

# HTML & CSS

---

a really soft introduction

# PAULO SOUSA

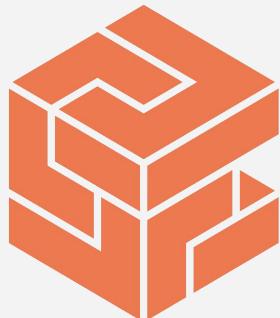


prsousa



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cesium

**WHAT ARE WE  
GOING TO DO?**

# LEARN & DEVELOP

## HTML + CSS

# NEED

A PC  
A BROWSER  
AN EDITOR

READY...  
SET...  
GO

The logo consists of the word "HTML" in a bold, white, sans-serif font. The letters are outlined in black. A small white square is positioned to the left of the "H".

**HTML**

**HYPertext Markup Language**

<html>

I SEE TAGS, TAGS EVERYWHERE

</html>

## OPEN-CLOSE

```
<tag> ... </tag>
```

```
<tag attribute="value">  
  ...  
</tag>
```

FOR  
M  
A  
T  
H  
A  
G  
R  
A  
S

# TAG FORMAT

SELF-CLOSED

```
<tag />
```

```
<tag attribute="value" />
```

```
<!DOCTYPE html>
```

```
<html>
```

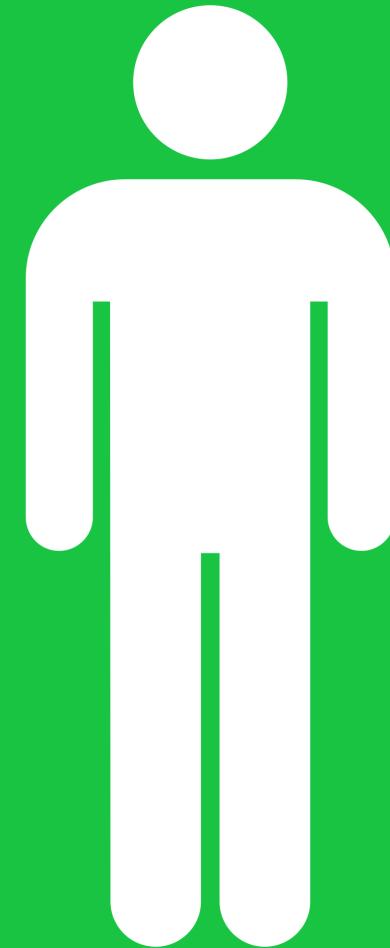
```
  <head>
```

```
  </head>
```

```
  <body>
```

```
  </body>
```

```
</html>
```



```
<!DOCTYPE html>
```

hello.html

```
<html>
```

```
  <head>
```

```
  </head>
```

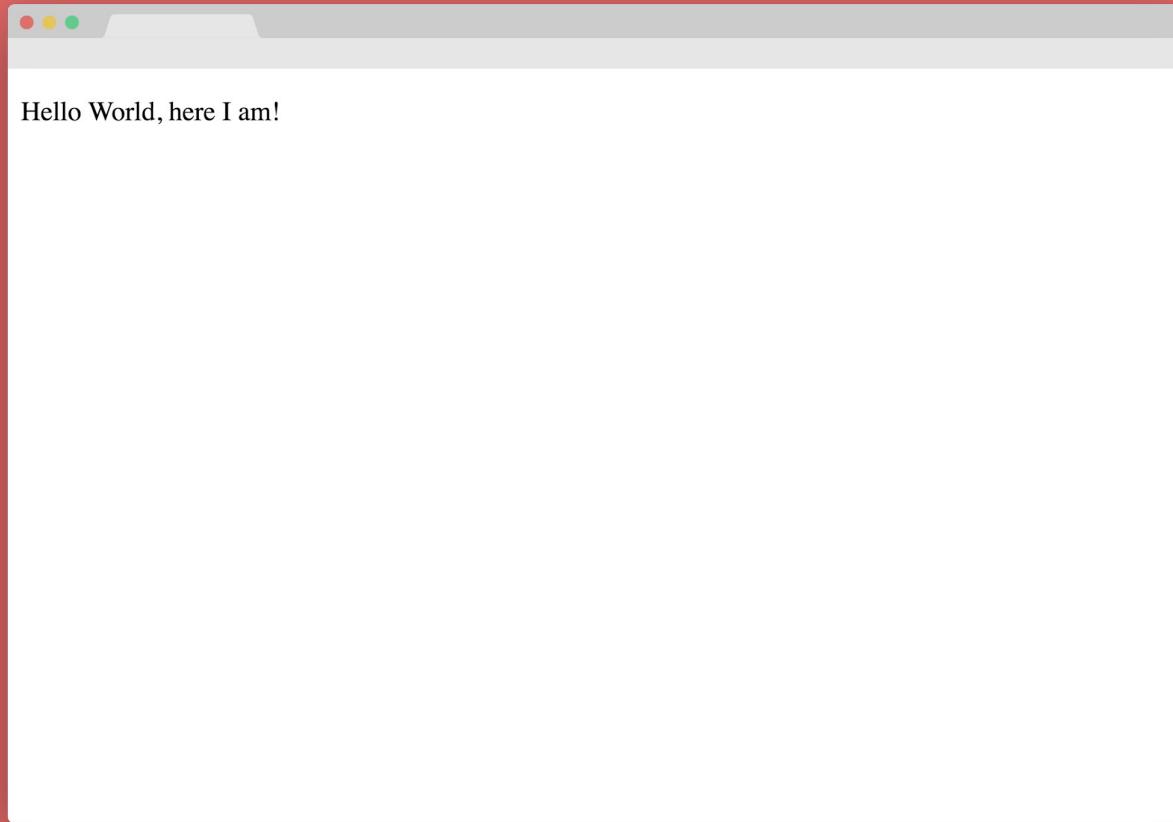
```
  <body>
```

```
    <p>Hello World, here I am!</p>
```

```
  </body>
```

```
</html>
```

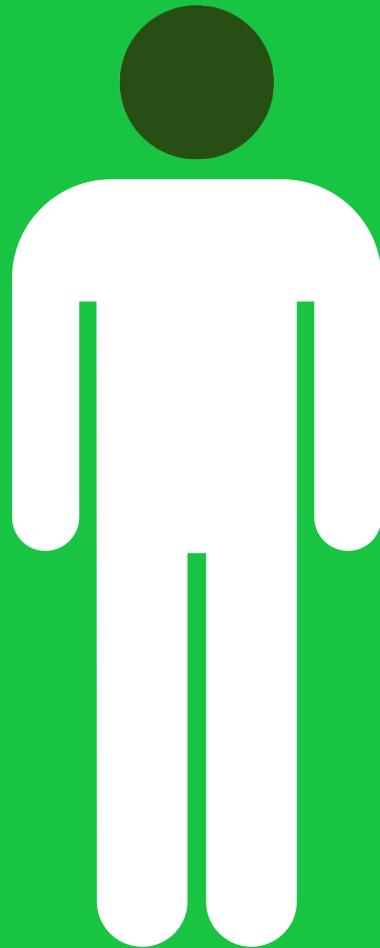
# hello.html



SAY  
GOODBYE  
HELLO  
WORLD

**IT'S TIME TO  
SHOW TAGS**

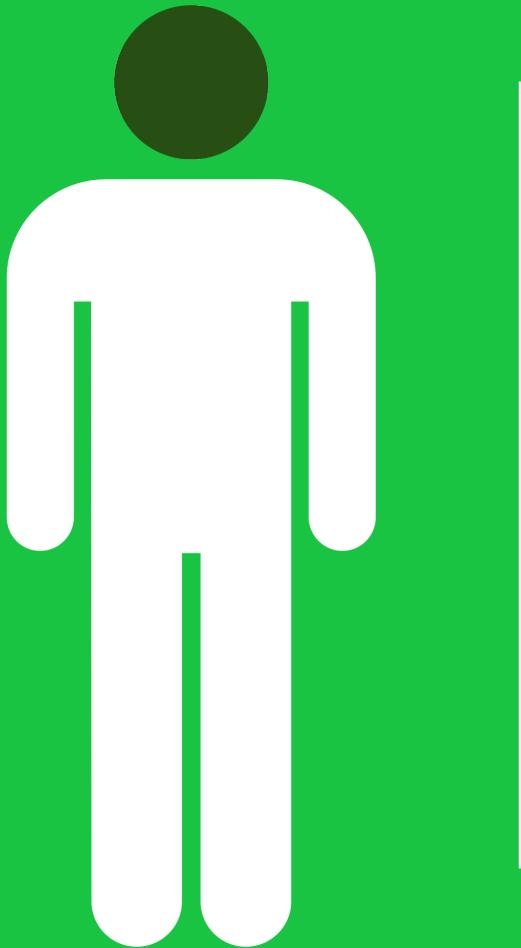
**<HEAD>**  
**TAGS**





# SET PAGE'S TITLE

```
<title> ... </title>
```



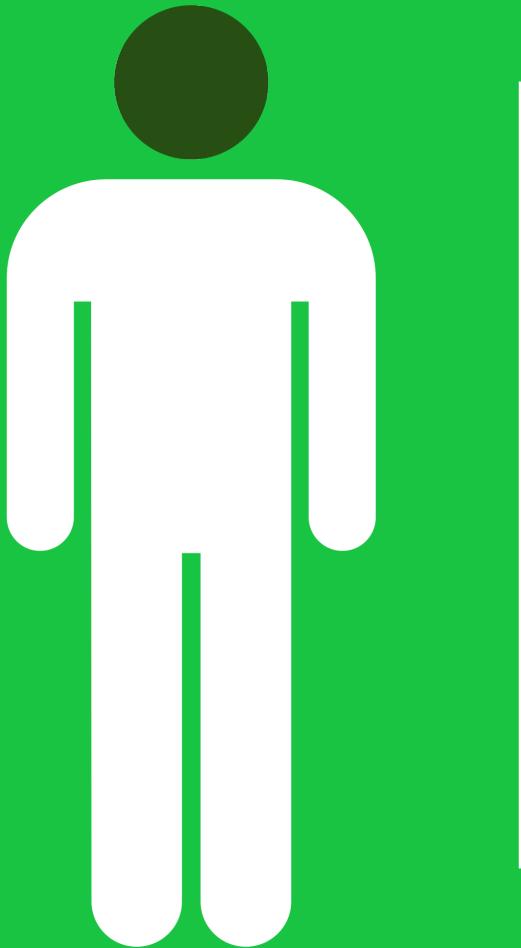
# META- INFORMATION OF PAGE

```
<meta ... />
```



# LINK EXTERNAL REFERENCE

```
<link ... />
```



# DEFINE STYLE TO HTML

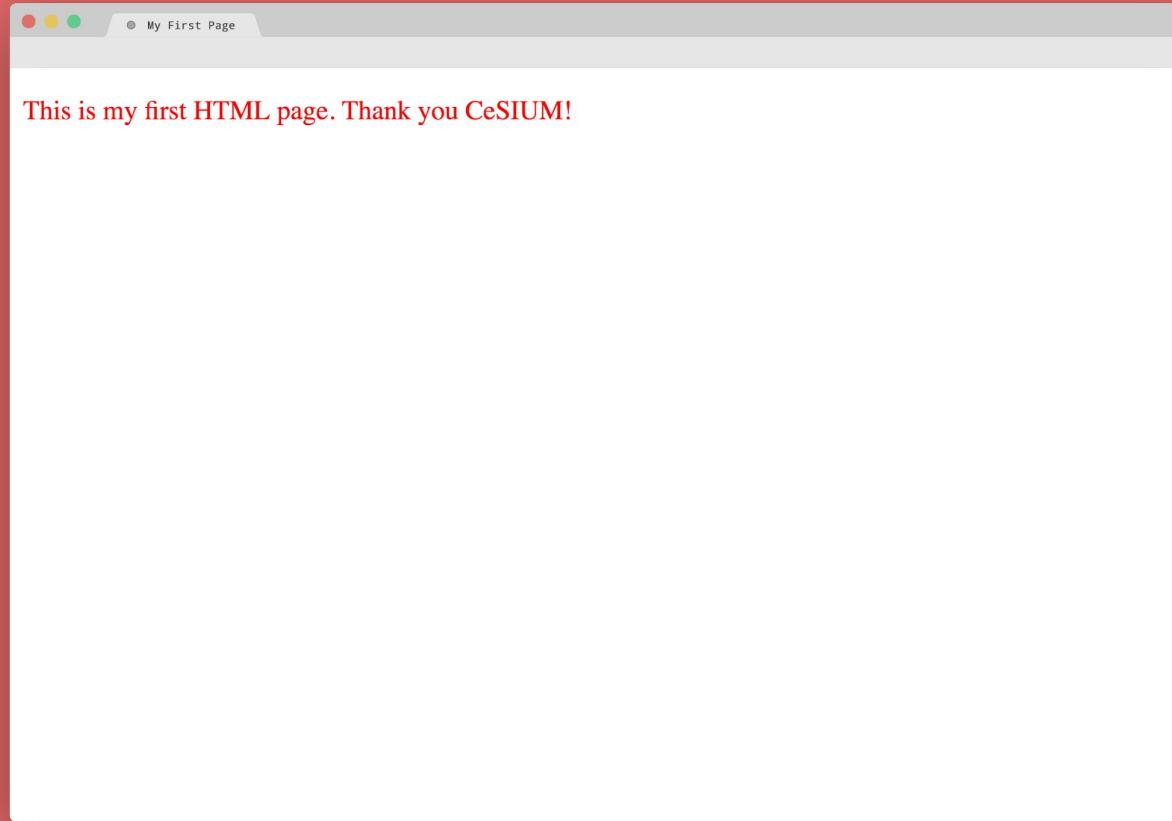
```
<style> ... </style>
```

```
<!DOCTYPE html>

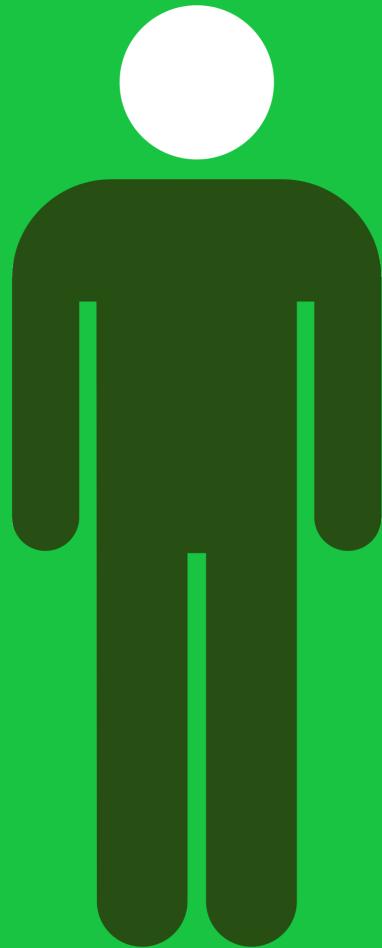
<html>
  <head>
    <title>My First Page</title>
    <meta name="author" content="Tu" />
    <link rel="shortcut icon" content="favicon.ico" />
    <style>
      p { color: red; }
    </style>
  </head>

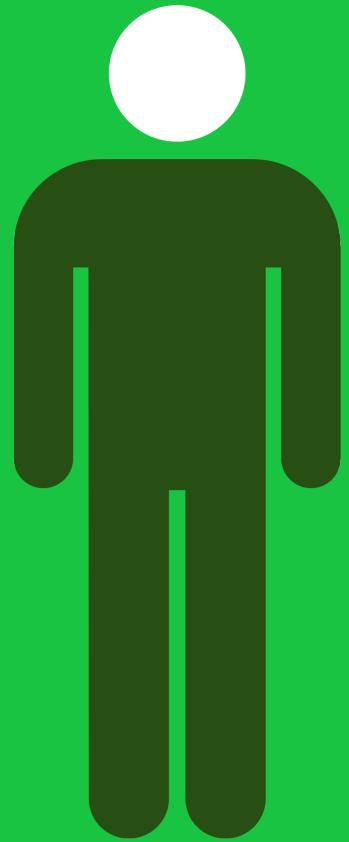
  <body>
    <p>This is my first HTML page. Thank you CeSIUM!</p>
  </body>
</html>
```

# first.html



**<BODY>**  
**ESSENTIAL**  
**TAGS**





ESSENTIAL

# HEADINGS

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

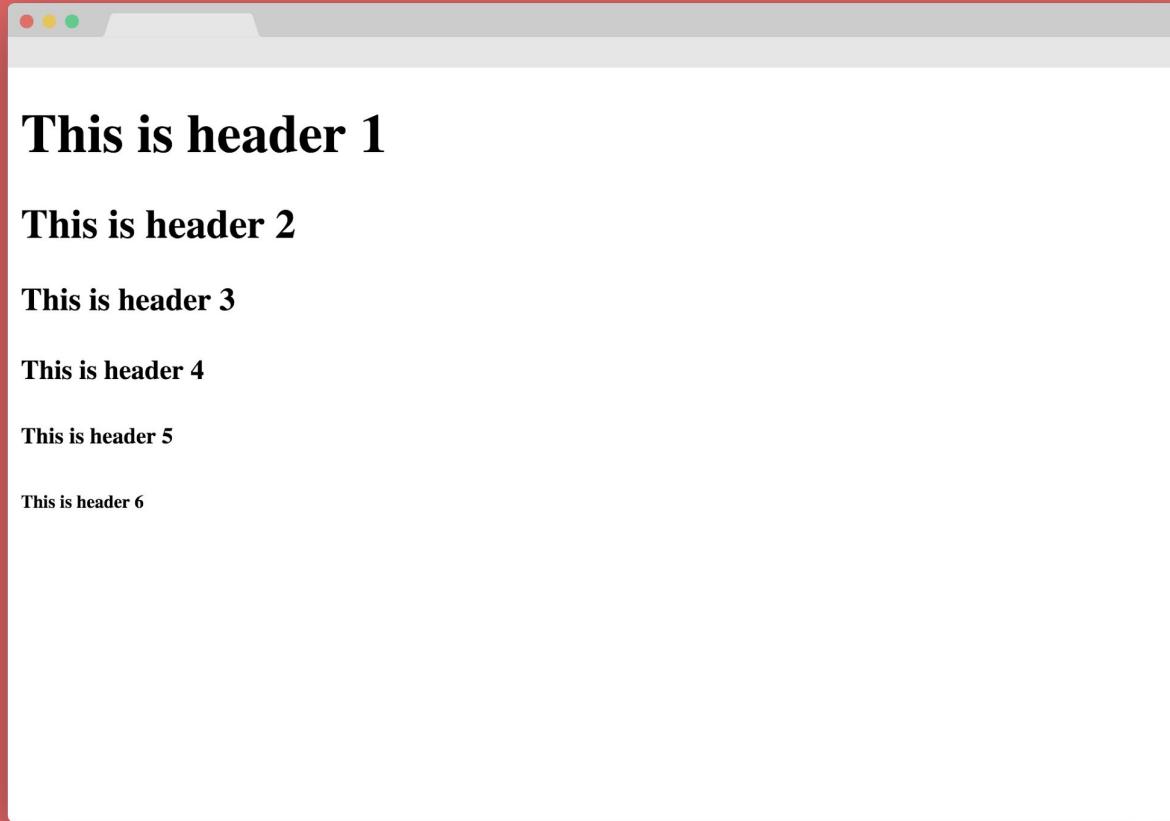
h1, h2, h3, h4, h5, h6

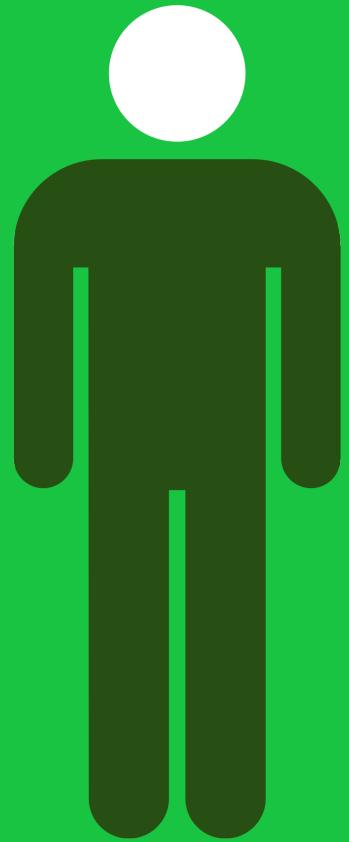
# heads.html

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>

  <body>
    <h1>This is header 1</h1>
    <h2>This is header 2</h2>
    <h3>This is header 3</h3>
    <h4>This is header 4</h4>
    <h5>This is header 5</h5>
    <h6>This is header 6</h6>
  </body>
</html>
```





ESSENTIAL

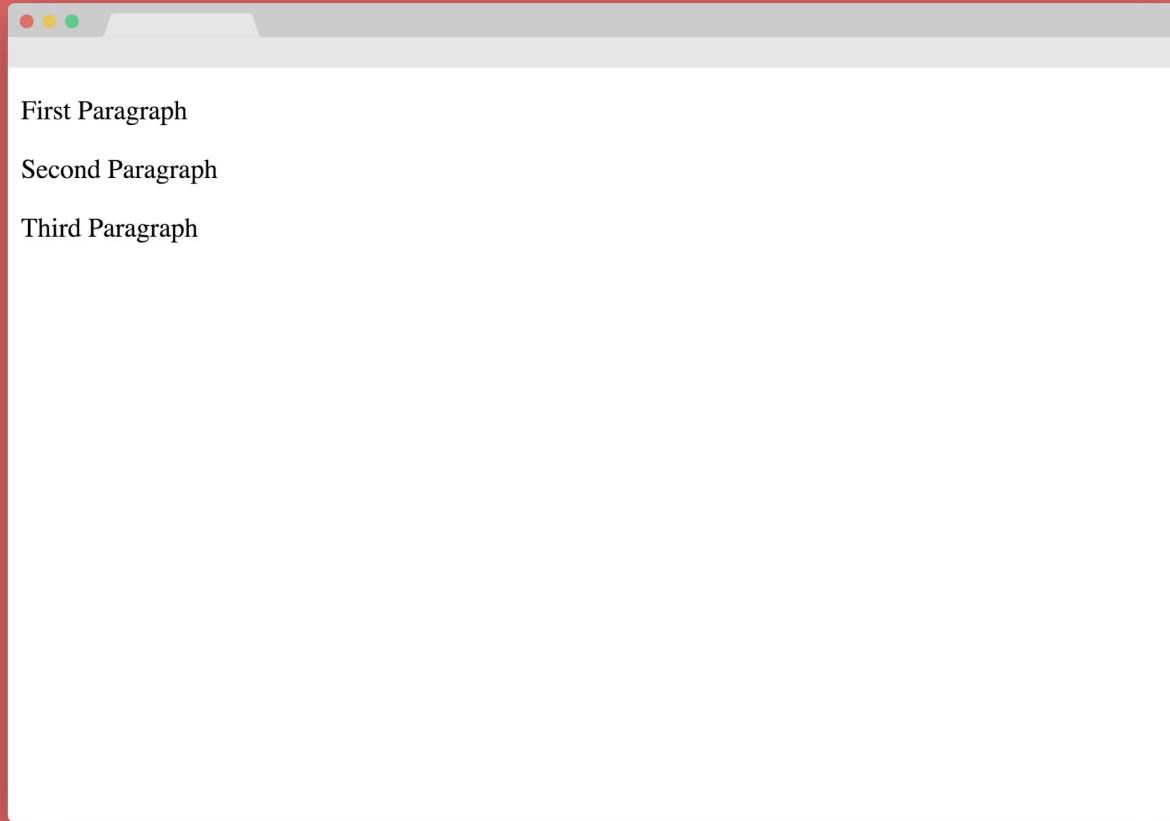
# PARAGRAPHS

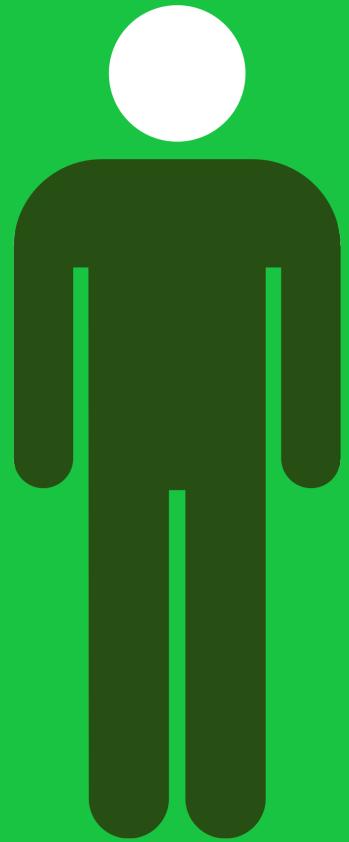
```
<p> ... </p>
```

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>

  <body>
    <p>First Paragraph</p>
    <p>Second Paragraph</p>
    <p>Third Paragraph</p>
  </body>
</html>
```





ESSENTIAL

# Hyperlinks

```
<a href="..."> ... </a>
```

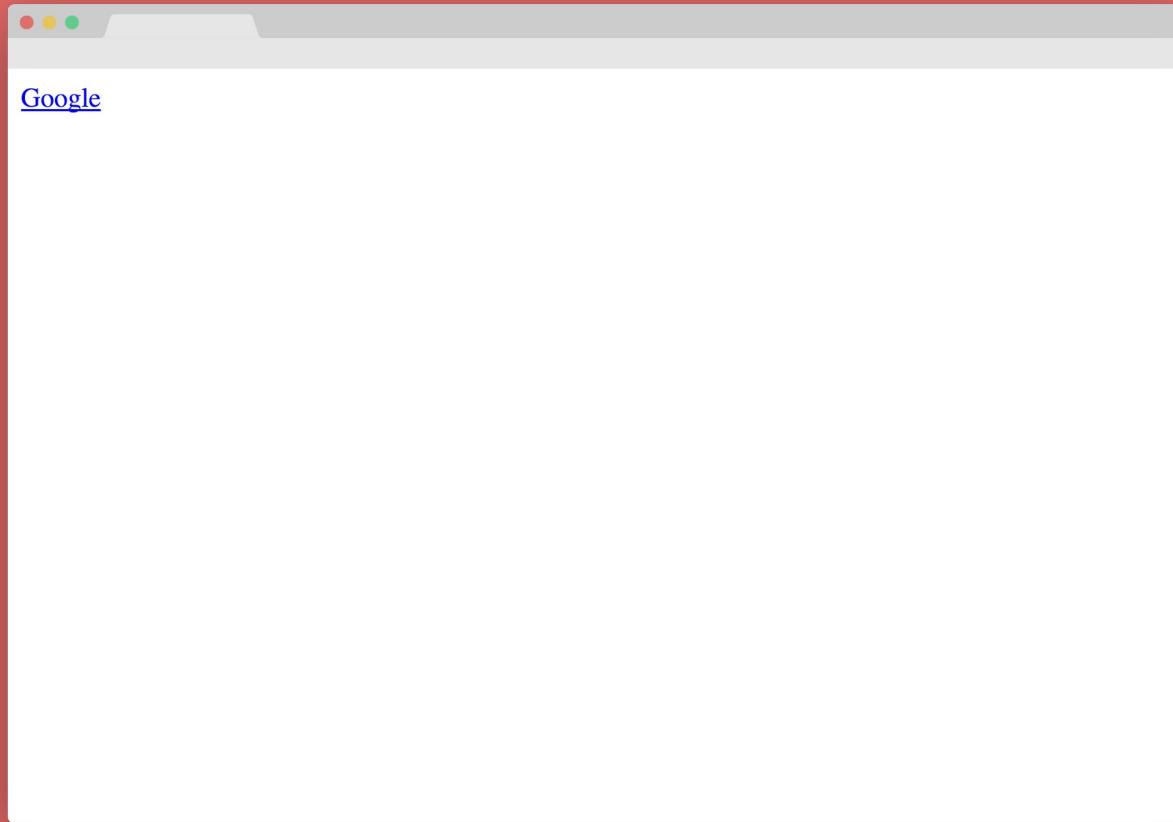
# links.html

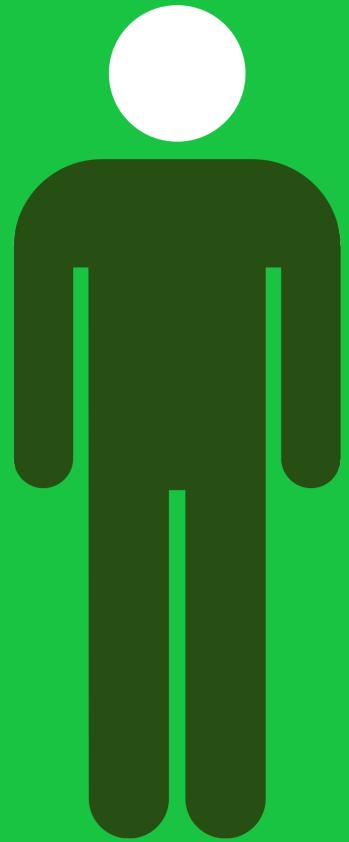
```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>

  <body>
    <a href="https://google.com/">Google</a>
  </body>
</html>
```

links.html





ESSENTIAL

# IMAGES

```

```

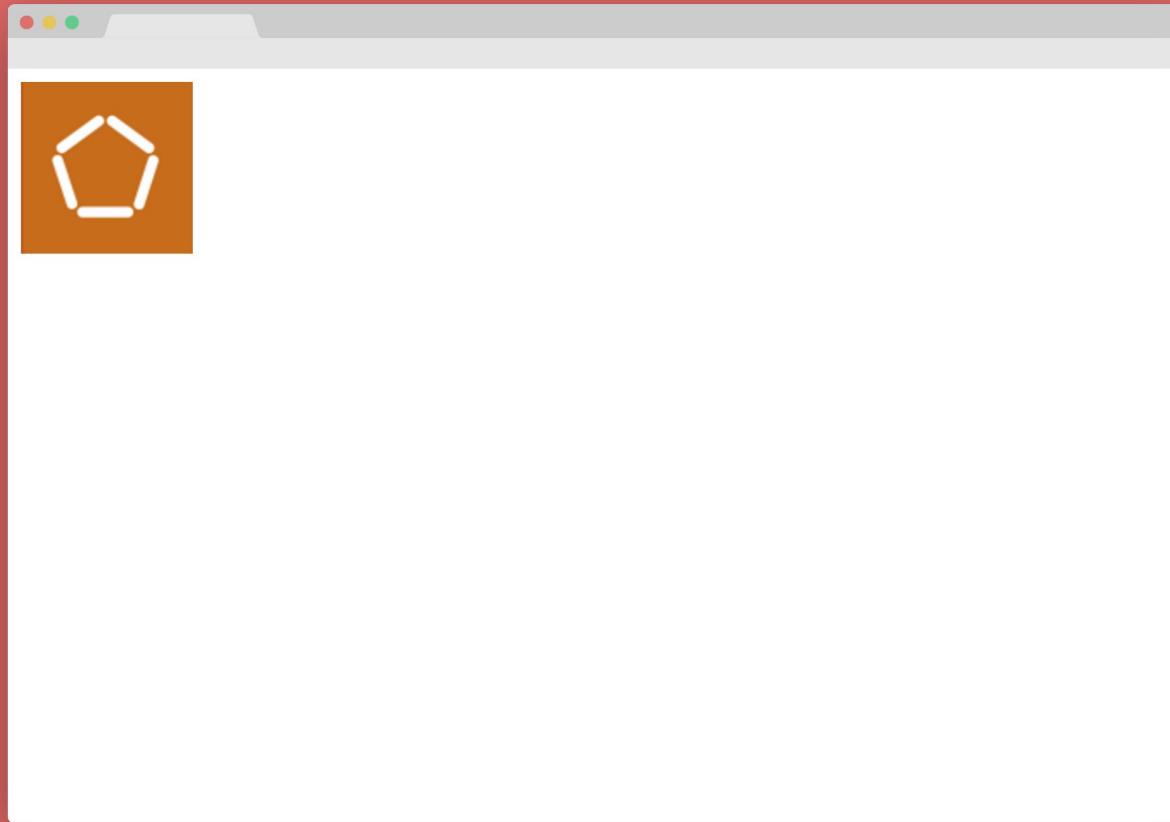
# images.html

```
<!DOCTYPE html>

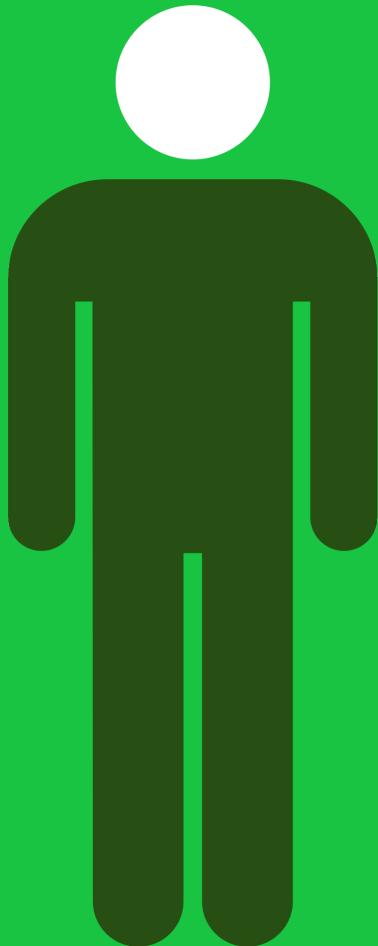
<html>
  <head>
    ...
  </head>

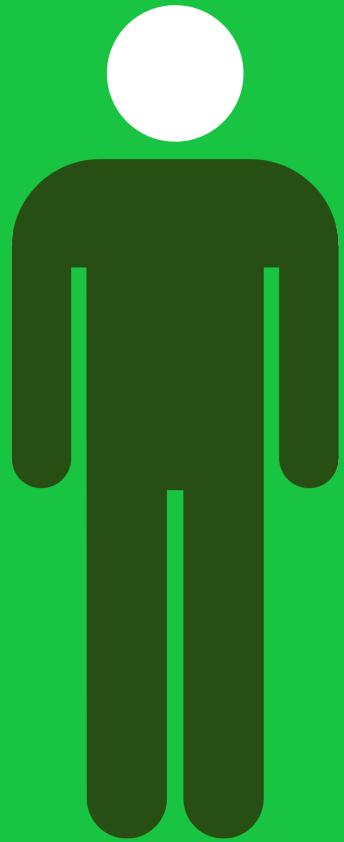
  <body>
    
  </body>
</html>
```

# images.html



**<BODY>**  
**LAYOUT**  
**TAGS**





LAYOUT

# TABLES

```
<table> ... </table>
```

REQUIRES ADDITIONAL TAGS

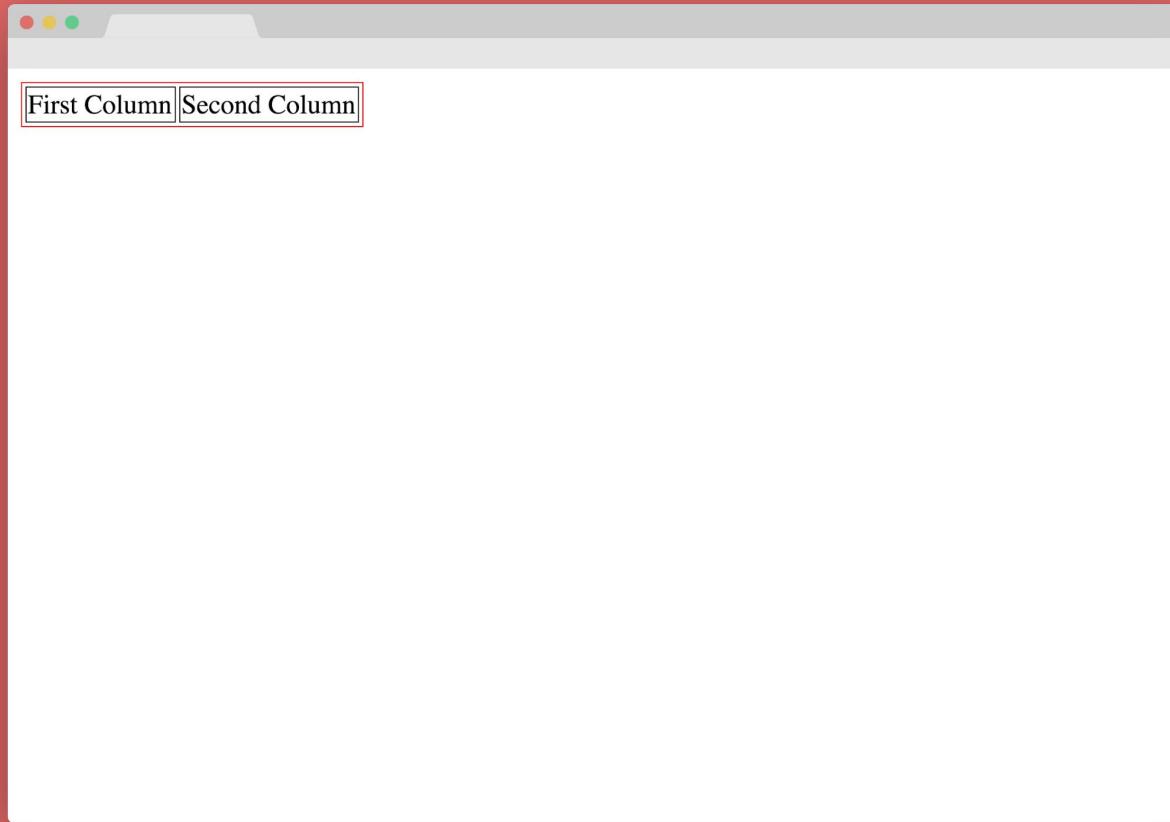
# tables.html

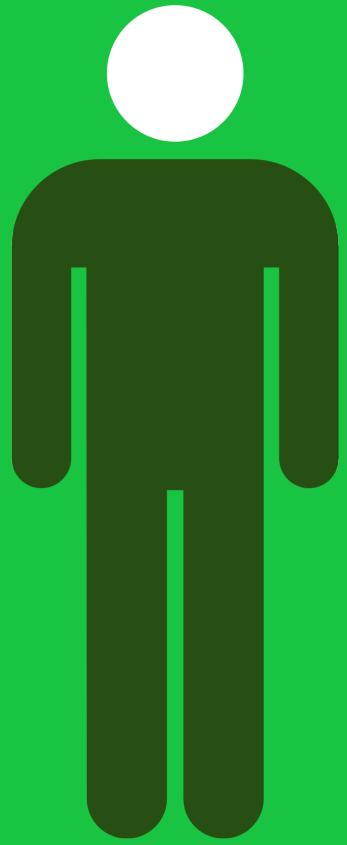
```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>

  <body>
    <table>
      <tr>
        <td>First Column</td>
        <td>Second Column</td>
      </tr>
    </table>
  </body>
</html>
```

# tables.html





LAYOUT

# LISTS

```
<ul> ... </ul>
```

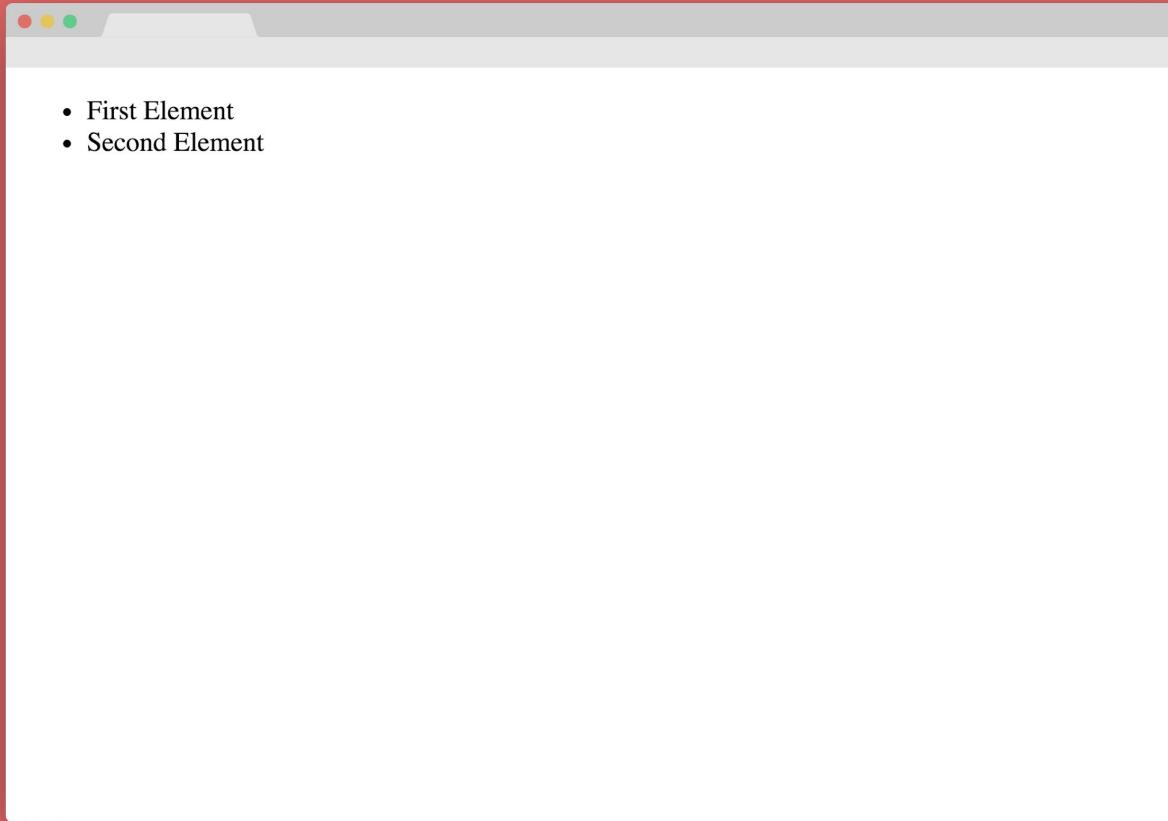
REQUIRES ADDITIONAL TAGS

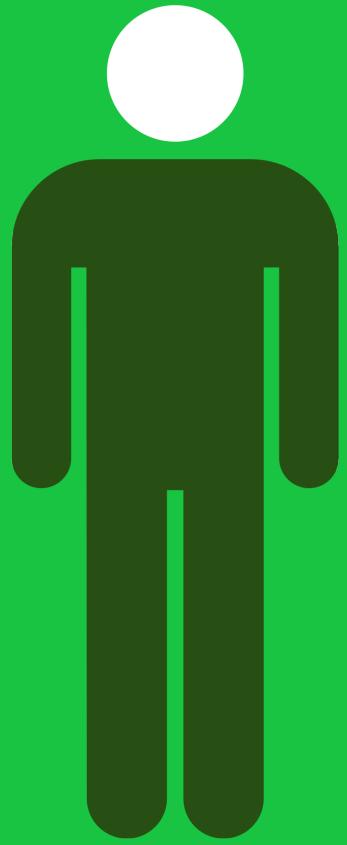
# lists.html

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>

  <body>
    <ul>
      <li>First Element</li>
      <li>Second Element</li>
    </ul>
  </body>
</html>
```





LAYOUT

# DIVISIONS

```
<div> ... </div>
```

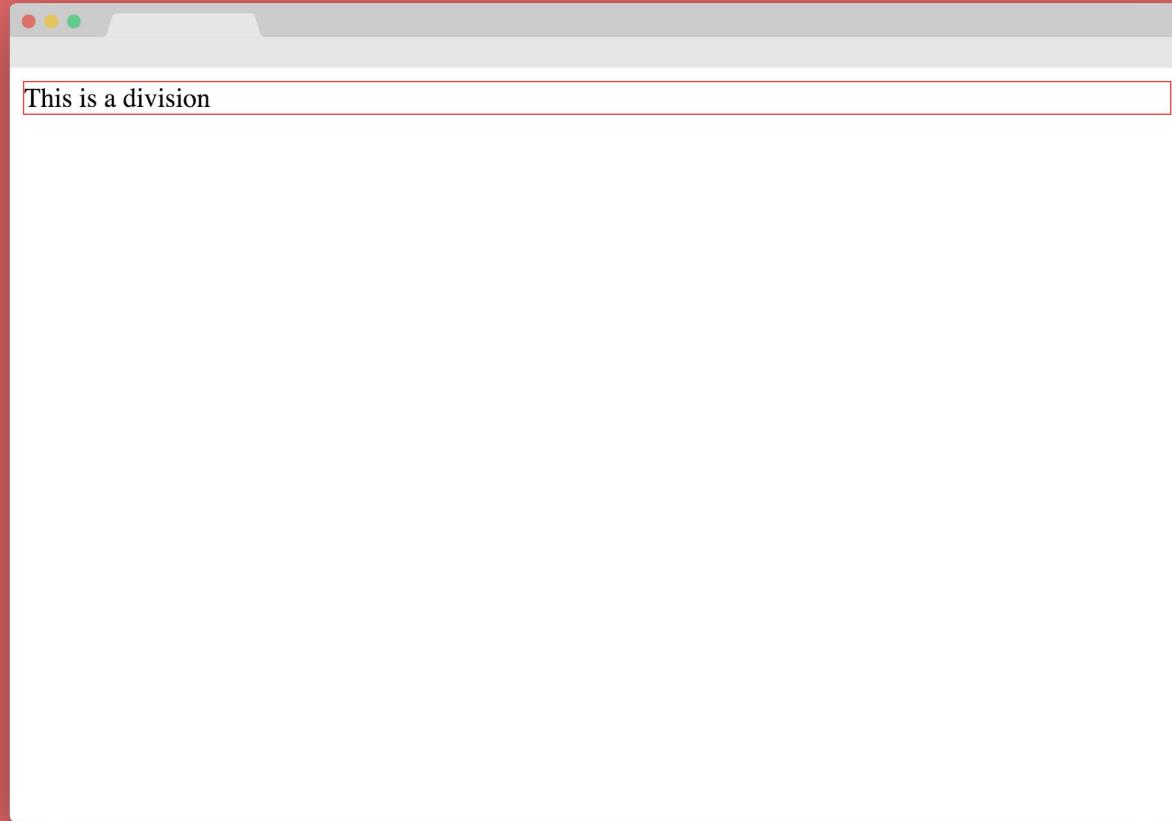
## divs.html

```
<!DOCTYPE html>

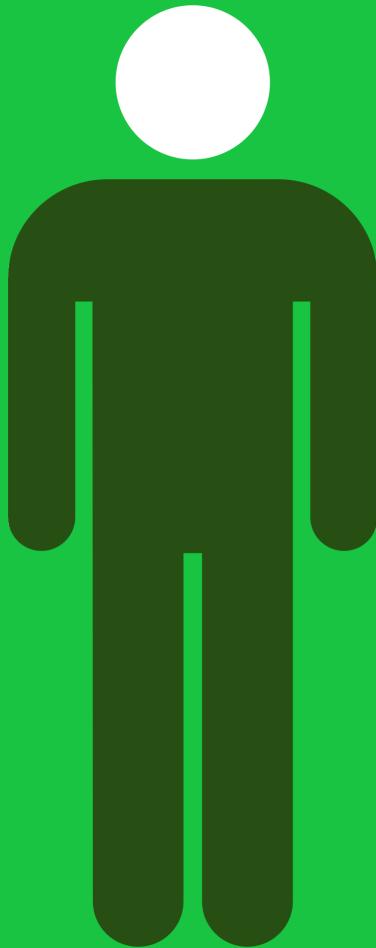
<html>
  <head>
    ...
  </head>

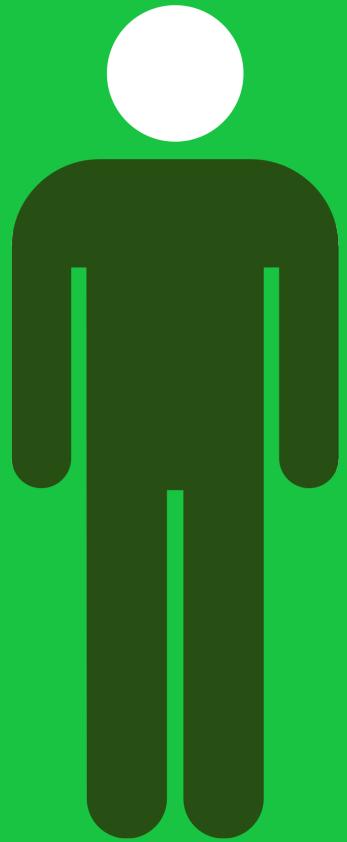
  <body>
    <div>This is a division</div>
  </body>
</html>
```

# divs.html



**<BODY>**  
**FORM**  
**TAGS**





**FORM**

# FORM CONTAINER

```
<form> ... </form>
```

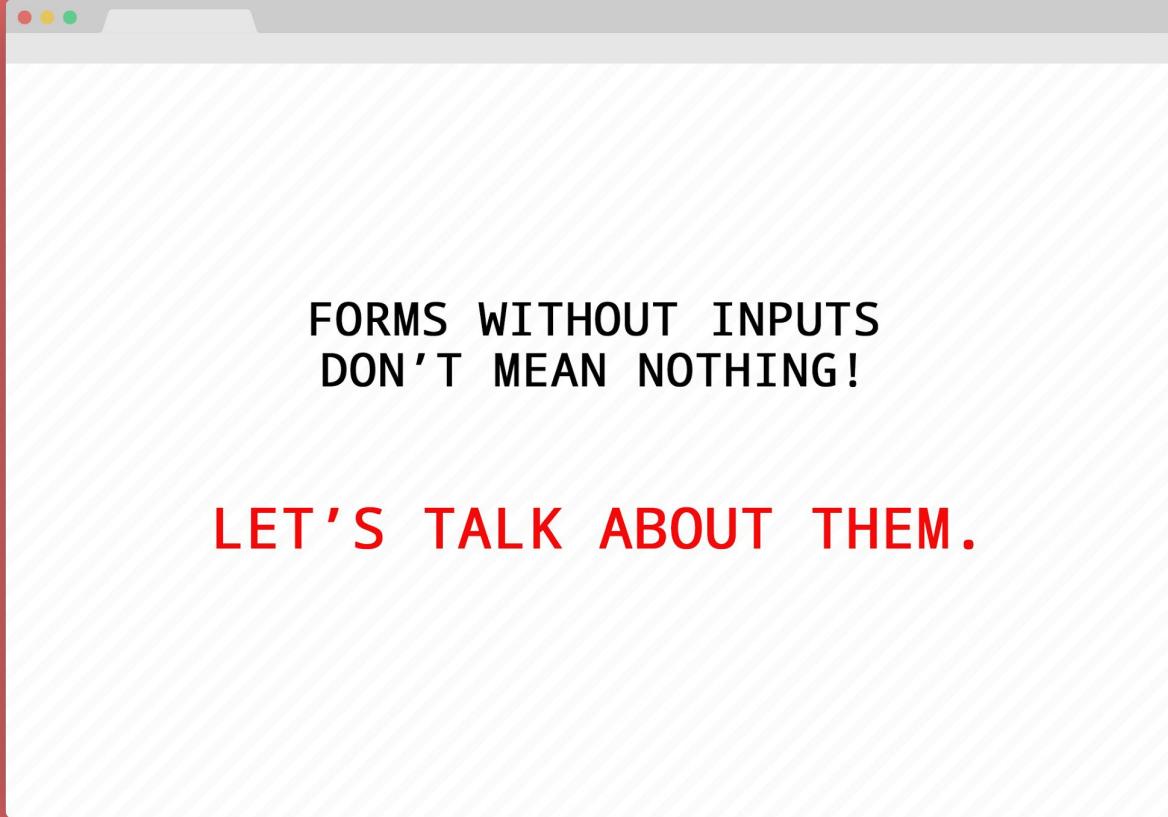
REQUIRES ATTRIBUTES

# forms.html

```
<!DOCTYPE html>

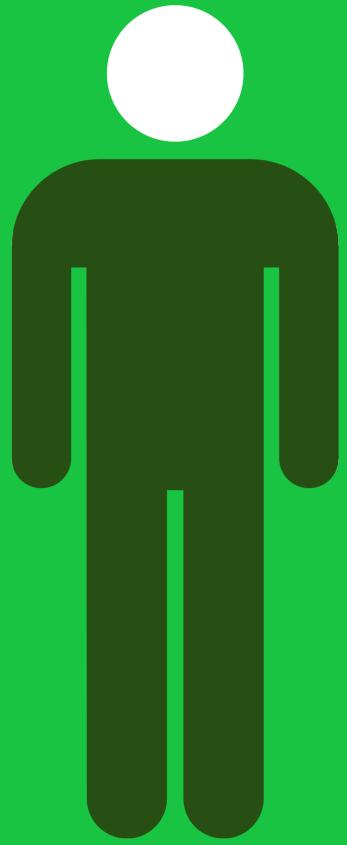
<html>
  <head>
    ...
  </head>

  <body>
    <form action="save.php" method="POST">
      ...
    </form>
  </body>
</html>
```



FORMS WITHOUT INPUTS  
DON'T MEAN NOTHING!

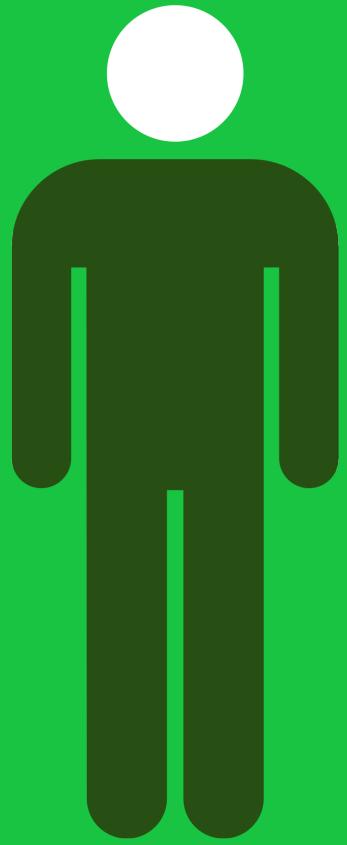
LET'S TALK ABOUT THEM.



FORM

# TEXTFIELD INPUT

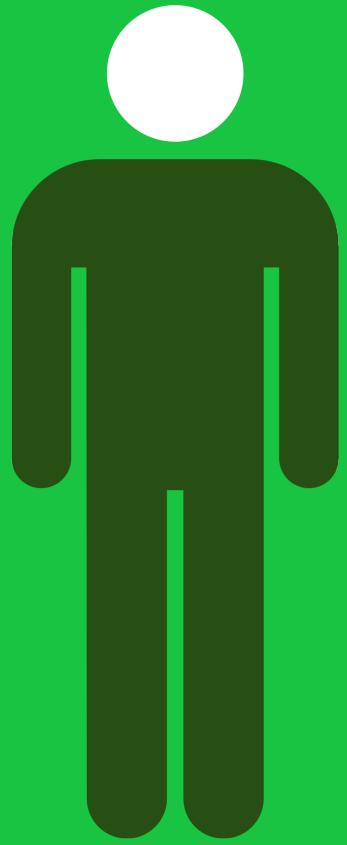
```
<input type="text" />
```



FORM

# PASSWORD INPUT

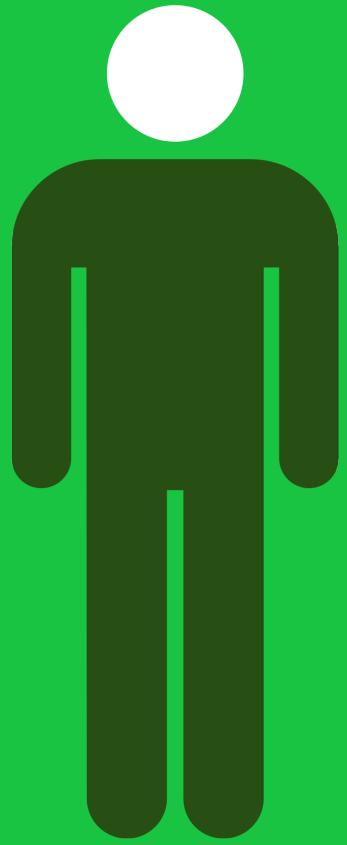
```
<input type="password" />
```



FORM

# CHECKBOX INPUT

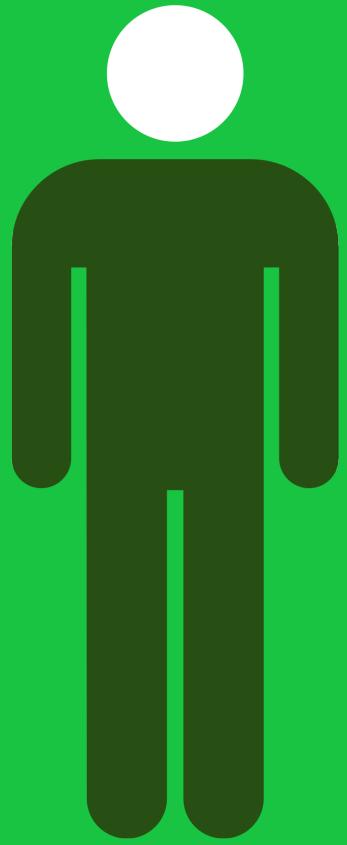
```
<input type="checkbox" />
```



FORM

# RADIO INPUT

```
<input type="radio" />
```



FORM

# SUBMIT INPUT

```
<input type="submit" />
```

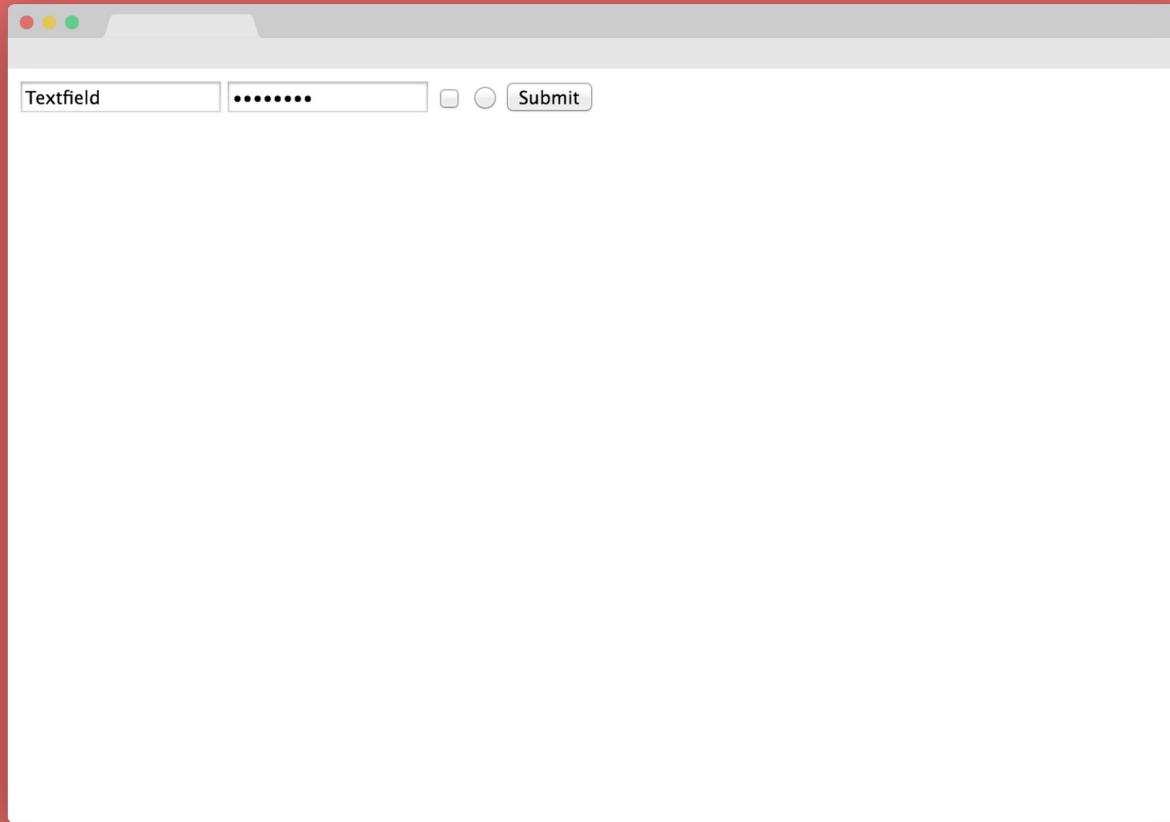
# forms.html

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>

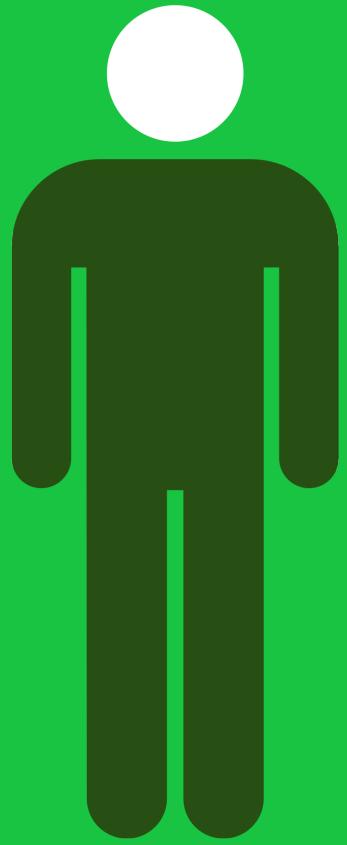
  <body>
    <form action="save.php" method="POST">
      <input type="text" />
      <input type="password" />
      <input type="checkbox" />
      <input type="radio" />
      <input type="submit" />
    </form>
  </body>
</html>
```

# forms.html



A screenshot of a web browser window displaying a form. The form consists of the following elements:

- A text input field labeled "Textfield".
- A text input field containing the placeholder ".....".
- A radio button.
- A radio button.
- A submit button labeled "Submit".



FORM

ALL THESE INPUTS  
HAVE VALUES

```
<input type="..." value="..." />
```

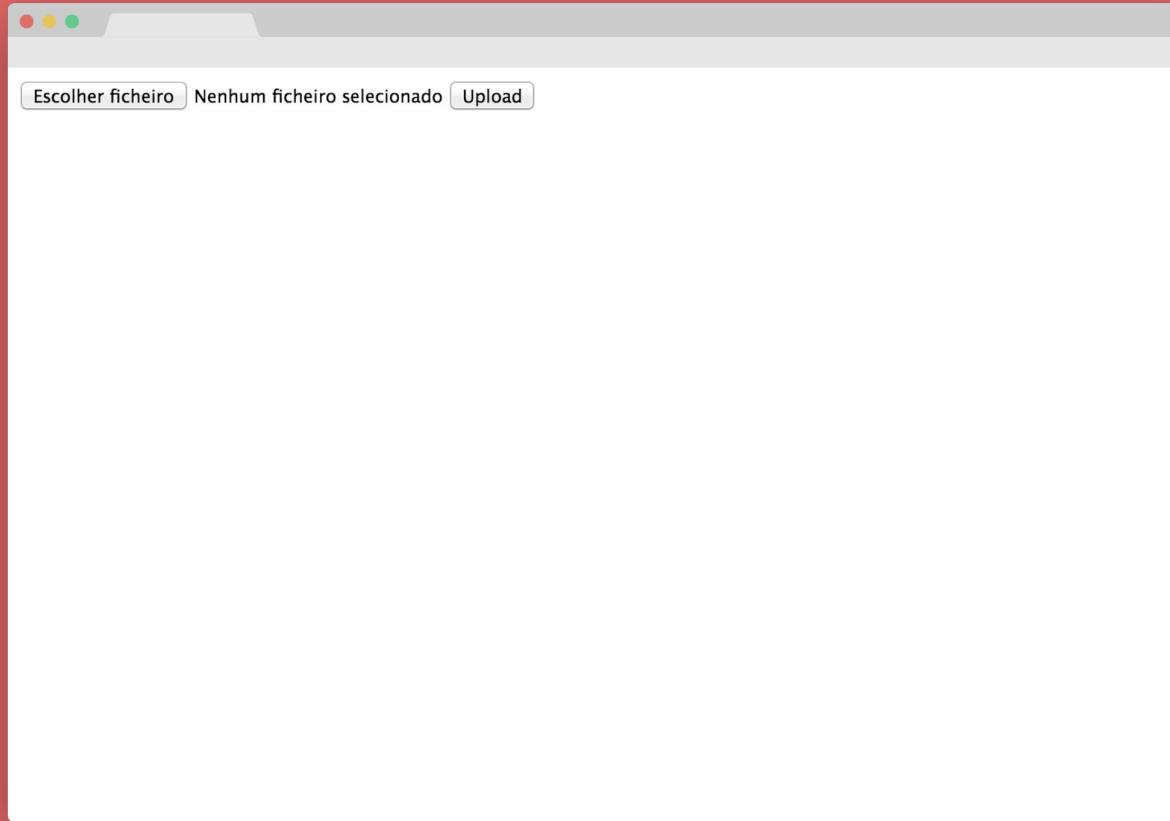
# files.html

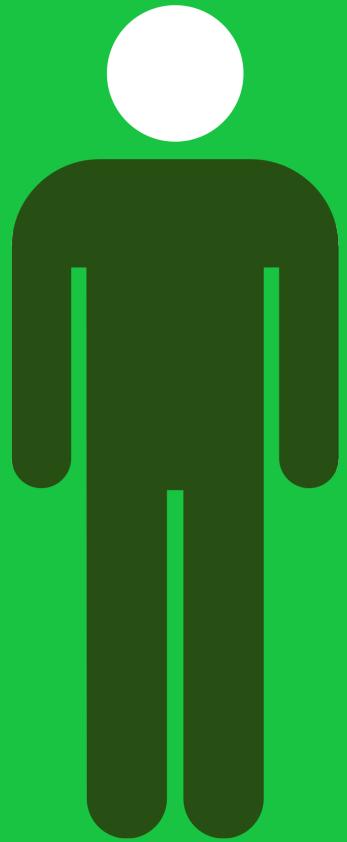
```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>

  <body>
    <form action="upload.php" method="POST">
      <input type="file" />
      <input type="submit" value="Upload" />
    </form>
  </body>
</html>
```

# files.html





FORM

# DROP-DOWN LIST

```
<select> ... </select>
```

REQUIRES OPTIONS

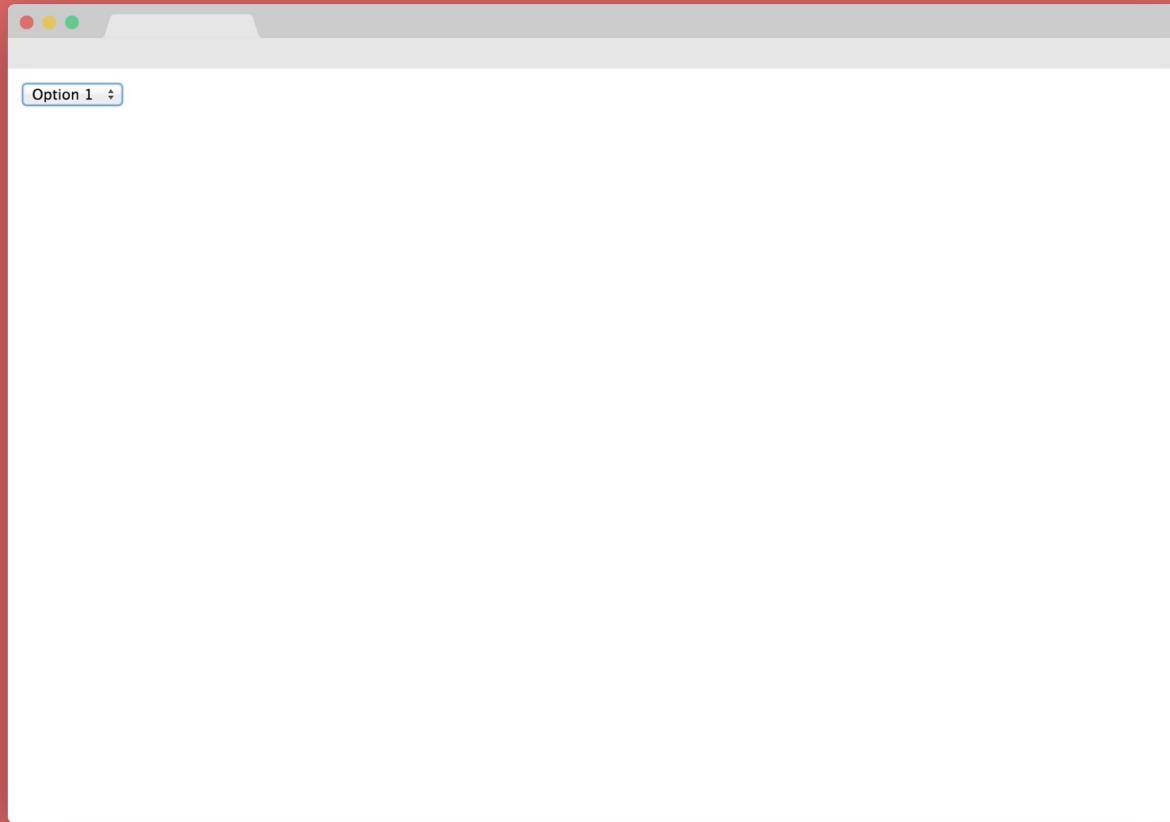
# selects.html

```
<!DOCTYPE html>

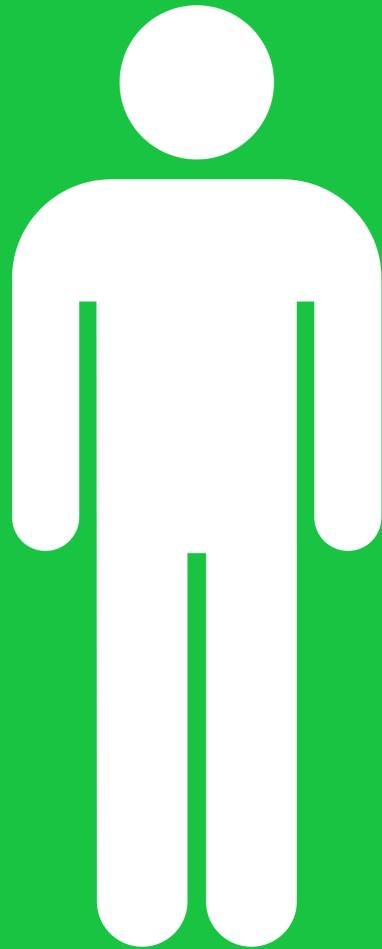
<html>
  <head>
    ...
  </head>

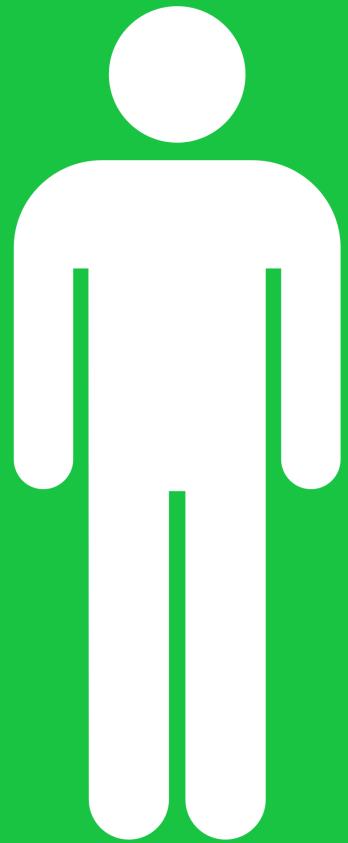
  <body>
    <form action="save.php" method="POST">
      <select>
        <option value="1">Option 1</option>
        <option value="2">Option 2</option>
        <option value="3">Option 3</option>
      </select>
    </form>
  </body>
</html>
```

# selects.html



**OTHER  
STUFF**





OTHER

# SCRIPTS

```
<script> ... </script>
```

```
<!DOCTYPE html>

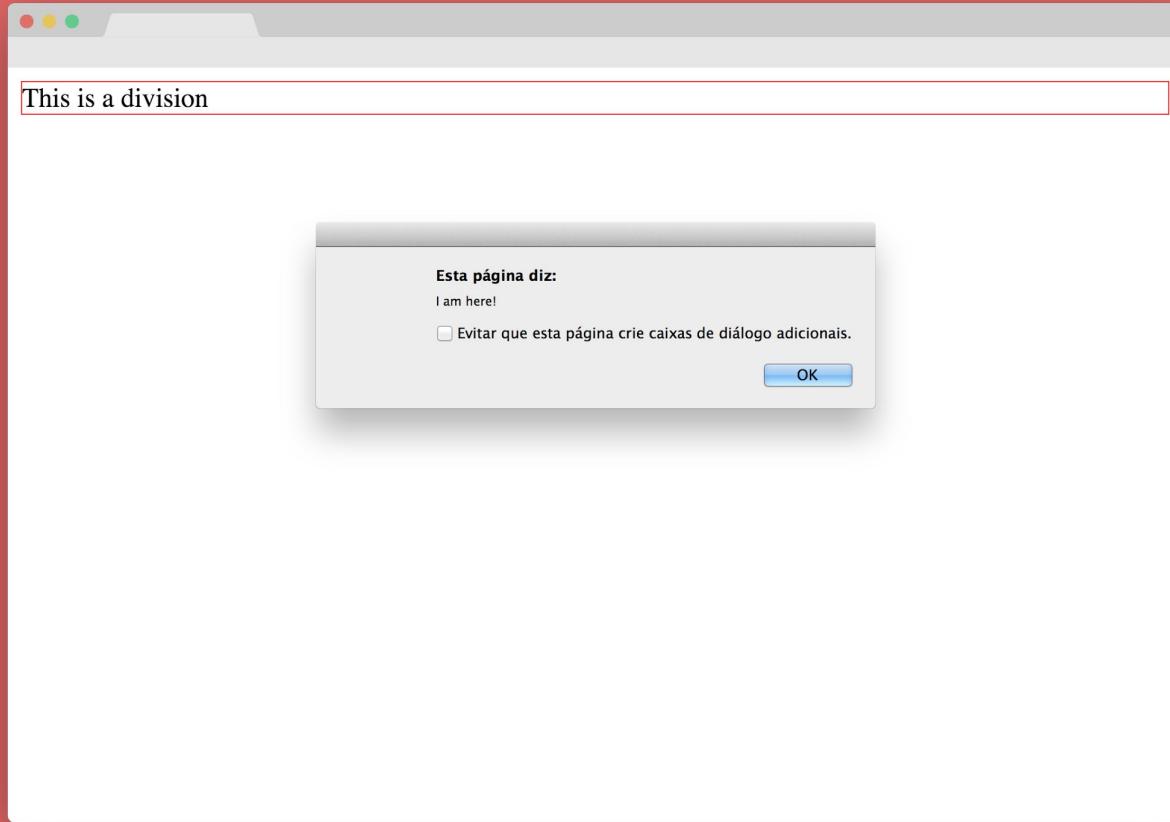
<html>
    <head>
        ...
    </head>

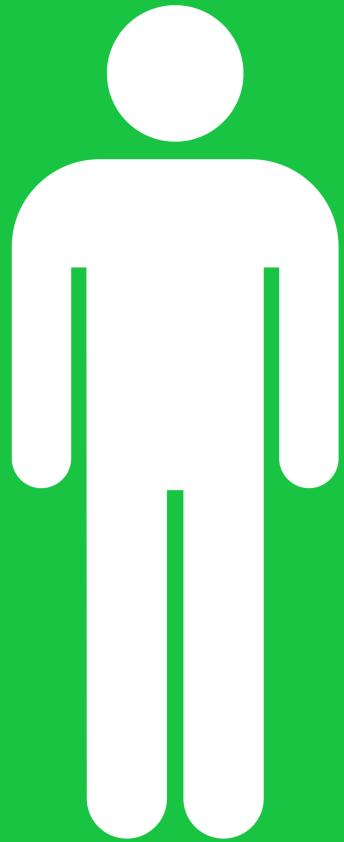
    <body>
        <div>This is a division</div>
        <script>
            alert("I am here!");
        </script>
    </body>
</html>
```

script.html

WE ARE USING JAVASCRIPT

# script.html





OTHER

# HTML ENTITIES

&lt; &gt;

# entities.html

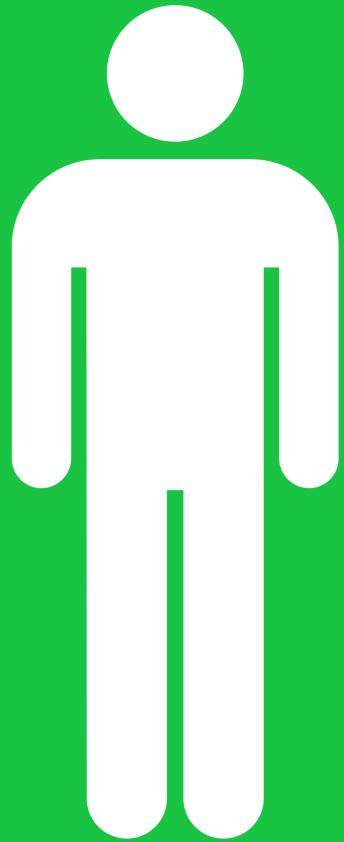
```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>

  <body>
    &lt; These entities are great &gt;
  </body>
</html>
```

# entities.html





OTHER

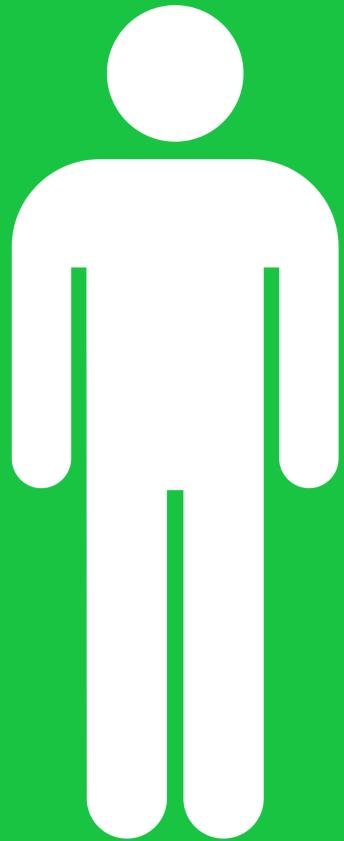
# HTML COMMENTS

```
<!-- comment -->
```

HTML COMMENTS DON'T LIKE TO BE NESTED

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>
  <body>
    <div>This is a division</div> <!-- My division -->
  </body>
</html>
```



OTHER

# ID ATTRIBUTE

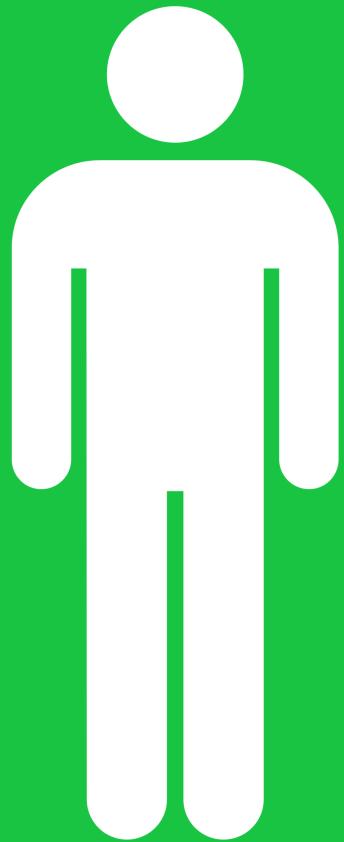
```
<element id=""> ... </element>
```

DON'T ASSIGN THE SAME ID TWICE  
IDs MUST BE UNIQUE!

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>

  <body>
    <div id="main-content">This is a division</div>
    <div id="main-content">Another</div> <!-- Don't do it! -->
  </body>
</html>
```



OTHER

# CLASS ATTRIBUTE

```
<element class=""> ... </element>
```

YOU CAN ASSIGN THE SAME CLASS TWICE

# classes.html

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>

  <body>
    <div class="rounded-box">This is a rounded box</div>
    <div class="rounded-box">This is another</div>
  </body>
</html>
```

# WHAT'S "NEW" HTML5



# HTML



# NEW

# AUDIO

```
<audio src="" />
```

# HTML



"NEW"

# VIDEO

```
<video> ... </video>
```

REQUIRES SOURCE TAGS

# HTML



# "NEW"

## AND MUCH MORE...

[http://www.w3schools.com/html/  
html5\\_intro.asp](http://www.w3schools.com/html/html5_intro.asp)

FEEL FREE TO USE THE POWER OF HTML5

A wide-angle photograph of a rural landscape at sunset. A paved road with white dashed lines stretches from the foreground into the distance, converging towards a bright sun low on the horizon. The sky is filled with dramatic, layered clouds in shades of orange, yellow, and blue. In the background, there are rolling hills and mountains under the setting sun.

AND THE NEXT  
STEP IS



**CASCADING  
STYLE SHEETS**

**ONLY**  
**CONTAINS STYLES**

# WHY

## DO WE USE CSS?



**HELPS AVOID DUPLICATION**

**MAKES MAINTENANCE EASIER**

**ALLOWS SITE-WIDE CHANGE IN ONE PLACE**

**EFFICIENCY**

# HOW CAN WE USE CSS?



# IMPORT

## USING LINK TAG ON HTML

```
<!DOCTYPE html>

<html>
  <head>
    <title>My First Page with CSS</title>
    <link rel="stylesheet" href="css/style.css" />
  </head>

  <body>
    ...
  </body>
</html>
```

# STARTING WITH CSS SYNTAX

```
selector {  
    attribute: value;  
    ...  
}
```

# WHICH SELECTORS?

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>
  <body>
    <div>This is a division</div>
  </body>
</html>
```

## ELEMENT SELECTOR

```
div { ... }
```

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>
  <body>
    <div id="main-content">Hello World!</div>
  </body>
</html>
```

## #ID SELECTOR

```
#main-content { ... }
```

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>
  <body>
    <div class="rounded-box">This is a rounded box</div>
    <div class="rounded-box">This is another</div>
  </body>
</html>
```

## .CLASS SELECTOR

```
.rounded-box { ... }
```

**WHICH  
ATTRIBUTES?**

LOTS

OF THEM

# CSS

## ESSENTIAL ATTRIBUTES



**CS5**



# BACKGROUND

```
background-color: #A5A5A5;
```

**ESSENTIAL**

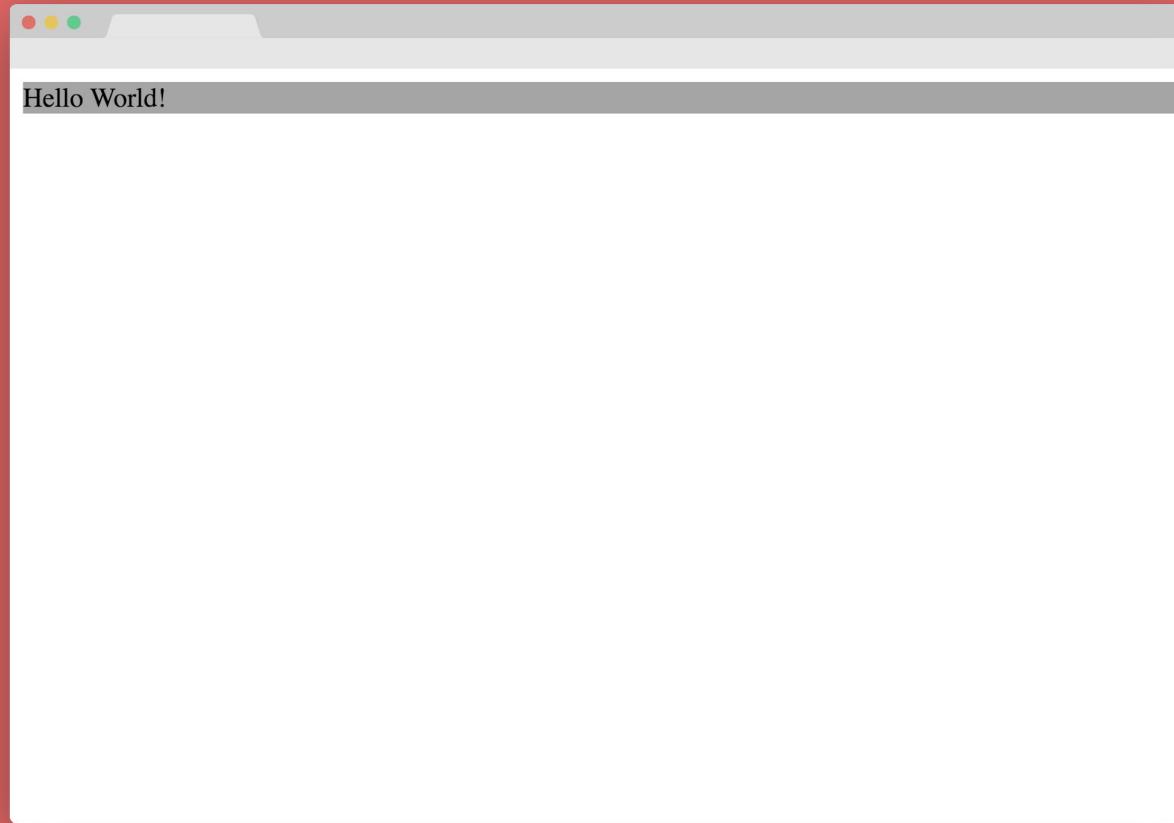
```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>

  <body>
    <div id="main-content">Hello World!</div>
  </body>
</html>
```

CSS FILE

```
#main-content { background-color: #A5A5A5; }
```



**css**



**ESSENTIAL**

**TEXT**

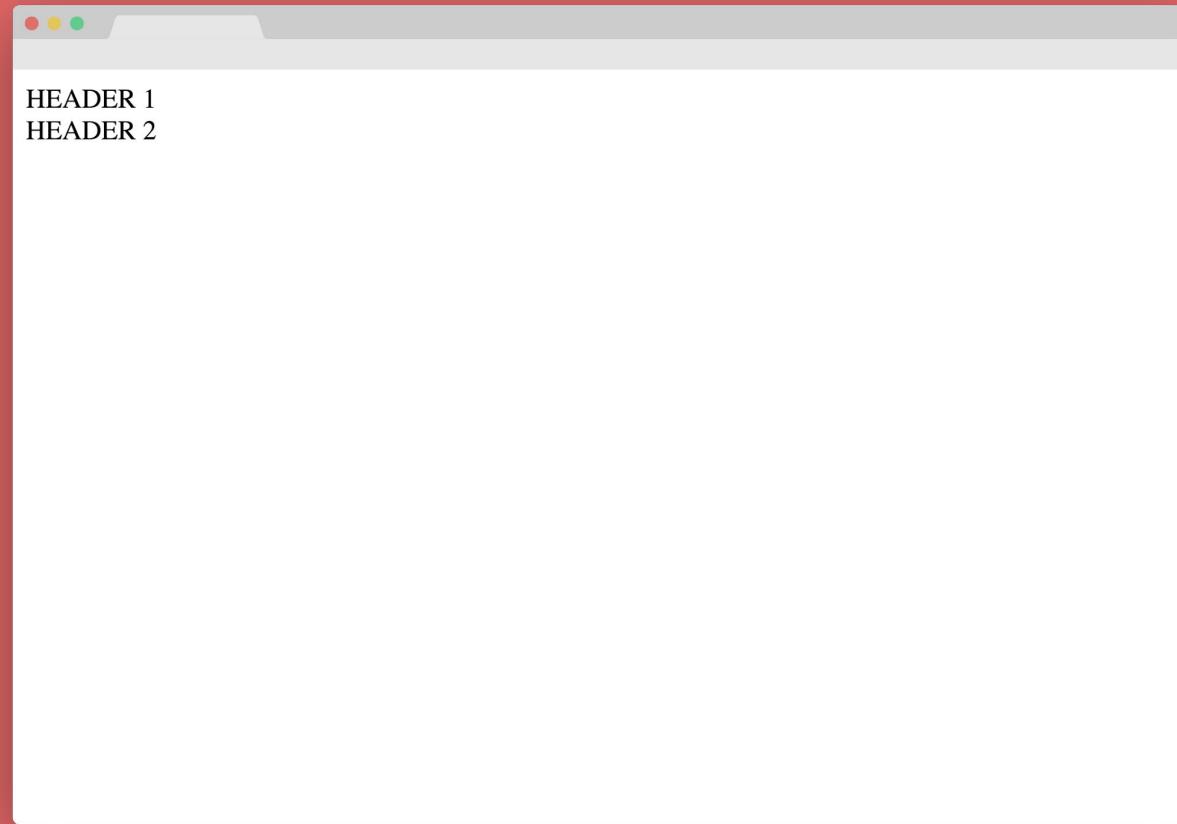
`text-transform: uppercase;`

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>
  <body>
    <div class="header">Header 1</div>
    <div class="header">Header 2</div>
  </body>
</html>
```

CSS FILE

```
.header { text-transform: uppercase; }
```



**CS5**



**ESSENTIAL**

**FONT**

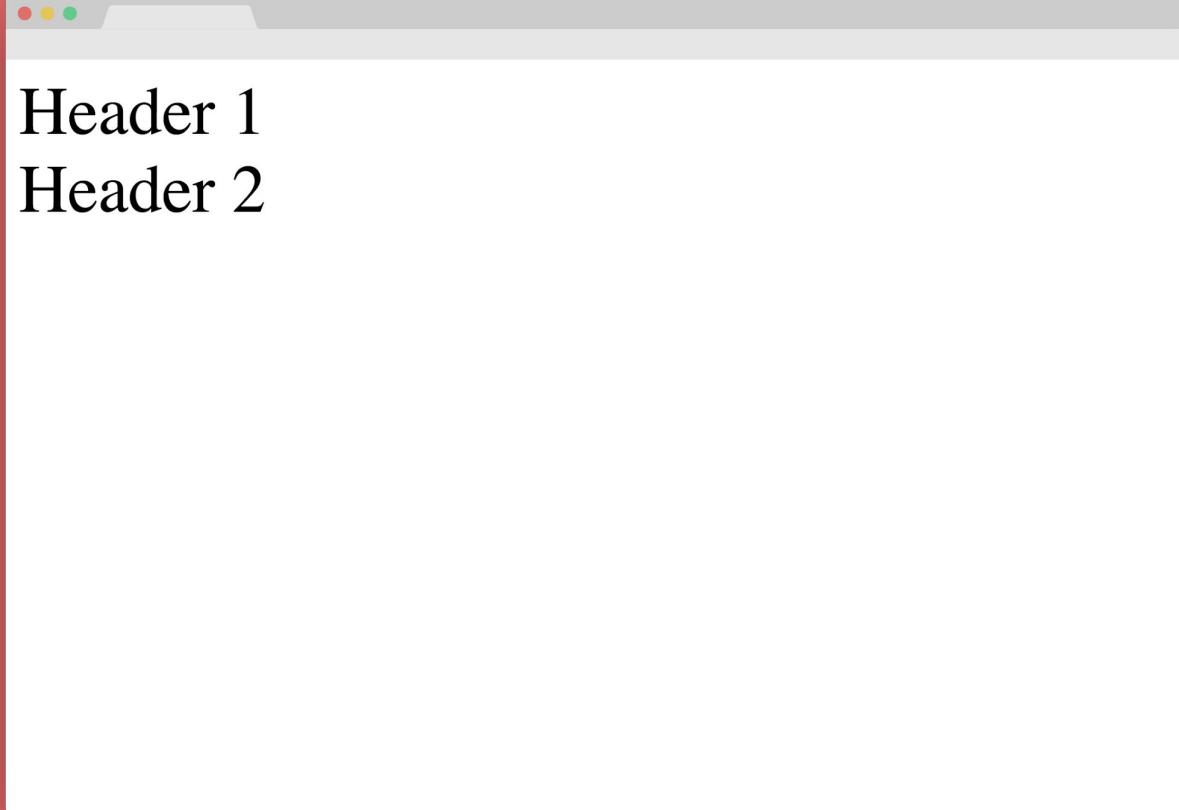
`font-size: 40px;`

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>
  <body>
    <div class="header">Header 1</div>
    <div class="header">Header 2</div>
  </body>
</html>
```

CSS FILE

```
.header { font-size: 40px; }
```



Header 1

Header 2

**CS5**



**ESSENTIAL**

# BORDER

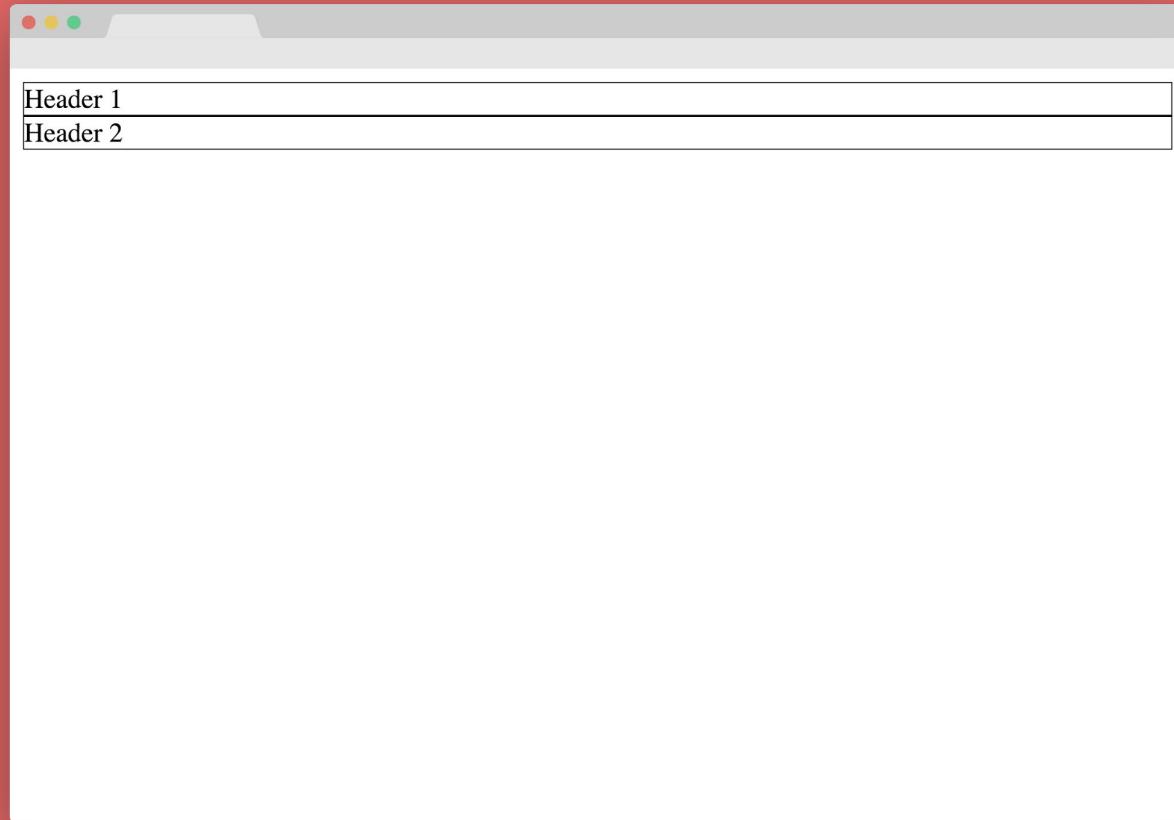
```
border: 1px solid #000000;
```

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>
  <body>
    <div class="header">Header 1</div>
    <div class="header">Header 2</div>
  </body>
</html>
```

CSS FILE

```
.header { border: 1px solid #000000; }
```



**CS5**



**ESSENTIAL**

# TEXT COLOR

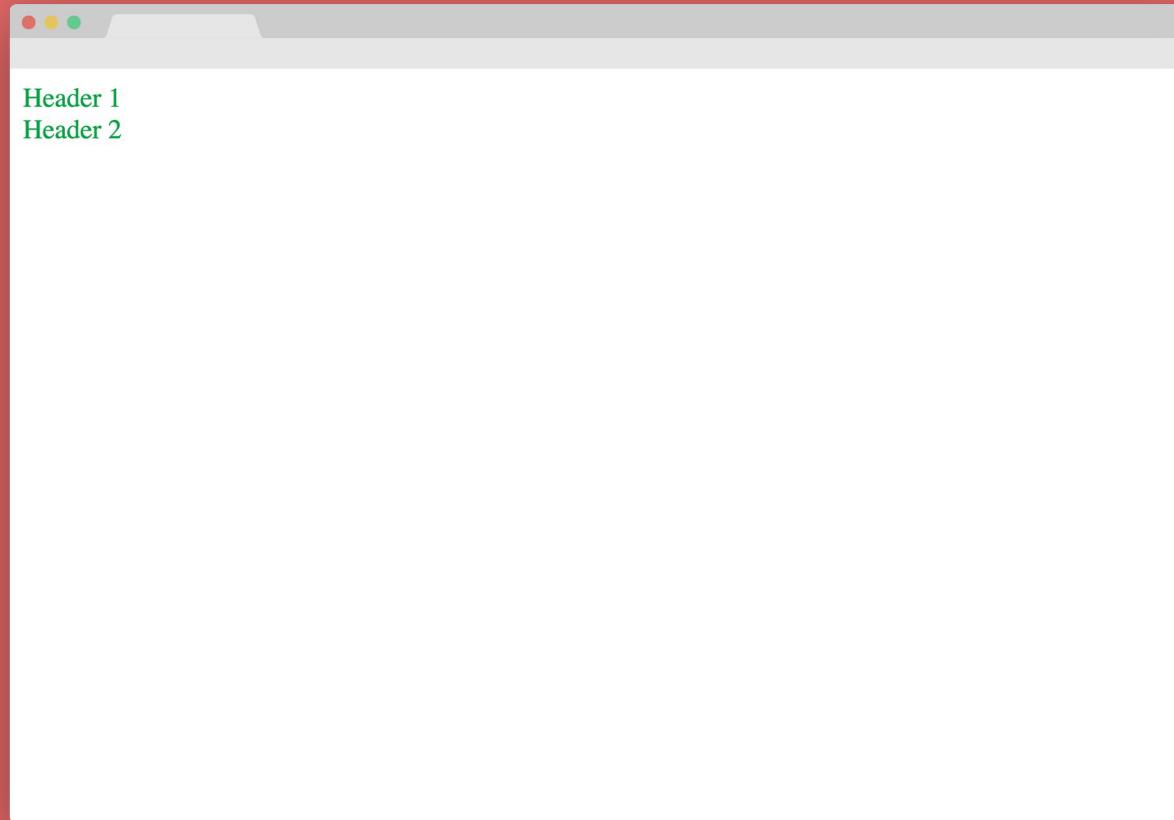
```
color: #00A244;
```

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>
  <body>
    <div class="header">Header 1</div>
    <div class="header">Header 2</div>
  </body>
</html>
```

CSS FILE

```
.header { color: #00A244; }
```



**CS5**



**ESSENTIAL**

# MARGIN

```
margin: 25px;
```

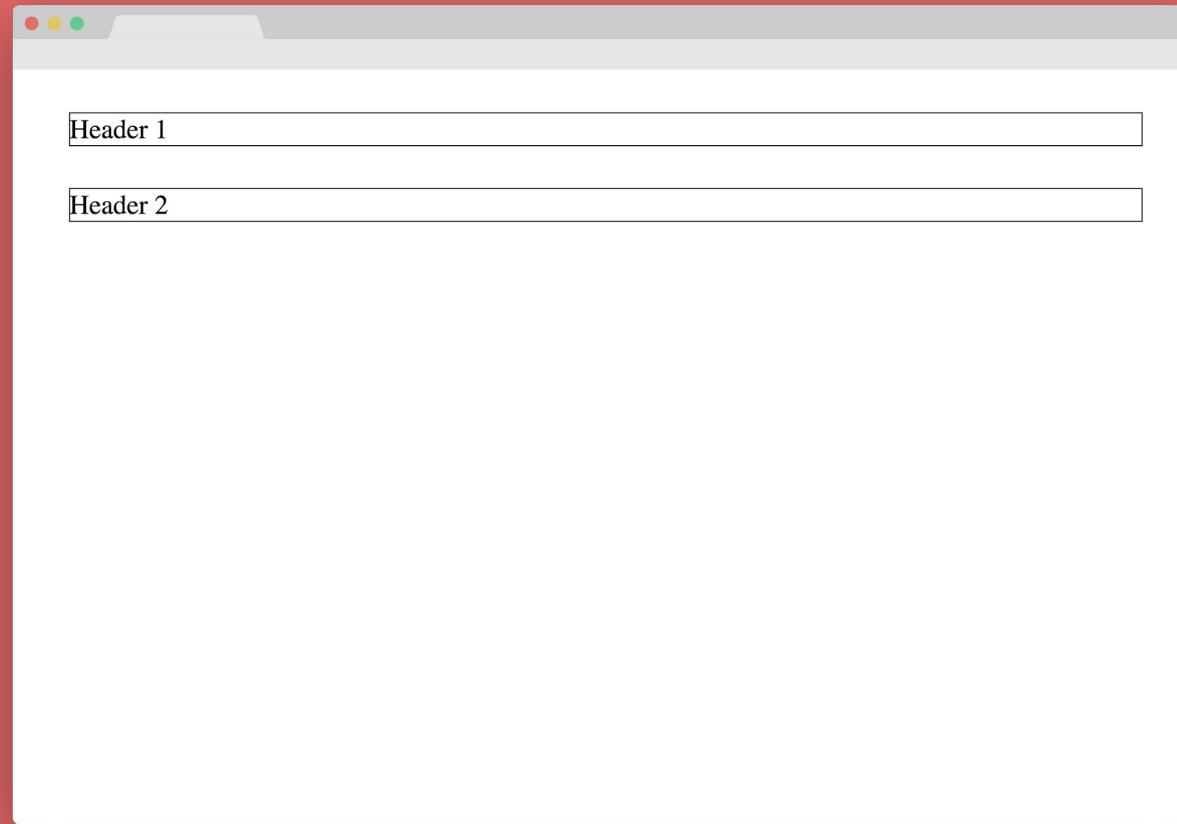
TIP: use `0 auto;` to center horizontally

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>
  <body>
    <div class="header">Header 1</div>
    <div class="header">Header 2</div>
  </body>
</html>
```

CSS FILE

```
.header { margin: 25px; }
```



**CS5**



**ESSENTIAL**

# PADDING

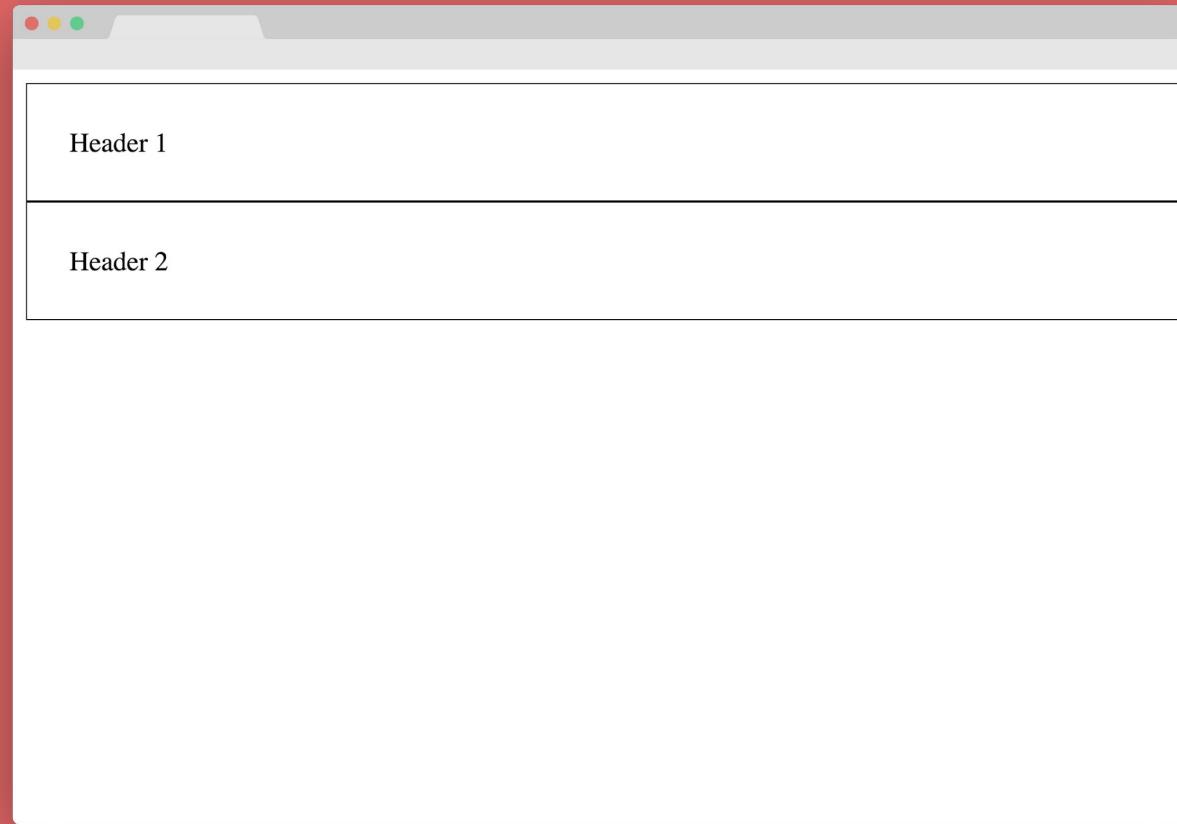
`padding: 25px;`

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>
  <body>
    <div class="header">Header 1</div>
    <div class="header">Header 2</div>
  </body>
</html>
```

CSS FILE

```
.header { padding: 25px; }
```



**css**



**ESSENTIAL**

# DISPLAY

`display: inline-block;`

DIV DEFAULT VALUE IS '*block*'

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>

  <body>
    <div class="header">Header 1</div>
    <div class="header">Header 2</div>
  </body>
</html>
```

CSS FILE

```
.header { display: inline-block; }
```



**css**



**ESSENTIAL**

**FLOATING**

`float: right;`

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>
  <body>
    <div class="header">Header 1</div>
    <div class="header">Header 2</div>
  </body>
</html>
```

CSS FILE

```
.header { float: right; }
```



**css**



**ESSENTIAL**

# POSITIONING

```
position: absolute;
```

IF PARENT HAS RELATIVE POSITION, THEN THIS POSITION IS RELATIVE TO PARENT'S POSITION

**css**



**ESSENTIAL**

# POSITIONING

`top: 50px;`

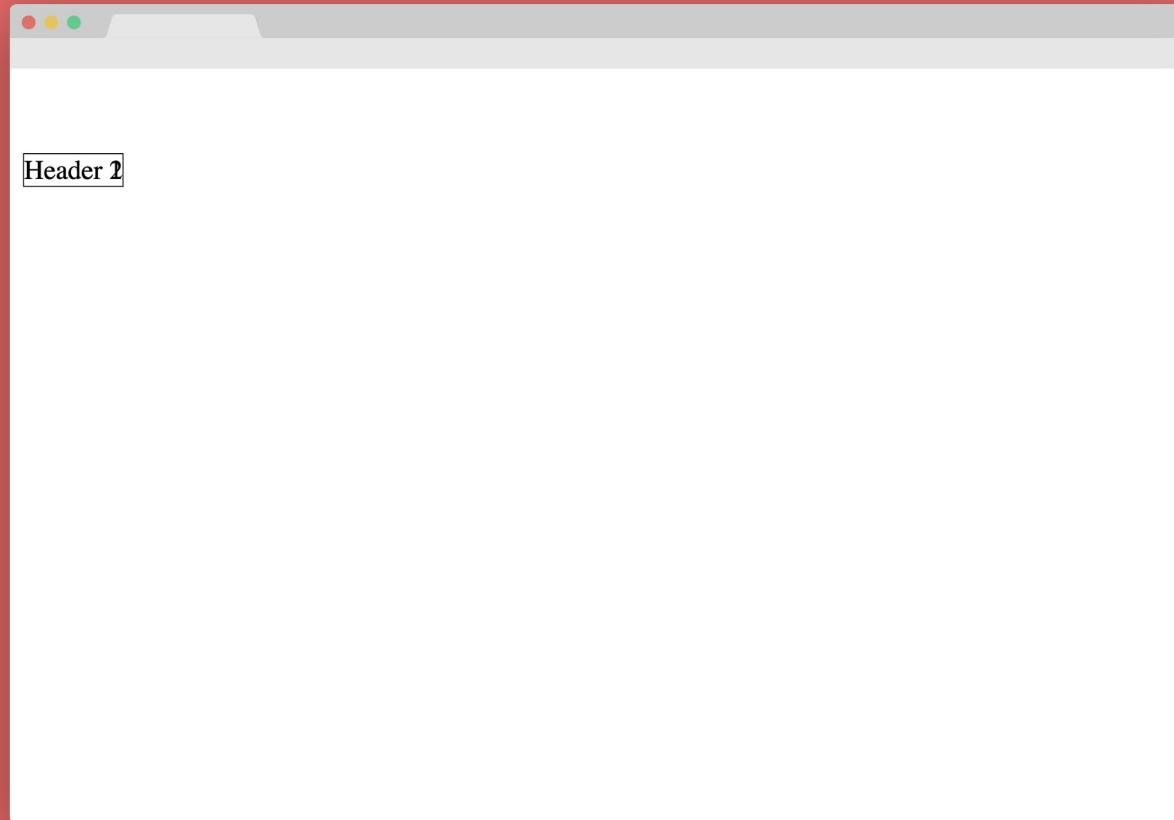
THE ELEMENT(s) HAS 50px TOP OFFSET

```
<!DOCTYPE html>

<html>
  <head>
    ...
  </head>
  <body>
    <div class="header">Header 1</div>
    <div class="header">Header 2</div>
  </body>
</html>
```

CSS FILE

```
.header { position: absolute; top: 50px; }
```



# CSS

## ADVANCED TOPICS



**css**



**ADVANCED**

# EVENTS

```
selector:hover {  
    attribute: value;  
    ...  
}
```

ATTRIBUTES WILL BE APPLIED ON HOVER EVENT

[ link | visited | hover | active ]

css



# ATTRIBUTE-BASED SELECT

```
selector([disabled]) {  
    attribute: value;  
    ...  
}
```

ATTRIBUTES WILL BE APPLIED IF ELEMENT HAS  
*'DISABLED'* ATTRIBUTE

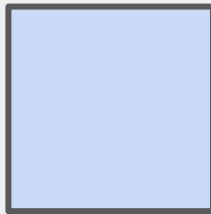
ADVANCED

# FOR MORE THAN AN INTRODUCTION

<http://www.w3schools.com/css/>

## GO AND LEARN A MILLION THINGS!

# QUESTIONS



**Your Name**  
Student  
20 years old

## Skills

HTML

CSS

LaTeX

Haskell