f;  
  background-image: url(images/gobbler.png);  
  background-position: top left;  
  background-repeat: repeat-y;  
}
```

## Other values

repeat-x	tile the image horizontally
repeat-y	tile the image vertically
no-repeat	don't tile or repeat anything





# Understanding the background property

All four of those can be shortened into a single **background** property.

CSS

```
body {  
  background-color: #5f5f5f;  
  background-image: url(images/gobbler.png);  
  background-position: top left;  
  background-repeat: repeat;  
}
```

CSS

```
body {  
  background: #5f5f5f url(images/gobbler.png) top left repeat;  
}
```

color

image

position

repeat



# Creating different tiled backgrounds

We can set different backgrounds for different containers.

Here, we're using one repeated background for the body, another for the main-content, and another for the divs on the recipes page.

CSS

```
body {  
  background: #000000 url(images/stardust.png) top left repeat;  
}  
.main-content {  
  background: #ffffff url(images/crossword.png) top left repeat;  
}  
.recipes li {  
  background: #ffffff url(images/li-bg.png) top left repeat;  
}
```

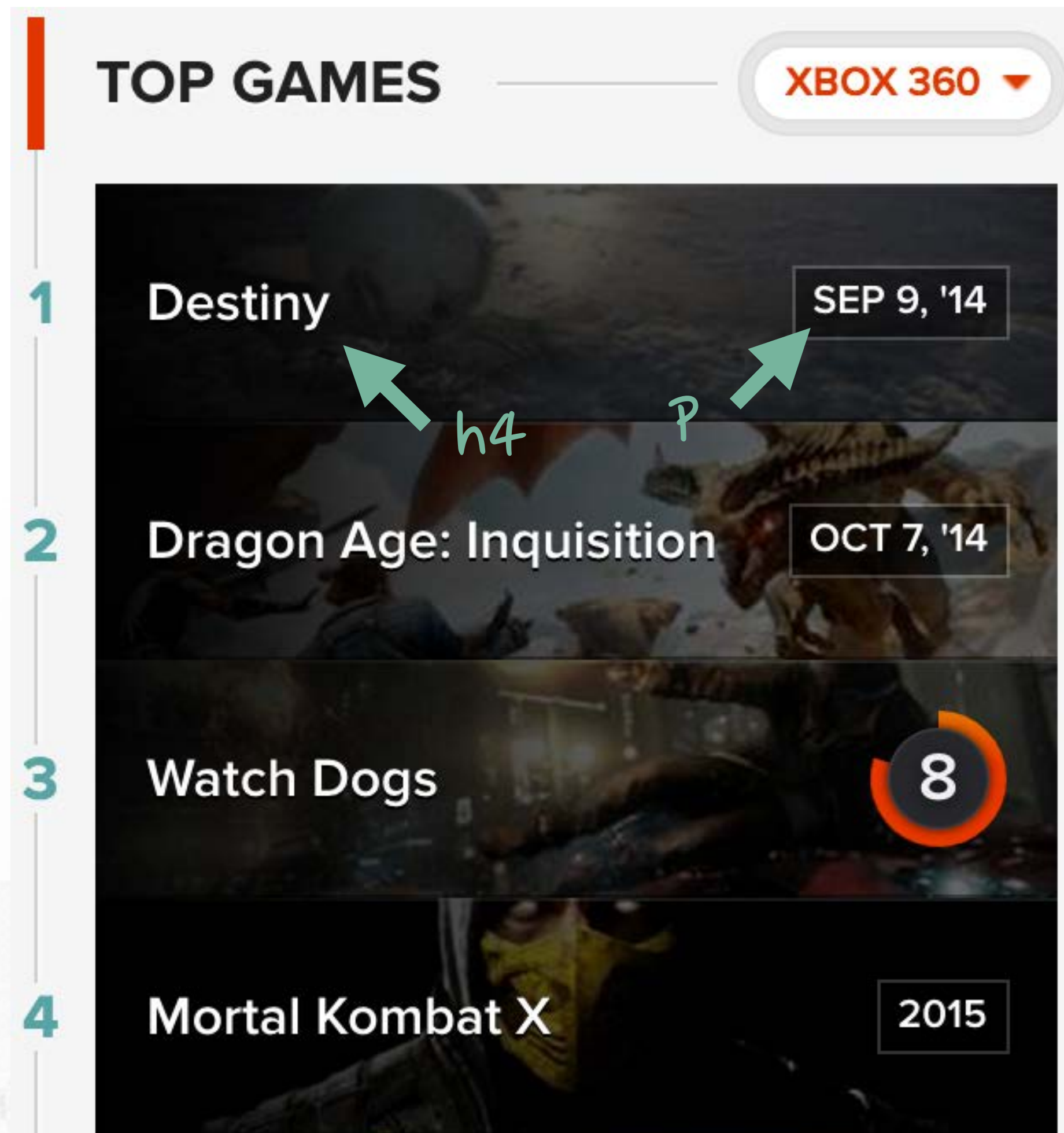


# Result of using three different layered backgrounds



# Writing on top of background images

Some sites like to write text over images.



This list on [gamespot.com](http://gamespot.com) has text for the game name and release date appearing over a background image from each game.





# Writing on top of background images

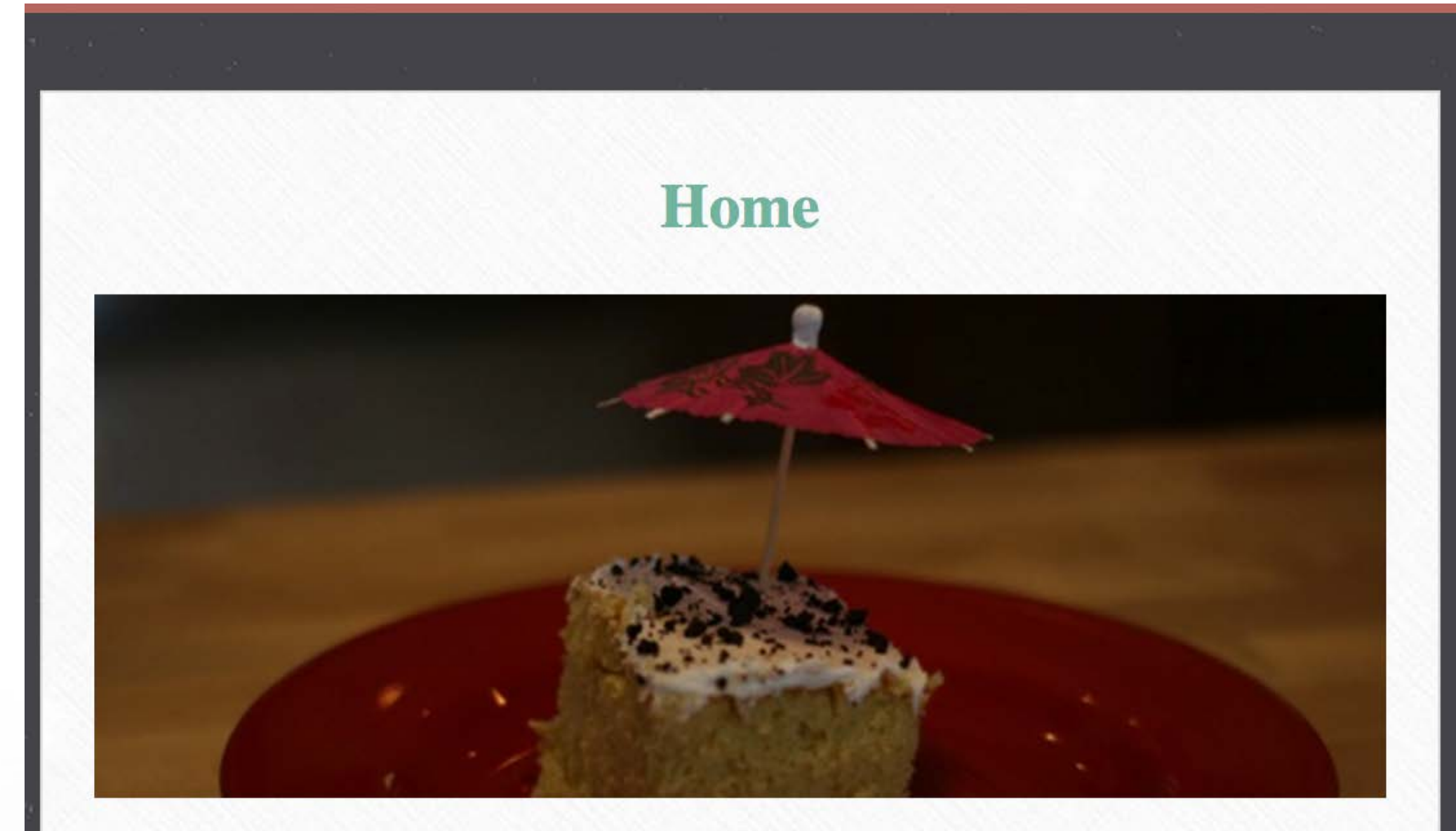
Some sites like to write text over images.

One way to do this is to create an empty **div** container that completely contains a background image, and put text tags inside of it.

home.html

HTML

```
<div class="main-content">
  <h2>Home</h2>
  <div class="featured-image">
  </div>
</div>
```



# First, add the background image to the container

home.html

HTML

```
<div class="main-content">
  <h2>Home</h2>
  <div class="featured-image">
  </div>
</div>
```

Home



CSS

```
.featured-image {
  width: 630px;
  height: 246px;
  background: #ffffff url(images/featured-cake.png)
    top left no-repeat;
}
```

these should be equal to the width/height of the image





# Then, add a tag that shows text as a child of that container

home.html

HTML

```
<div class="featured-image">
  <h3>Featured: Magic Cake</h3>
</div>
```

CSS

```
.featured-image h3 {
  margin: 0;
  background-color: #333333;
  color: #ffffff;
  padding: 5px 0 5px 15px;
  text-transform: uppercase;
}
```

Home

FEATURED: MAGIC CAKE

A photograph of a slice of cake on a red plate, with a red umbrella stuck in it. The cake is decorated with white frosting and black sprinkles. The background is a warm, golden-brown color.



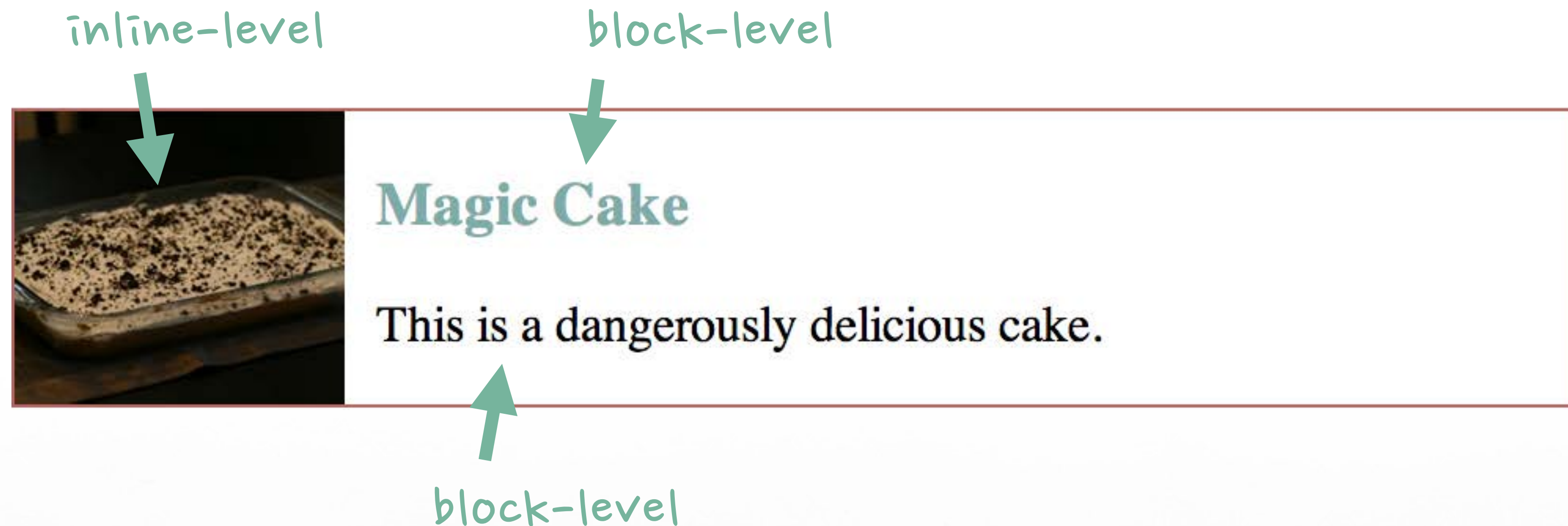
The background is an aerial photograph of a coastal town, likely Newport, Rhode Island, featuring a dense cluster of buildings and a harbor. A semi-transparent green overlay covers the entire image. Centered on the overlay is a white decorative frame containing the text "FRONT-END FOUNDATIONS". Above and below the frame are white geometric icons consisting of three interlocking diamonds. The text is in a bold, white, sans-serif font.

# FRONT-END FOUNDATIONS



# Displaying an image to the side of block-level tags

We know that tags are either block or inline.



This is an image to left of multiple block-level tags.  
How can we make this?

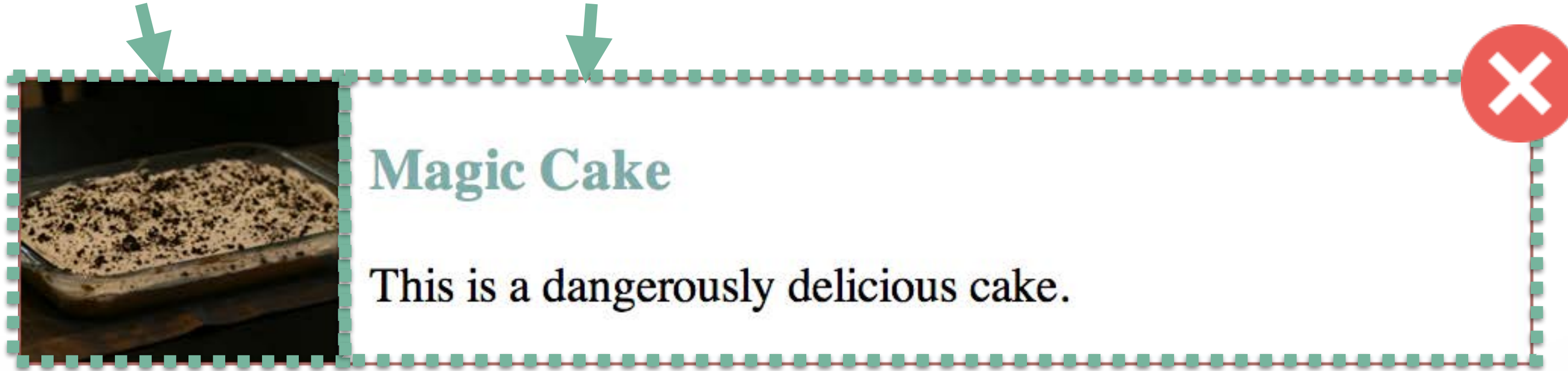


# Floating images

You might try setting two divs to inline.

left div set to inline

right div set to inline





# Floating images

HTML



magic-cake.html

```
<ul class="recipes">
  <li>
    <div>
      <img src=...>
    </div>
    <div>
      <h3><a href=...>Magic Cake</a></h3>
      <p>...</p>
    </div>
  </li>
</ul>
```

Setting these two  
divs side-by-side  
with **display:inline**  
seems like it would  
work.

CSS

```
.recipes div {
  display: inline;
}
```



# Floating images

Turns out, we can't just flip things to inline and then put block-level tags inside of them.

Time to try something else.

left div set  
to inline →



right div set  
to inline →

**Magic Cake**

This is a dangerously delicious cake.





# Floating images

Put the `img`, `h3`, and `p` all in one `li` and **float** the `img` left.

**magic-cake.html**

HTML



```
<ul class="recipes">
  <li>
    <img src=...>
    <h3><a href=...>Magic Cake</a></h3>
    <p>...</p>
  </li>
</ul>
```

CSS

```
.recipes img {
  float: left;
}
```

This makes the image take up some of the left space that the **h3** and **p** boxes would normally eat up as block-level tags.



# Floating images

Success! We've also added some right padding so the image doesn't touch right up against the text.

CSS

```
.recipes img {  
  float: left;  
  padding-right: 10px;  
}
```

Float is a tricky property that is covered in much greater detail in the CSS Cross Country course!



## Magic Cake

This is a dangerously delicious cake.

