

CMPT281 — Intro to CSS Worksheet

Table of Contents

Step 1: Getting Started.....	2
Step 2: Open the HTML file in a text editor	2
Step 3: Examine the HTML file in a browser	3
Step 4: Open the CSS file in a text editor	3
Step 5: Set the font to a Helvetica font	3
Step 6: Add a koala icon instead of our bullet points	4
Step 7: Add another declaration to ul.....	4
Step 8: View in the browser	4
Step 9: Add space between each list item	5
Step 10: Getting the page content closer to the middle of the page	5
Step 11: Examine in browser	5
Step 12: Setting background colour.....	6
Step 13: Add backgrounds to our divs	6
Step 14: Inspect in browser	6
Step 15: Add padding to your div	6
Step 16: Inspect in browser	7
Step 17: Lightening up the background	7
Step 18: Demonstrating Box Model.....	8
Step 19: Examine the output in the browser.....	8
Step 20: Switch to the HTML document	8
Step 21: Examine this in browser.....	9
Step 22: Switch to the CSS document.....	9
Step 23: Examine this change in browser	9
Step 24: Create blank space between each of the boxes	10
Step 25: Examine in browser	10
Step 26: Adding more spacing	11
Step 27: Inspect in browser	11
Step 28: Experiment.....	11

Step 1. Getting Started

1. Download the ZIP
2. Extract the ZIP
3. Inspect the ZIP folder

Step 2: Open the HTML file in a text editor

In your editor of choice, open the HTML file. You will see that the HTML file currently has a very basic structure.

```
<!DOCTYPE html>
<html>
  <head>
    <title>Koala-ty Website</title>
    <link rel="stylesheet" href="styles.css">
  </head>
  <body>
    <div class="mainContent">
      <div>
        <h1>Why Koalas are Awesome</h1>
        <ul>
          <li>They are cute</li>
        </ul>
      </div>
      <div>
        <h1>Why Koalas are Terrible</h1>
        <ul>
          <li>They have one of the smallest brain to body ratios of any mammal.</li>
          <li>Their brains are smooth (less surface area for neurons).</li>
          <li>Eucalyptus leaves (the only thing they eat) have almost no nutritional value</li>
          <li>Koalas will not recognize leaves plucked from a branch as food.</li>
          <li>In a room full of plucked eucalyptus leaves they would starve to death.</li>
          <li>They sleep 80% of their lives</li>
          <li>They have one of the lowest milk yields of any mammal.</li>
        </ul>
      </div>
    </div>
  </body>
</html>
```

Step 3: Examine the HTML file in a browser

Why Koalas are Awesome

- They are cute

Why Koalas are Terrible

- They have one of the smallest brain to body ratios of any mammal.
- Their brains are smooth (less surface area for neurons).
- Eucalyptus leaves (the only thing they eat) have almost no nutritional value
- Koalas will not recognize leaves plucked from a branch as food.
- In a room full of plucked eucalyptus leaves they would starve to death.
- They sleep 80% of their lives
- They have one of the lowest milk yields of any mammal.

Step 4: Open the CSS file in a text editor

In your text editor of choice, open the CSS file. You will see that the CSS file is currently empty. Over the next few steps, your job is to add additional styles to this website. For now we are not focus on creating an aesthetic or usable design. We are simply interested in exploring CSS.

Step 5: Set the font to a Helvetica font

We want to use a Helvetica font for this webpage, and have that font across all elements in the main content. To achieve this, we can edit the value of the font-family property on the body element. This effect will cascade to all elements contained within the body structure of the HTML file (all of the displayed content).

Within your CSS file, type the code below:

```
body {  
    font-family: Helvetica;  
}
```

Once this is typed, save the CSS document and inspect the browser. Your font should have updated to reflect the value change to the font-family attribute. If this hasn't updated, make sure that your CSS file and your HTML file are in the same folder.

Step 6: Add a koala icon instead of our bullet points

```
ul {  
  list-style-image: url('koala-icon.png');  
}
```

By doing this, your browser should display all of your bullet points as koala icons: e.g. 🐨

Step 7: Add another declaration to ul

Assume we're that we're not happy with the current layout, and want some white space to the left of each of our bullet pointed lists. Within ul, add a declaration with the "margin-left" property, and give it a value of "1.5em". Consider experimenting with padding-left instead of margin-left.

```
ul {  
  list-style-image: url('koala-icon.png');  
  margin-left: 1.5em;  
}
```

Step 8: View in the browser

Why Koalas are Awesome

🐨 Koalas are cute

Why Koalas are Terrible

- 🐨 Koalas have one of the smallest brain to body ratios of any mammal.
- 🐨 Koalas brains are smooth (less surface area for neurons).
- 🐨 Eucalyptus leaves (the only thing Koalas eat) have almost no nutritional value
- 🐨 Koalas will not recognize leaves plucked from a branch as food.
- 🐨 In a room full of plucked eucalyptus leaves Koalas would starve to death.
- 🐨 Koalas have one of the lowest milk yields of any mammal.
- 🐨 Koalas sleep 80% of their lives

Step 9: Add space between each list item

At the moment there isn't enough space between each item in the lists. We want to add more space between each list item so that each item has more 'space to breath'. We can achieve this desired effect by adding padding to each item.

```
li {  
    padding: 0.1em;  
}
```

Step 10: Getting the page content closer to the middle of the page

Most websites don't display their content on the far left hand side of the page. To better accommodate for this, we are going to add the content towards the middle of the page. Since there are many different possible resolutions, we are going to make use of the 'auto' value as well as percentage values.

Within your body selector, update the code to:

```
body {  
    font-family: Helvetica;  
    margin: auto;  
    width: 40%;  
}
```

Step 11: Examine in browser

When examining this change in your browser, you should be able to see that this has shifted all of your content towards the middle of the screen. It's still not perfectly aligned, but it's a good start for a small amount of code. (We will learn more sophisticated ways to handle this problem in future classes.)

Why Koalas are Awesome

☒ Koalas are cute

Why Koalas are Terrible

- ☒ Koalas have one of the smallest brain to body ratios of any mammal
- ☒ Koalas brains are smooth (less surface area for neurons)
- ☒ Eucalyptus leaves (the only thing Koalas eat) have almost no nutritional value
- ☒ Koalas will not recognize leaves plucked from a branch as food
- ☒ In a room full of plucked eucalyptus leaves Koalas would starve to death
- ☒ Koalas have one of the lowest milk yields of any mammal
- ☒ Koalas sleep 80% of their lives

Step 12: Setting background colour

The white background is quite harsh on your eyes, so we want to add a more subtle background colour to our entire website. Let's start by adding a background colour that is a very light shade of gray. Within body, add `background-color: whitesmoke;`

```
body {  
    font-family: Helvetica;  
    margin: auto;  
    width: 40%;  
    background-color: whitesmoke;  
}
```

Step 13: Add backgrounds to our divs

Next we want to add background to each of our divs, so that we create a floating 'panel' effect.

```
div {  
    background-color: LightGray;  
}
```

Step 14: Inspect in browser

When we inspect this in the browser, it doesn't look very good. Our text is bunched up against the borders of the div. Next we're going to expand the area that our background encompasses by increasing the padding of the element.

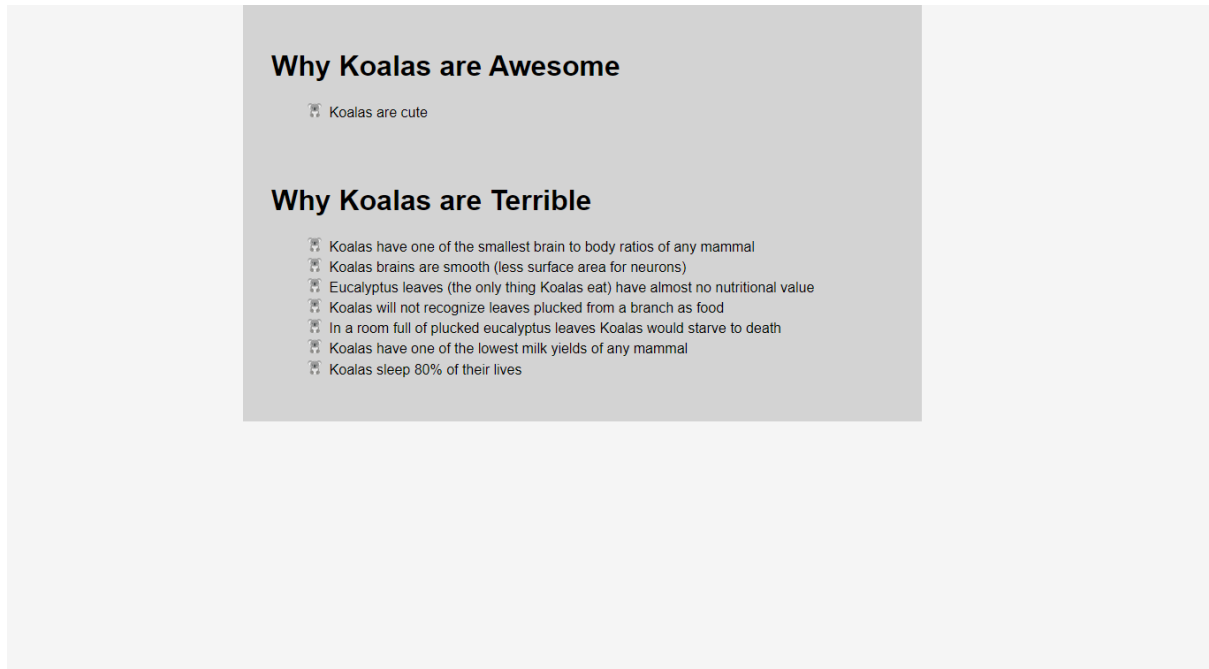
Step 15: Add padding to your div

Add padding to your div. We will use a value of 1em to give it

```
div {  
    background-color: LightGray;  
    padding: 1em;  
}
```

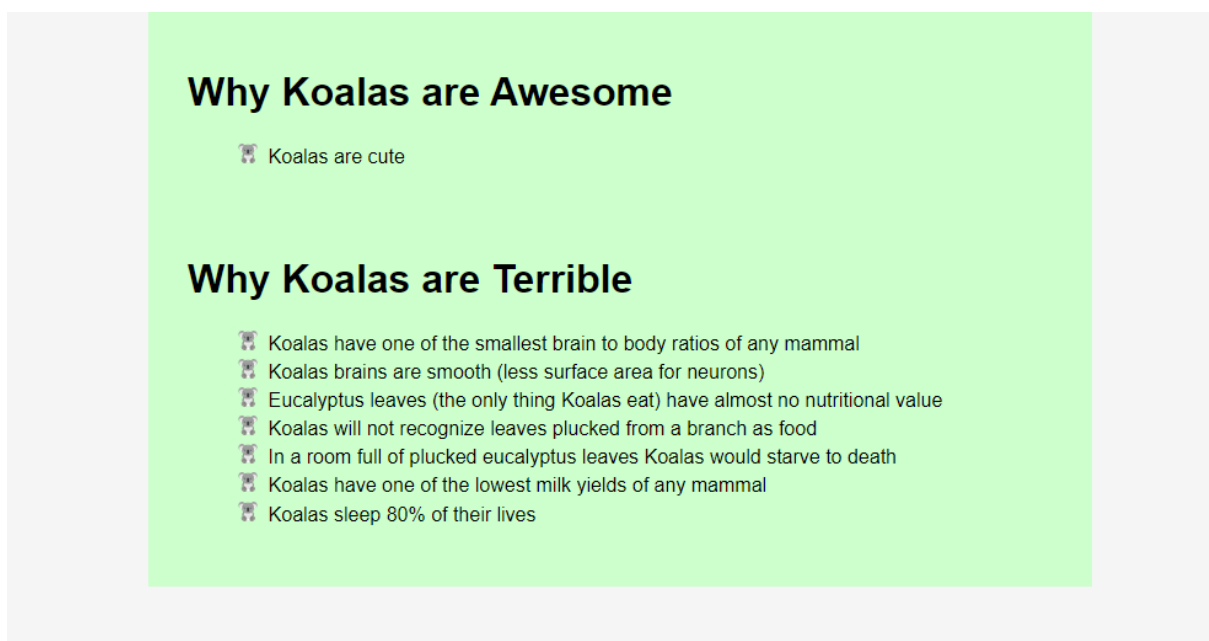
Step 16: Inspect in browser

Here we can see that this is looking a little better. Maybe not ideal, but it's getting us started with a clear delineation between the foreground of the page and the background of the page. It's also a little difficult to see the koala icon on the darker gray background. Let's lighten that up a little.



Step 17: Lightening up the background

It's going to look funky, but let's change the value of the div's background-color property from LightGray to the hexcode #ccffcc (a pale green). It's ugly, but we love it. Feel free to experiment with the hexcodes until you find something that you like.



Step 18: Demonstrating Box Model

To help demonstrate the box model of CSS, let's add a border to our divs so that we can more clearly see the 'boxes' that exist in our content. Within the div selector, add a declaration of:

border-style: groove;

```
div {  
  background-color: #CCFFCC;  
  padding: 1em;  
  border-style: groove;  
}
```

Step 19: Examine the output in the browser

Here you'll notice that all three of the divs in the HTML are being styled with a border, including the div that has a defined class. This may be the desired effect, but for our purposes it's not what we want.



Step 20: Switch to the HTML document

In the HTML document, add a class name to each of the divs that immediately precede the heading tags. Set the class for each of these divs to be "koalaFacts". NB: Class names are case sensitive.

```
<div class="mainContent">  
  <div class="koalaFacts">  
    <h1>Why Koalas are Awesome</h1>  
    <ul>  
      <li>Koalas are cute</li>  
    </ul>  
  </div>  
  
  <div class = "koalaFacts">  
    <h1>Why Koalas are Terrible</h1>
```


Step 21: Examine this in browser

You should notice that this change doesn't actually do anything. No matter what you name your class, it is still a div, and will still inherit the attributes of all other divs. To make changes to how this class is handled, we need to specify that in the CSS selector.

Step 22: Switch to the CSS document

Within your styles.css file, edit the 'div' selector to be a '.koalaFacts' selector.

```
.koalaFacts {  
    background-color: #CCFFCC;  
    padding: 1em;  
    border-style: groove;  
}
```



Step 23: Examine this change in browser

Now we are only changing the divs that have the class koalaFacts. This has removed the overall size of the border, and created two distinct 'boxes' of content.

Why Koalas are Awesome

 Koalas are cute

Why Koalas are Terrible

-  Koalas have one of the smallest brain to body ratios of any mammal
-  Koalas brains are smooth (less surface area for neurons)
-  Eucalyptus leaves (the only thing Koalas eat) have almost no nutritional value
-  Koalas will not recognize leaves plucked from a branch as food
-  In a room full of plucked eucalyptus leaves Koalas would starve to death
-  Koalas have one of the lowest milk yields of any mammal
-  Koalas sleep 80% of their lives

Step 24: Create blank space between each of the boxes

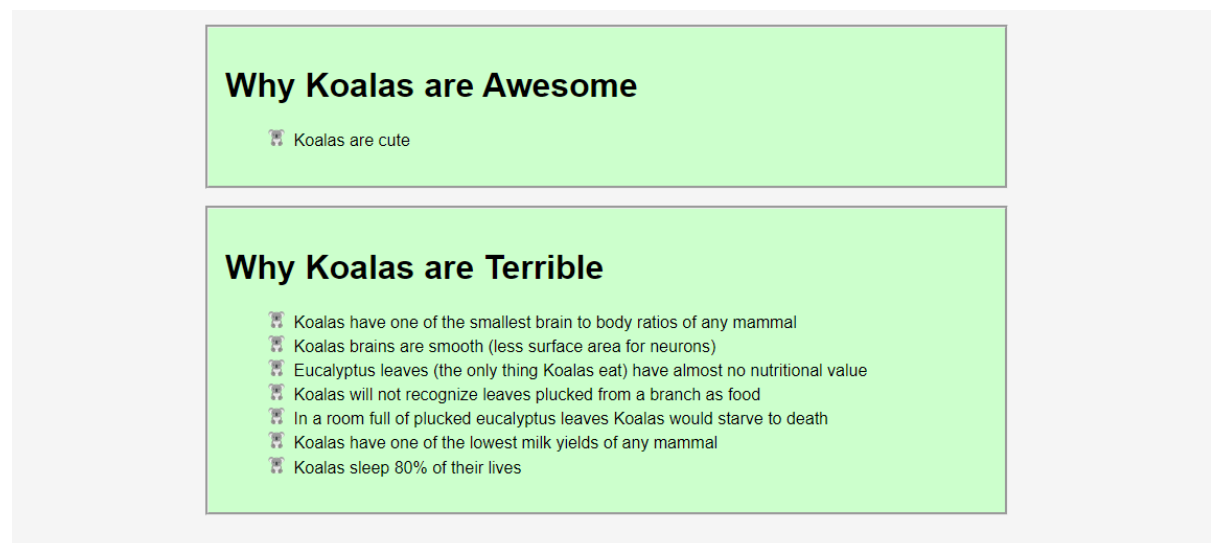
Right now the boxes are too close together. We want to add margins between each div, so that there is more space between each panel of content. Here, we could decide to do that at either the class level or at the div level. If we do it at the div level, it will also effect the third div that doesn't currently have a visual representation. Let's instead just do it on the class level.

Add a property of 'margin-top' with a value of '1em' to the '.koalaFacts' selector.

```
.koalaFacts {  
  background-color: #CCFFCC;  
  padding: 1em;  
  border-style: groove;  
  margin-top: 1em;  
}
```

Step 25: Examine in browser

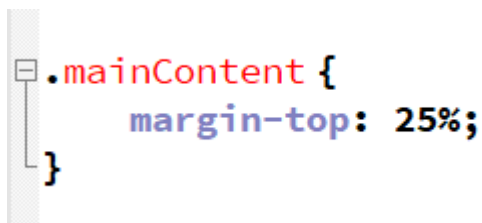
This change is making the content areas feel a lot more distinct. However, there's still a lot of white space under koala facts, so the page feels imbalanced. Let's add another margin-top to our other div.



Step 26: Adding more spacing

We want to add more blank space at the top of the page. There are several different ways to achieve this effect. Some of the ways that could work is adding more margins to each div. However, doing this at the div tag level will affect all items, so we would also get more space between our koalaFacts. This isn't what we want, so instead we are going to edit the other div class directly.


Use the class name 'mainContent' as a selector. When we add a class as a selector, note that it also includes a 'full stop' in front of its name to indicate that it is a class. Within the mainContent selector, give it a declaration of 'margin-top: 25%'.

```
A screenshot of a code editor showing CSS code. On the left, there is a small icon of a document with a list. The code is: .mainContent { on the first line, margin-top: 25%; on the second line, and } on the third line. The text is color-coded: the dot is red, 'mainContent' is black, the opening curly brace is black, 'margin-top' is blue, '25%' is black, and the closing curly brace is black.
```








Step 27: Inspect in browser

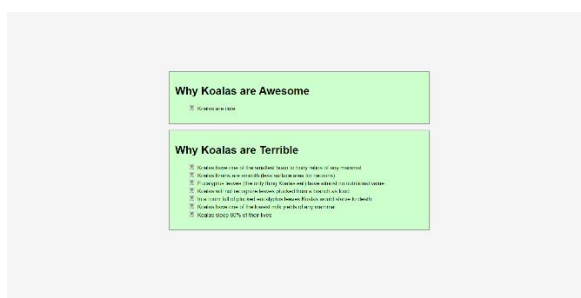
We now have two very clearly separated pieces of content. The content appears in roughly the middle of the page. It is obviously not very good to look at, but this is still reminiscent of the basics of a website. While we have only made a minor modification to the HTML markup (by including an additional class name) our website has gone from plain text to something a little more interesting.

Why Koalas are Awesome

 Koalas are cute

Why Koalas are Terrible

-  Koalas have one of the smallest brain to body ratios of any mammal.
-  Koalas brains are smooth (less surface area for neurons).
-  Eucalyptus leaves (the only thing Koalas eat) have almost no nutritional value
-  Koalas will not recognize leaves plucked from a branch as food.
-  In a room full of plucked eucalyptus leaves Koalas would starve to death.
-  Koalas have one of the lowest milk yields of any mammal.
-  Koalas sleep 80% of their lives



Step 28: Experiment

As time permits, consider adding additional properties within the CSS file or tweak the values to see how different values influence the visual output. Consider changing font **color**, **border-color**, **border-size**, **margin**, **padding**, etc.