

Code Your Own Website



Intermediate HTML + CSS

Class 1

Welcome!

Girl Develop It is here to provide affordable and accessible programs to learn software through mentorship and hands-on instruction.

Some "rules"

- We are here for you!
- Every question is important
- Help each other
- Have fun

First Things First

Tell us about yourself.

- Who are you?
- What do you hope to get out of the class?
- What's your spirit animal, and why?

First Things First

Thank you to our wonderful TAs!

Course website: <http://anything.codes>

Instructor contact info: lizs@girldevelopit.com

Today's Project

We'll be jumping into HTML/CSS right where the beginner class left off

The image shows a screenshot of a web application. At the top left is a dark circular icon with a white letter 'Z'. At the top right are three menu items: 'My Home', 'My Diet', and 'Stripes'. The main content area features a large, scenic landscape background of rolling green hills under a cloudy sky. In the center, there is a circular profile picture of a zebra's head. Below the profile picture, the text 'IMA Zebra' is displayed in a large, bold, white font. Underneath the name is a small rectangular box containing the word 'Africa'. At the bottom of the screen, there are three decorative elements consisting of semi-circular arcs with purple outlines and black and gold fill colors.

IMA Zebra

Africa

I'm a zebra.

CSS Reset

A block of CSS rules that reset all default styles

Why?

- Some HTML elements have default styles
- Sometimes these default styles interfere with how we'd like our pages to look
- Different browsers have different default styles
- A reset gets rid of these inconsistencies, and zeroes the styles

A reset lets us start from a clean slate

[Example »](#)

CSS Reset

How to use a CSS reset

1. Find one online ([Example »](#)) and copy the CSS reset
2. Paste the CSS reset at the top of your CSS file
3. Do this **before** starting any project from now on 

CSS Reset

Example

HTML Result Edit on

▼

CSS Reset Example (<h1>)

I'm a <p> element, which contains some **important text** and *emphasized text*

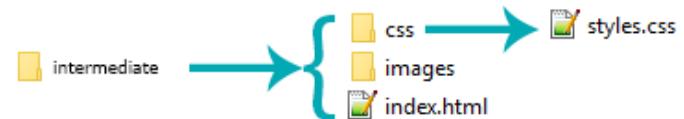
- First list item () within an unordered list ()
- Second list item () within an unordered list ()

▼

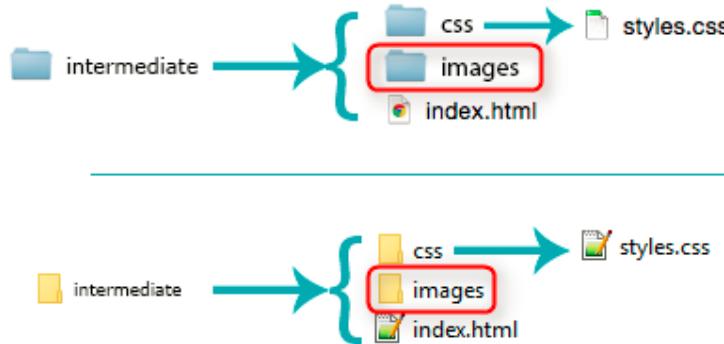
Get Started: Folder Structure

Go ahead and create your folders

Ignore the HTML and CSS files for now



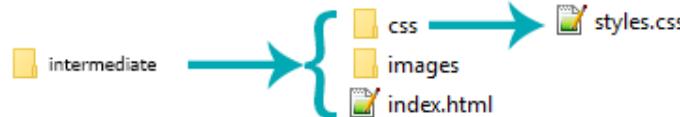
Get Started: Images



1. Go to <http://tinyurl.com/gdiimages> to download images.zip
2. Open images.zip
 - If you're using Windows, 'Extract' images.zip
3. Place the unzipped images in the 'intermediate/images' folder you just created

Get Started: Files

1. Open your text editor and create a new file.
2. Save it as index.html in the 'intermediate' folder you created earlier.
3. Add the fundamental structure (a doctype, head, title and body).
4. Create a new file in your text editor. Save it as styles.css in the 'intermediate/css' folder you created earlier.
 - Now let's add a CSS reset to styles.css!



HTML5

HTML5 is the latest version (version 5) of HTML
All modern browsers support HTML5

HTML5 Benefits

HTML5 elements are more semantic (e.g. compared to `<div>`)

Semantic means the tag name says what it does



HTML5 Benefits

Semantic Elements

Using semantic HTML5 elements makes it much easier to read, write, and understand your code

It's also great for Search Engine Optimization (a.k.a. SEO) and accessibility reasons (e.g. visually-impaired people using screen readers)

Let's Develop It!

Let's use block-level HTML5 elements to layout our header and banner (a.k.a. **hero**)

The image shows a website's hero section. At the top left is a black circular icon with a white letter 'Z'. At the top right are three menu items: 'My Home', 'My Diet', and 'Stripes'. The main visual is a photograph of a zebra's head in profile, facing right, set against a backdrop of a cloudy sky and green hills. Below the zebra is the text 'IMA Zebra' in a large, bold, white sans-serif font. Underneath this, a white rectangular button contains the word 'Africa' in a smaller, black sans-serif font. At the bottom of the hero section, the text 'I'm a zebra.' is displayed in a bold, black sans-serif font. Below this text are three small, semi-circular images: a silhouette of a zebra, a yellow sun-like shape, and a close-up of zebra stripes.

IMA Zebra

Africa

I'm a zebra.

Why is HTML5 Super?

Interactive Features



HTML5 has a lot of new interactive elements, including
`<canvas>`, `<svg>` (example 1 and example 2), and
`<video>`

Why is HTML5 Super?

HTML5 works on all devices

These new features replace the need for Flash videos, which Apple devices don't support



CSS Image Replacement

CSS image replacement is a technique of replacing a text element (usually a heading) with an image

For example, you may want to use a <h1> for accessibility and SEO benefits, but want to show a logo instead of text

```
selector {  
    background-image: url('images/yourimage.png');  
    width: 300px; /* the width of your image */  
    height: 300px; /* the height of your image */  
    white-space: nowrap;  
    text-indent: 100%;  
    overflow: hidden;  
}
```

CSS Image Replacement

HTML CSS Result

Edit on



Feathers and Fur of Cambridge's Online Store

CSS Image Replacement

Image too big?

Use **background-size: contain;** to contain the background within a smaller width and height

Let's Develop It!

Let's use CSS image replacement on our <h1> to show our logo instead of text

The screenshot shows a website layout. At the top left is a black circular icon with a white letter 'Z'. At the top right are three menu items: 'My Home', 'My Diet', and 'Stripes'. The main content area features a large, scenic photograph of a savanna landscape with rolling green hills under a cloudy sky. In the center of this image is a circular portrait of a zebra's head. Below the portrait, the text 'IMA Zebra' is displayed in a large, bold, white font. Underneath this text is a small white rectangular box containing the word 'Africa'. At the bottom of the page, the text 'I'm a zebra.' is centered. Below this text are three decorative semi-circular icons: a dark brown one on the left, a gold one in the middle, and a zebra-striped one on the right, each with a purple outline.

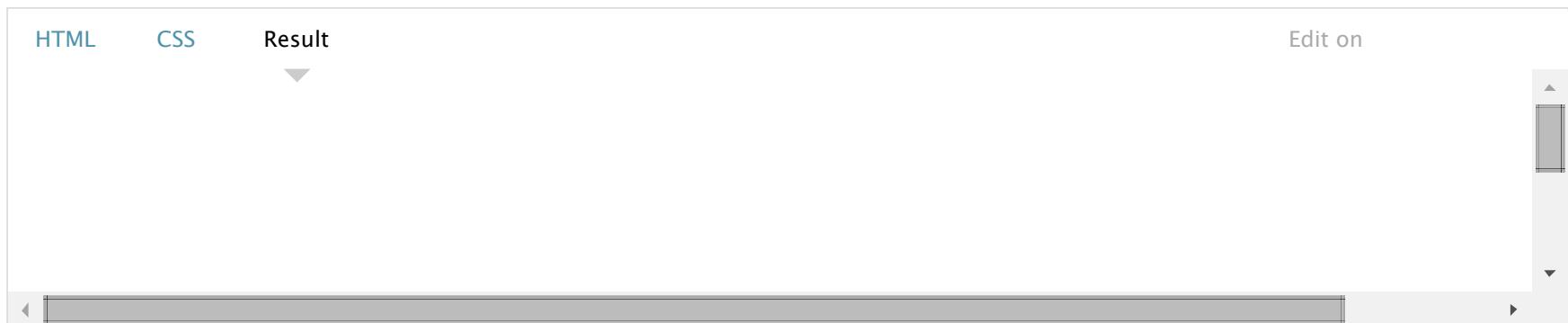
IMA Zebra

Africa

I'm a zebra.



position: relative;



[View result of above CodePen »](#)

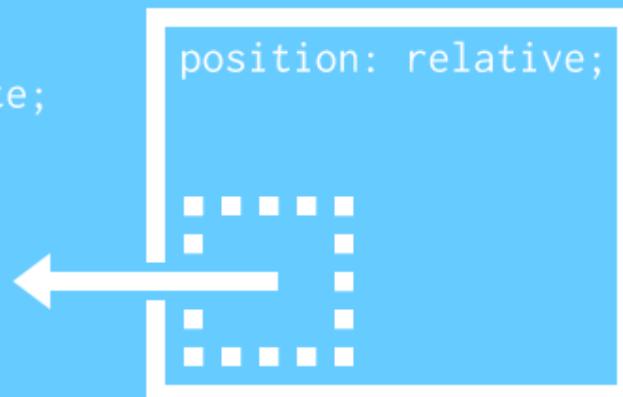
position: absolute;

The image shows a screenshot of the CodePen interface. At the top, there are three tabs: 'HTML', 'CSS', and 'Result'. The 'Result' tab is currently selected, indicated by a downward-pointing arrow icon to its right. To the right of the tabs, there is a horizontal scrollbar with arrows at both ends. On the far right, there is a vertical scrollbar with arrows at both ends. The main content area below the tabs is completely blank, suggesting no code has been written or the result is not yet visible.

[View result of above CodePen »](#)

Corraling an absolute element inside any non-static (e.g. relative) element

```
.foo {  
  position: absolute;  
  bottom: 10px;  
  left: 10px;  
  height: 100px;  
  width: 100px;  
}
```



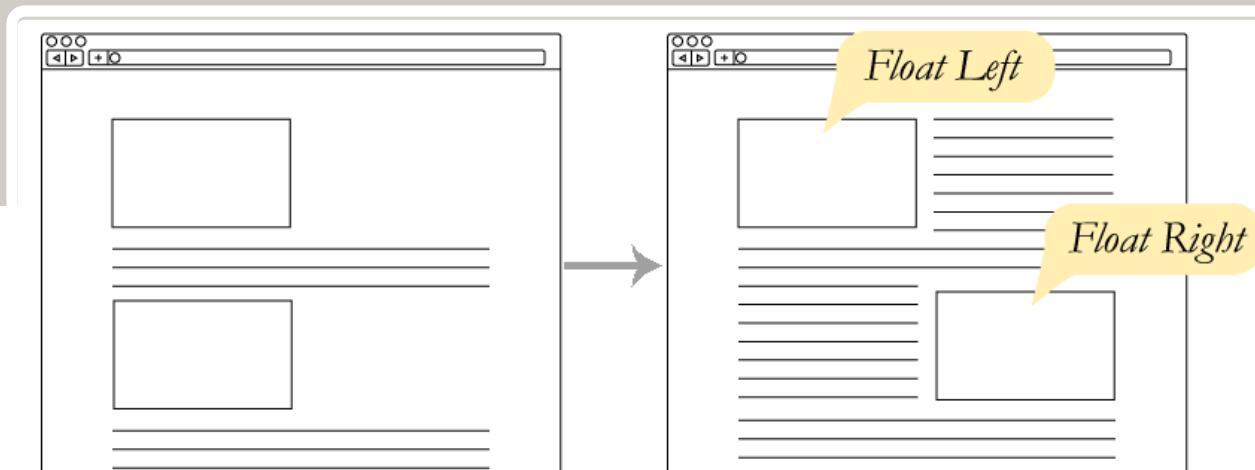
[HTML](#)[CSS](#)[Result](#)[Edit on](#)

Ignore me, I'm a p

A placeholder image

Property: float

When an element is floated, subsequent elements wrap around it

[HTML](#)[CSS](#)[Result](#)[Edit on](#)



Fixed Positioning

```
selector {  
  position: fixed;  
}
```

To make an element scroll with the browser window
(a.k.a. the **viewport**), use **fixed positioning**

Unlike static elements, a fixed element can **overlap**
other elements

Fixed Positioning

Fixed positioning is often applied to a page's header

Examples:

- Edward-Elmhurst Health
- Hornall Anderson
- Kitchen Sink Studios
- Bootstrap

Fixed Positioning

Setting the Location

Use the top, bottom, right, and left properties to set the location

These values position the element relative to the **viewport** so that it scrolls with the page

Fixed Positioning

A screenshot of a code editor interface. At the top, there are three tabs: "HTML", "CSS", and "Result". Below the tabs, the "Result" section is expanded, showing a blank white area. To the right of the result area is an "Edit on" button with a dropdown menu, currently showing "CodePen". A vertical toolbar is visible on the far right, featuring icons for file operations like "New", "Open", "Save", and "Import", along with other developer tools. At the bottom of the editor window is a horizontal scrollbar.

Let's Develop It!

Let's use fixed positioning to style our header, and style our navigation menu while we're at it

The screenshot shows a website with a header containing a logo 'Z' and three menu items: 'My Home', 'My Diet', and 'Stripes'. The main content area features a large image of a zebra's head in a circular frame against a backdrop of a savanna landscape with hills and clouds. Below the image, the text 'IMA Zebra' is displayed in a large, bold, white font. A small white box with the word 'Africa' is positioned near the bottom left of the image. At the bottom of the page, the text 'I'm a zebra.' is centered, followed by three decorative semi-circular icons in purple, gold, and black.

My Home My Diet Stripes

IMA Zebra

Africa

I'm a zebra.

The Banner (a.k.a. Hero) Section

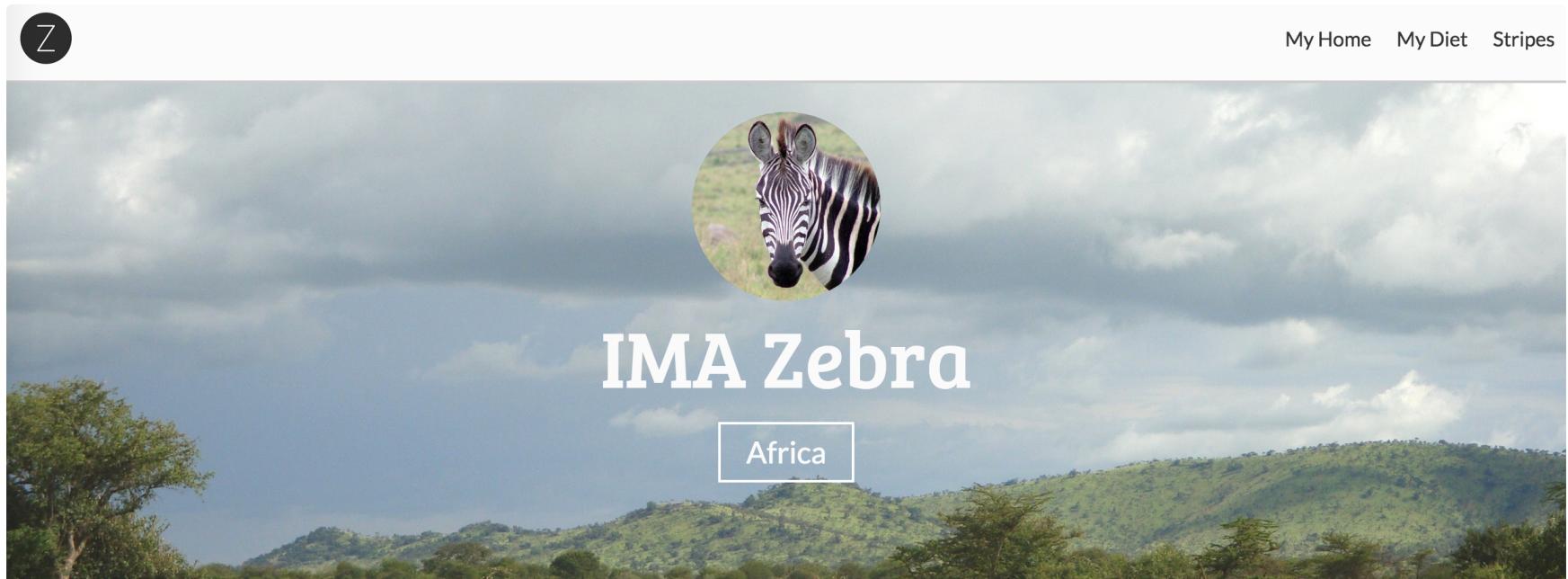
A large banner image, prominently placed on a page,
generally in front and center

Use several CSS properties — **background-image**,
background-size, **background-repeat** and **height** —
together to make a scalable responsive banner

Use **background-size: cover;** to scale the image to the
largest size such that both its width and its height can
fit inside the content area

Let's Develop It!

Let's start styling our banner section



The banner features a photograph of a zebra in a savanna setting with rolling green hills and a cloudy sky. Overlaid on the image are several elements: a circular profile picture of a zebra's head in the upper center; the text "IMA Zebra" in large white letters below it; a small white rectangular box containing the word "Africa" centered below the main text; and three semi-circular icons at the bottom, each containing a different image: a silhouette of a zebra, a yellow sun-like shape, and a close-up of zebra stripes.

Z

My Home My Diet Stripes

IMA Zebra

Africa

I'm a zebra.

Property: *border-radius*

`border-radius` rounds the corners of an element

No image editing required! The *border-radius* property is part of `CSS3` (the latest version of CSS)

border-radius with Four Values

Clockwise from the top left

```
selector {  
    border-radius: topLeft topRight bottomRight bottomLeft;  
}
```

```
img {  
    border-radius: 10px 30px 60px 150px;  
}
```



becomes



border-radius with Two Values

```
selector {  
    border-radius: topLeftAndBottomRight topRightAndBottomLeft;  
}
```

```
img {  
    border-radius: 10px 150px;  
}
```



border-radius with One Value

```
selector {  
    border-radius: all;  
}
```

```
img {  
    border-radius: 40px;  
}
```



Using *border-radius* to Make an Element into a Circle

```
selector {  
    border-radius: 50%;  
}
```

```
img {  
    border-radius: 50%;  
}
```



Let's Develop It!

Let's make our profile image into a circle

The screenshot shows a user profile page for a zebra named "IMA Zebra". The profile picture is a circular image of a zebra's head. Below the profile picture, the name "IMA Zebra" is displayed in large, bold, white letters. Underneath the name is a small rectangular box containing the word "Africa". At the bottom of the page, the text "I'm a zebra." is centered. Below this text are three semi-circular images: a black silhouette of a zebra, a yellow silhouette of a zebra, and a close-up image of zebra stripes.

Z

My Home My Diet Stripes

IMA Zebra

Africa

I'm a zebra.



Meet Google Web Fonts

Google has hundreds of free, open-source fonts that have been optimized for the web, and ready for us to use!

The service runs on Google's servers which are fast, reliable and tested. Google provides this service free of charge.

Check it out at <http://google.com/fonts> »

There are also other great font services, such as [Font Squirrel](#)

Custom Fonts

In our design, we've used Lato for the body and Bree
Serif for the headlines

You can use any font you'd like!

Normal 400

Lato

Lato, 10 Styles by [Łukasz Dziedzic](#)

Normal 400

Bree Serif

Bree Serif, 1 Style by [TypeTogether](#)

How To Use Google Fonts

1. Search the hundreds of font families, then add some to your collection
2. Compare and refine the collection – think about what styles you **need**
3. Grab the CSS that Google prepares for you and add it to the top of your CSS file (before the CSS reset)

```
@import url(http://fonts.googleapis.com/css?  
family=Lato:300,400,700,300italic,400italic|Bree+Serif);
```

4. Use **font-family** to reference the Google fonts (Google will give you code for this, as well)

Let's Develop It!

Pick some fonts for your site using Google Fonts.
Adjust the **font-size** and **line-height** to refine your
fonts

The screenshot shows a website layout. At the top left is a circular profile picture of a zebra. To its right are three navigation links: "My Home", "My Diet", and "Stripes". The main content area features a large, dramatic photograph of a zebra in a savanna under a cloudy sky. Overlaid on this image is the text "IMA Zebra" in a large, bold, white font. Below it is a smaller, rectangular box containing the word "Africa" in a white font. At the bottom of the page, the text "I'm a zebra." is displayed in a bold, black font. Three decorative semi-circular icons are positioned at the bottom: a dark grey one on the left, a gold one in the center, and a zebra-striped one on the right.

Next Week

Beyond Layouts – CSS Animations, SVGs, & More
Advanced CSS Goodness

If you haven't already, try to use each of the CSS properties discussed today. Next week we'll learn some more cool CSS tricks, and start talking about responsive development!

Questions?

