Intro to HTML

CISC-2350-R01 | Fall 2017 | Week 2

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Today's Agenda

- Attendance
- Questions from last week's material
- Discuss homework reading
- Review Sublime
- Intro to HTML
- HTML Structure
- HTML Tags
- In-class exercise

Attendance

Connecting to wifi

Instructions can be found here:

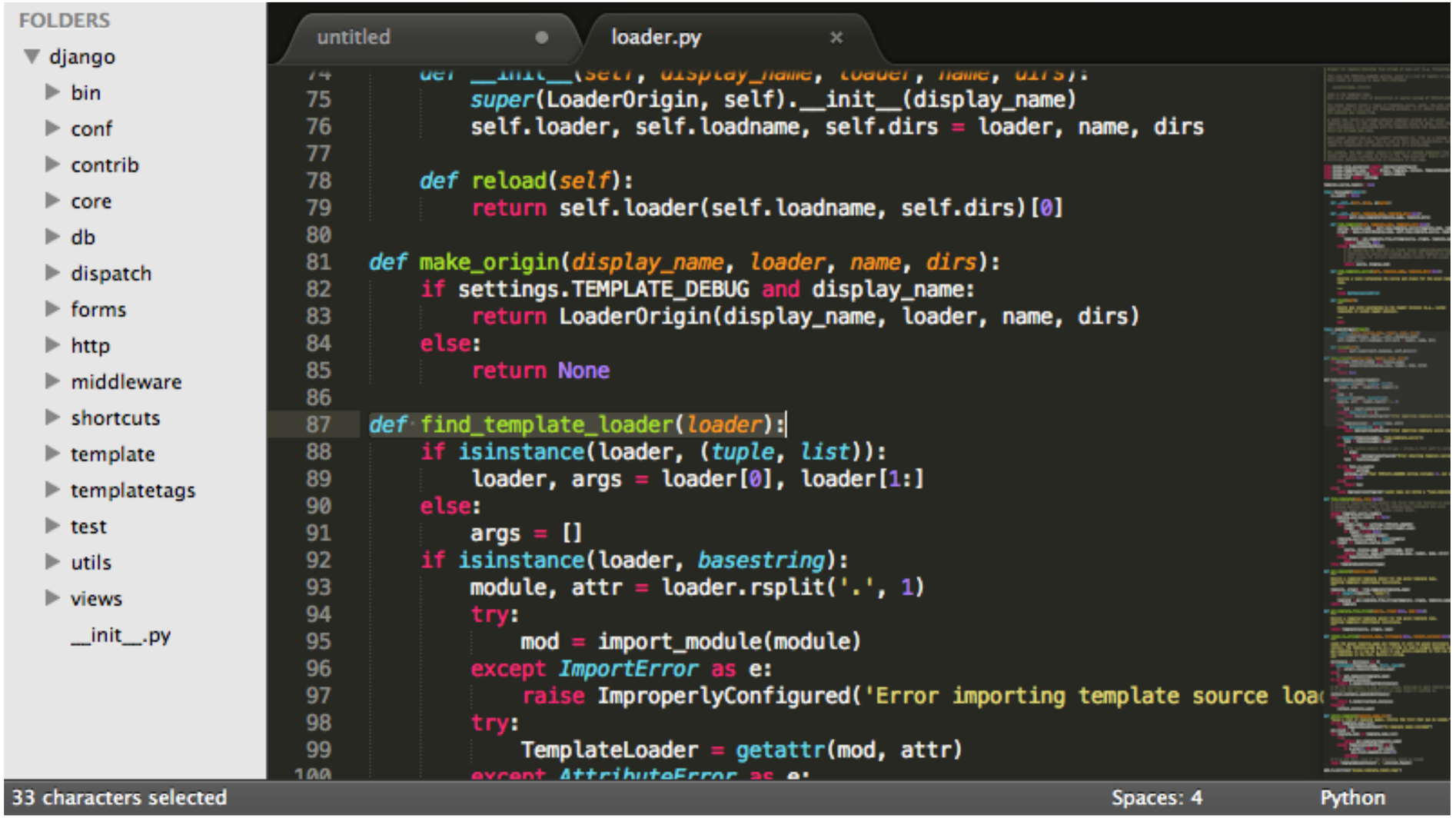
http://bit.ly/2x8xhC2

Questions

Long Live The Web

Intro to Sublime

Download Sublime here



What is Sublime?

- Sublime is a plain text/code editor. There are many code editors
- Other popular ones include Atom and Brackets
- It is not the same as Microsoft word!
- Fundamentally the same as plain text editor (textedit or notepad) but has color coding, indentation, and auto-finish to help us
- Pay attention to those things!
- Tutorial **here**

```
<!doctype html>
<html>
    <head>

    </head>

    <body>
        <h1>Hello world!
    </body>

</html>
```

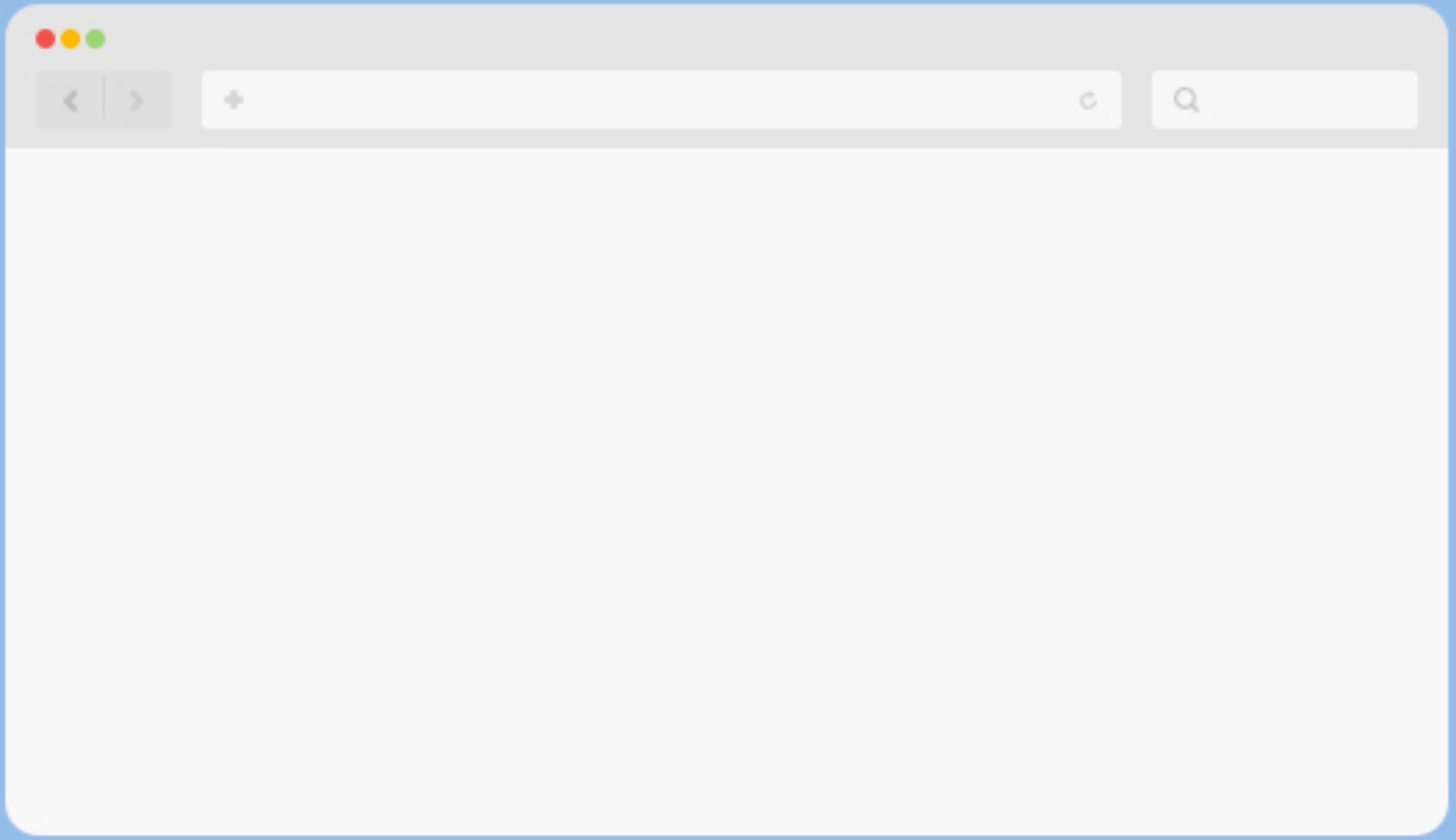
Starting project in Sublime

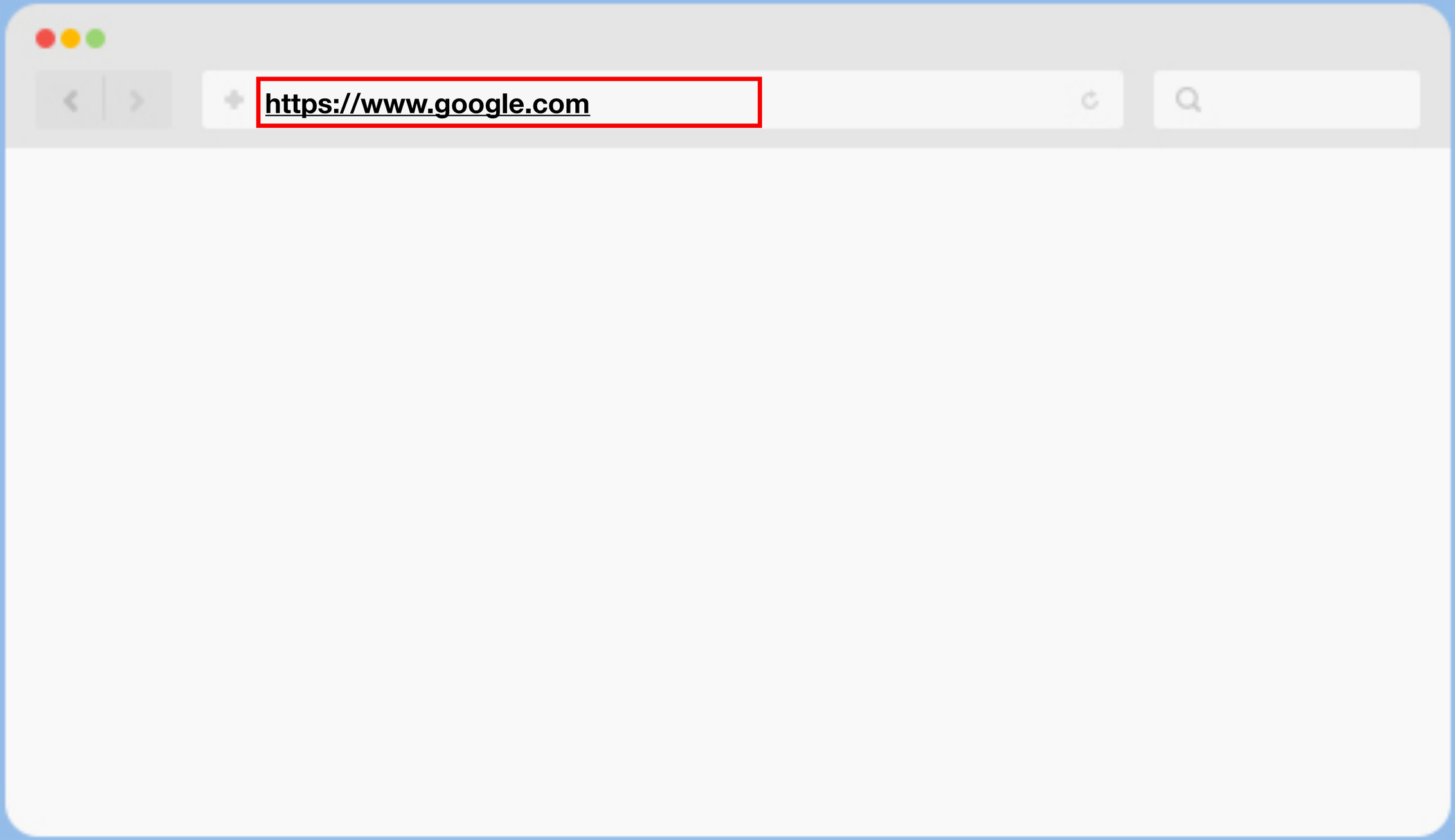
1. Option 1: Create a new index.html by going **File** > **New** and then saving that file as index.html

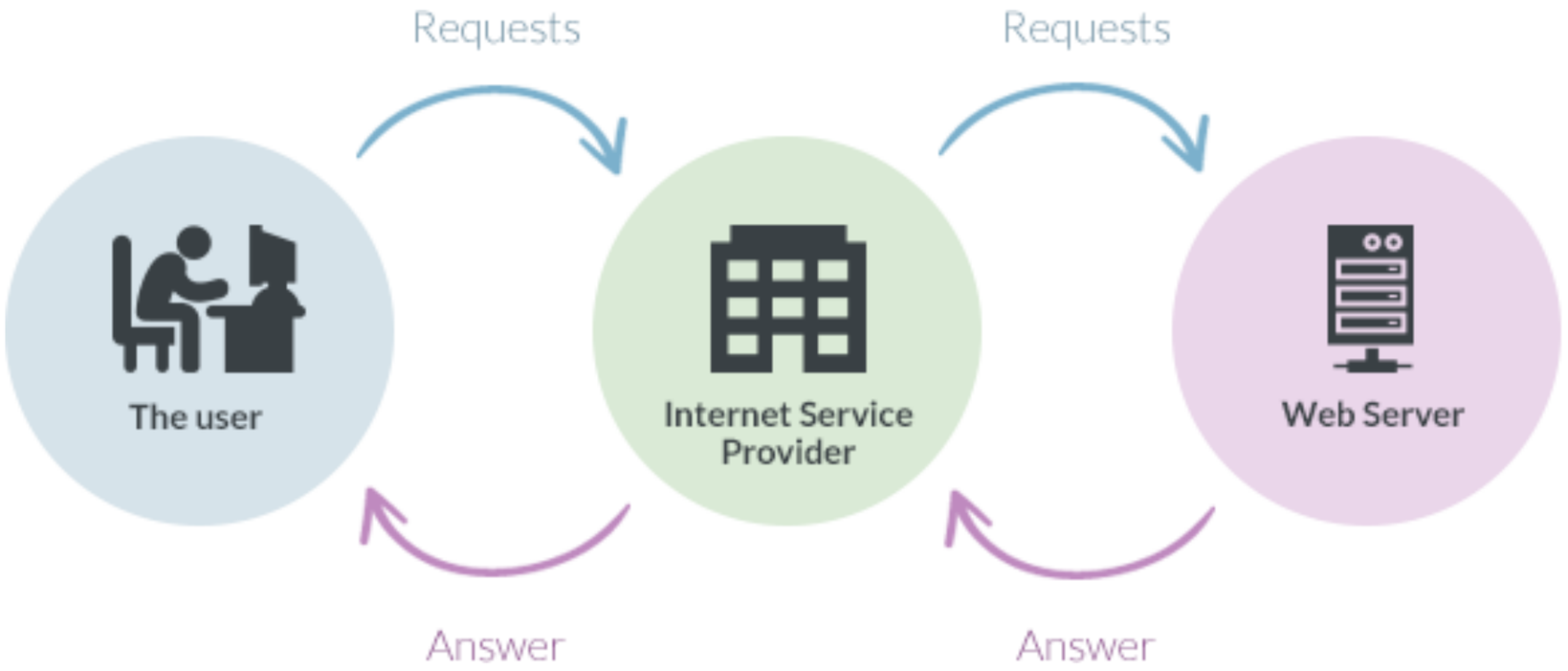
2. Option 2: If you're working from an example, download the folder. Then in Sublime, go to **File** > **Open** and work from there.

Web Overview

a collection of related web pages, including multimedia content, identified with a common domain name, and published on at least one web server




https://www.google.com


Requests
Requests
The user
Internet Service Provider
Web Server
Answer
Answer


HTML
CSS
JS

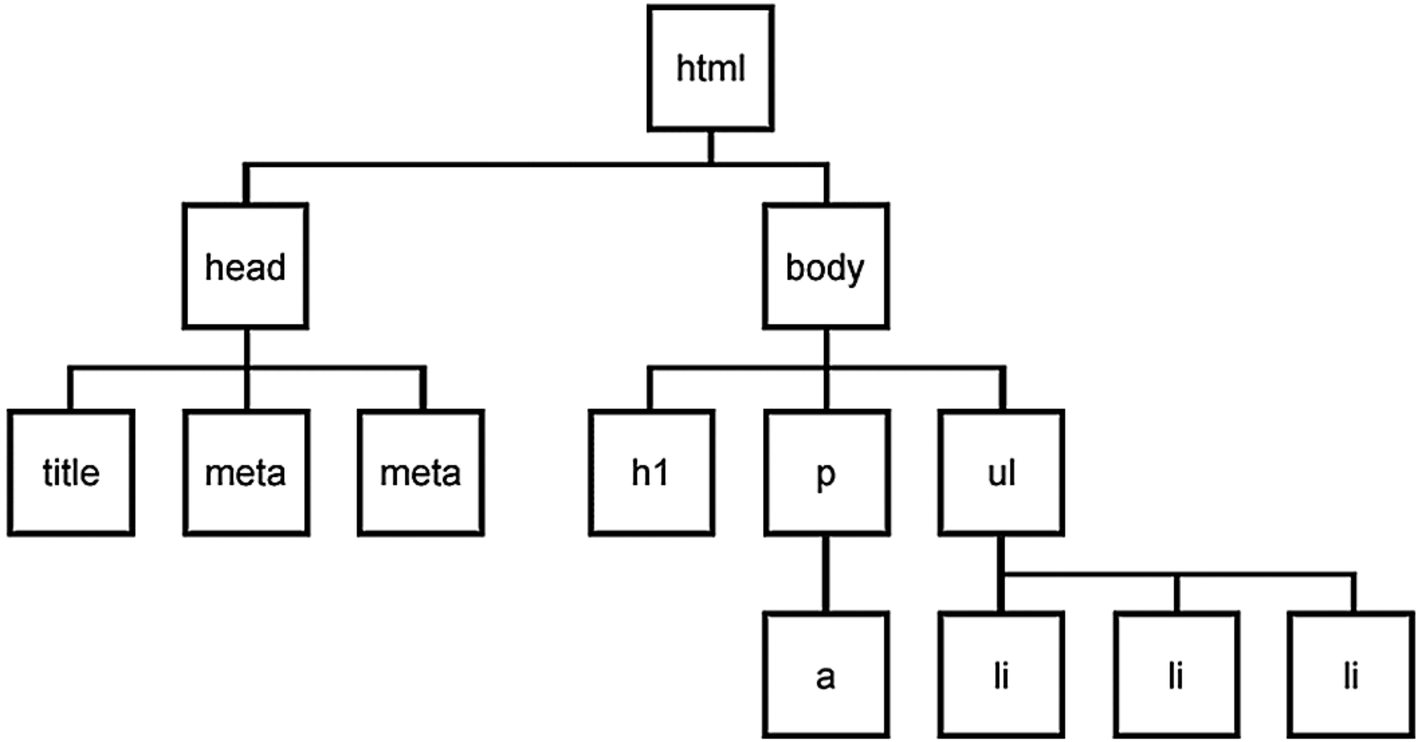

Web Page
HTML
Content &
Structure
Headings,
Paragraphs
Lists
CSS
Presentation
Font
Color
Background color
Border
JavaScript
Behavior
dynamic display
widgets
user iteraction
click to open a popup

Intro to HTML

What is HTML?

HTML is “Hypertext Markup Language”

- What is hypertext?
- What is a markup language?

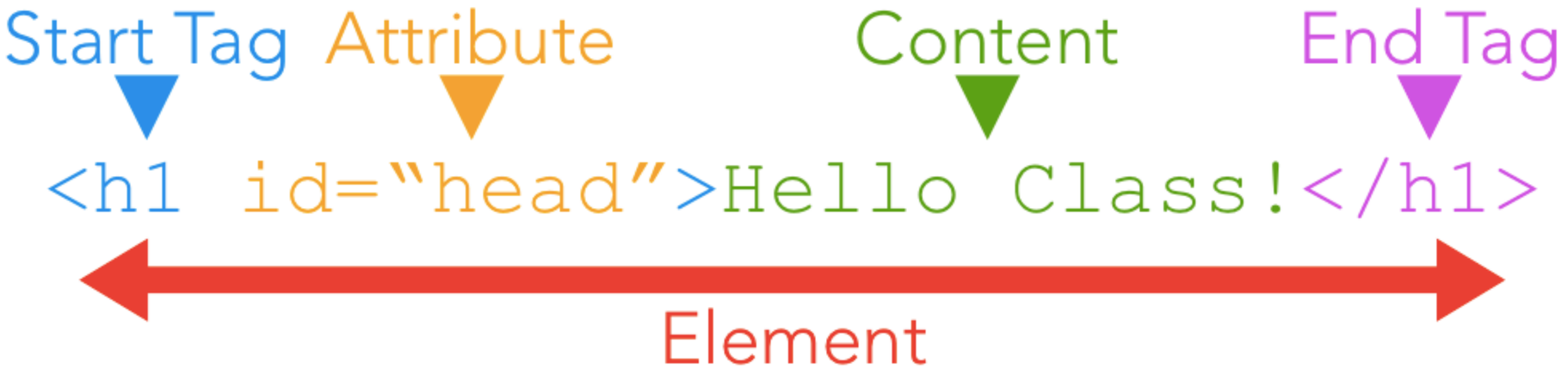

html
head
body
title
meta
meta
h1
p
ul
a
li
li
li

HTML Structure

HTML uses elements to describe the structure of pages

HTML Elements / Tags, Attributes, Content

- Elements and tags used interchangeably



Let’s make an HTML page

- Open a new file on a text editor
- Write doctype, html, head and body tags
  - don’t forget to indent!
  - need less than / greater than signs
- Save file as **index.html**

```
<!doctype html>
<html>
    <head>

    </head>

    <body>
        Hello world!
    </body>

</html>
```

What goes where?

- **Head** is everything that the browser/search engine/website needs to know
  - <title> for the name to appear at the top of your web browser
  - <meta> information for browser information
  - Loading style sheets and code from other places
- **Body** is everything you want to see on the page!
  - <p> paragraphs
  - Different elements: , <h1>, etc.
- Everything should be in the **head** or the **body**
  - May work fine now but may cause problems when it gets more difficult
- Don’t forget the **closing tag** </>!

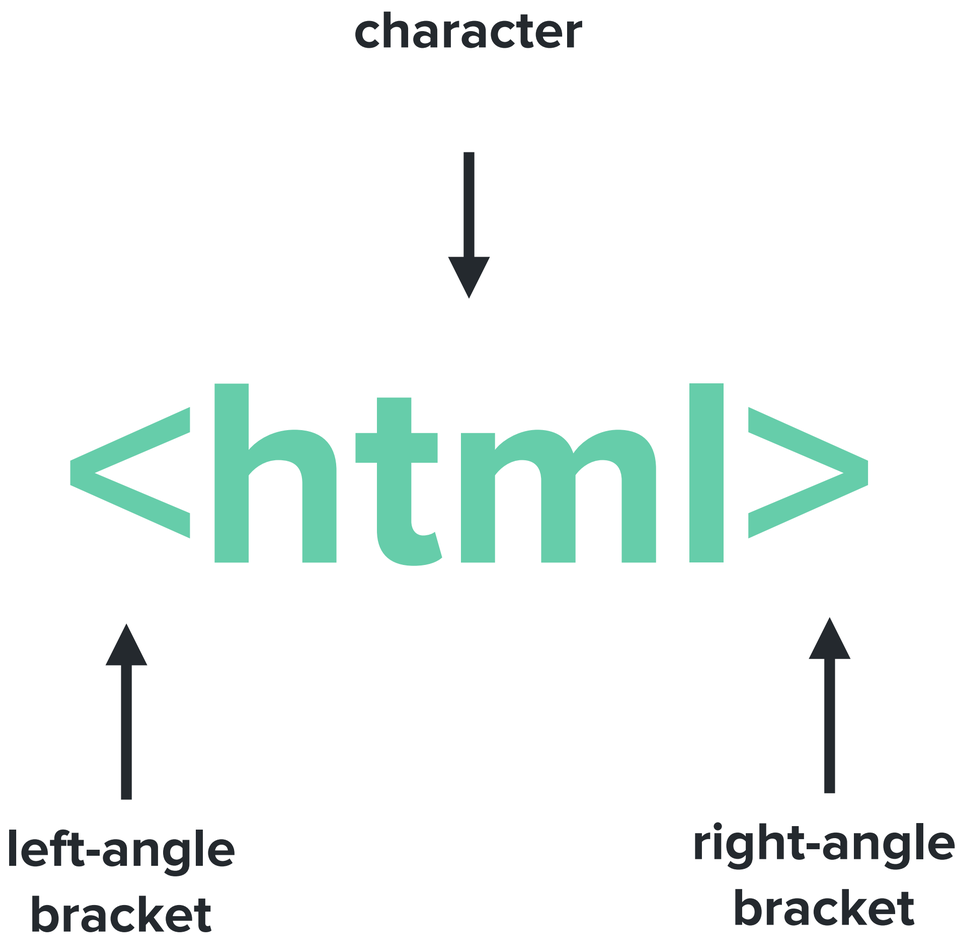
index.html

```
1   <!doctype html>
2   <html>
3       <head>
4           <title>First html exercise</title>
5           <!-- all information about the site -->
6       </head>
7       <body>
8           <!-- content and structure of a site -->
9       </body>
10  </html>
```

<html></html>

Opening tag

Closing tag


character
<html>
left-angle bracket
right-angle bracket

</html>

forward slash sign

Structural tags

- **doctype, HTML, head, body, div** are structure tags

```
<!doctype html>
<html>

<!--All necessary information goes here-->
<head>
    <title></title>
    <link rel="stylesheet" href="style.css" type="text/css" />
</head>

<!--Everything viewable on the page goes in the body -->
<body>

    <div>
        This is some information that will go somewhere.
    </div>

</body>

</html>
```

Text tags

- **h1, h2, h3, h4, h5, h6** are text tags for headings
- **p** is a tag for paragraphs
- **b** is for bold, **i** is for italics
- **ul, ol, li** are used for making lists
  - **ul:** unordered lists
  - **ol:** ordered lists
  - **li:** an individual list tag
- **
** will break to a new line

```
<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<h4>Heading 4</h4>
<h5>Heading 5</h5>
<h6>Heading 6</h6>
```

Links

- Links are written using the anchor tag, **<a>**
- Uses URL's (uniform resource locator) link to other websites, relative URL's for the same site, or linking to a specific part of a page
- Uses **blank** to open in a new window
- Follows the format:

```
<!-- link -->
<a href="https://www.fordham.edu/" target="_blank">Fordham University</a>
```

More on links

```
<!-- Another website, opens in new window -->
<a href="https://www.fordham.edu/" target="_blank">Fordham University</a>

<!-- Relative page on same website -->
<a href="../index.html">Homepage</a>

<!-- Specific part of this page -->
<a href="#bioSection">Ruta's bio</a>

<!-- Specific part of another page -->
<a href="../index.html #welcomeSection">Welcome!</a>
```

Images

- The **<img>** tag is for images, which can be on your local directory or on another webpage in the form of a URL.

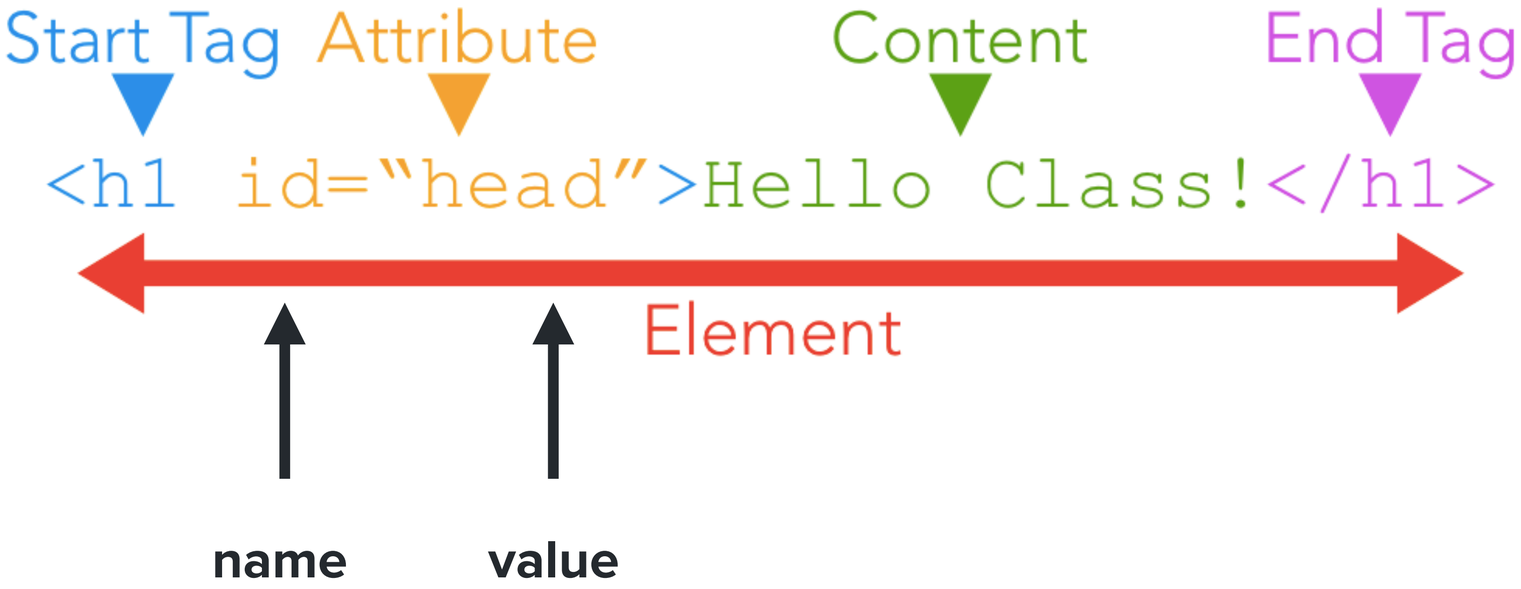
```
<!--An image on the local directory-->
<img src="images/superCuteDog.jpg" alt="Cutest dog" />

<!--Or with size specs -->
<img src="images/superCuteDog.jpg" alt="Cutest dog" width="400" height="300"/>

<!--Image from another site-->
<img src="http://cdn1-
www.dogtime.com/assets/uploads/2011/01/file_23262_entlebucher-mountain-dog-
460x290.jpg" alt="Not cutest dog" />
```

HTML Attributes

- Attributes provide additional information about the contents of an element
- Appear in an opening tag
- Made up of two parts: **name** and **value** and are separated by = sign
- Possible attributes: lang, id, class, etc. More can be found here.



HTML Comments

- You can write comments in your HTML to make notes to yourself or others without impacting your code
- To write a comment, use the following opening and closing brackets with your content in the middle:

  <!-- Write your content here! -->
- Use comments! When your code gets larger, you'll need to remember what is what
- I also need them for marking

HTML Structure Summary

FROM JOHN DUCKET “HTML AND CSS”

- HTML pages are text documents
- HTML uses tags (characters that sit inside angled brackets) to give the information they surround special meaning
- Tags are often referred to as elements
- Tags usually come in pairs. The opening tag denotes the start of a piece of content; the closing tag denotes the end
- Opening tags can carry attributes, which tell us more about the content of that element
- Attributes require a name and a value
- To learn HTML you need to know what tags are available for you to use, what they do, and where they can go

HTML text tags

Headings

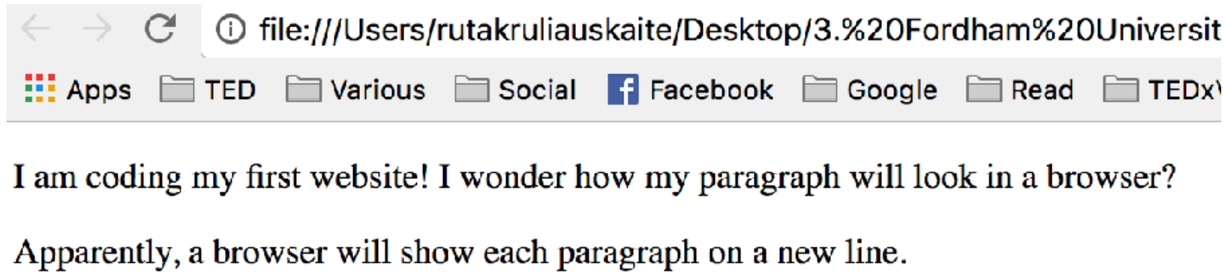
- **h1, h2, h3, h4, h5, h6** are text tags for headings
- Displayed in different sizes
- Size can be modified using CSS

```
<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<h4>Heading 4</h4>
<h5>Heading 5</h5>
<h6>Heading 6</h6>
```

Paragraphs

- Written using ** ** opening and closing tags

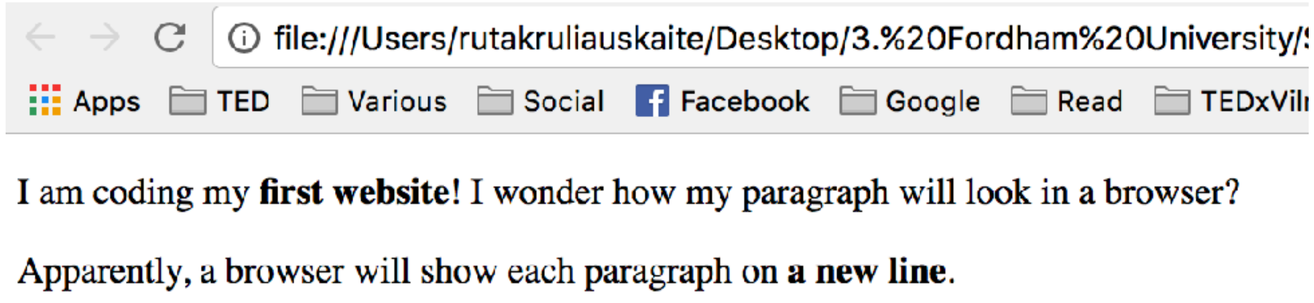
```
<p>
    I am coding my first website! I wonder
    how my paragraph will look in a browser?
</p>
<p>
    Apparently, a browser will show
    each paragraph on a new line.
</p>
```



bold

- Used to make characters appear **bold**
- Written using **** opening and closing tags

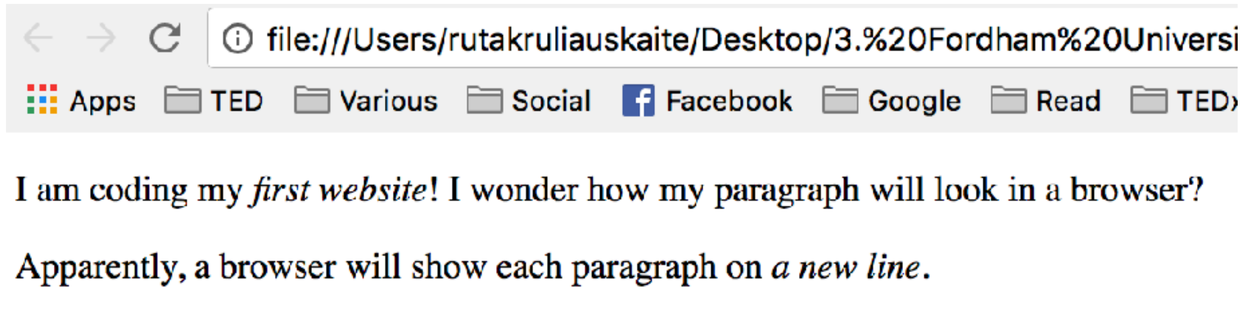
```
<p>
    I am coding my <b>first website</b>! I wonder
    how my paragraph will look in a browser?
</p>
<p>
    Apparently, a browser will show
    each paragraph on <b>a new line</b>.
</p>
```



italic

- Used to make characters appear *italic*
- Written using **** opening and closing tags

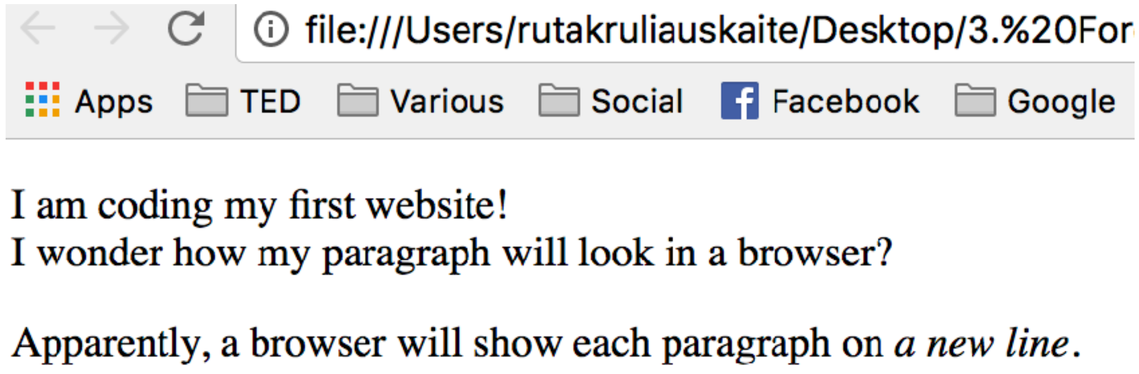
```
<p>
    I am coding my <i>first website</i>! I wonder
    how my paragraph will look in a browser?
</p>
<p>
    Apparently, a browser will show
    each paragraph on <i>a new line</i>.
</p>
```



Line breaks

- Used to make a break line in the middle of a paragraph
- Written using **
** tag (notice there's only one tag!)

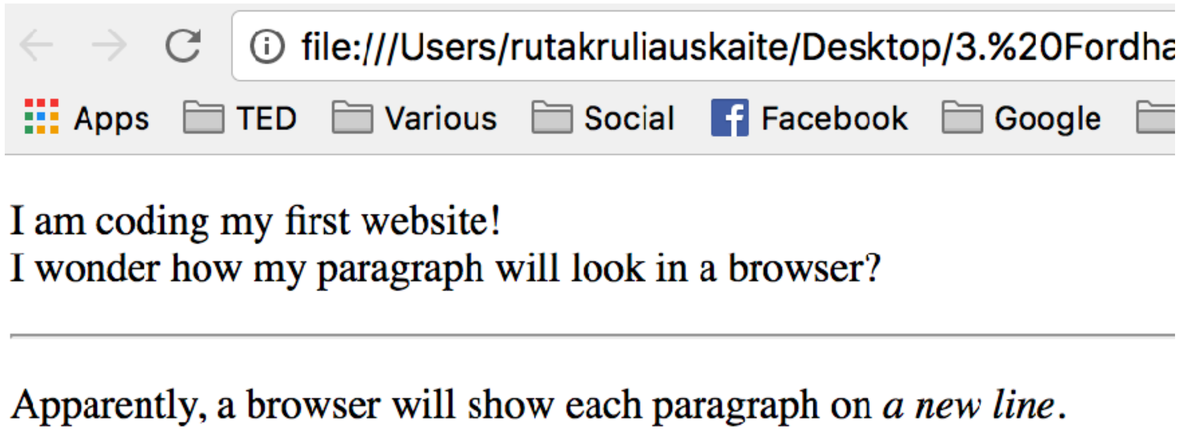
```
<p>
    I am coding my first website! <br /> I wonder
    how my paragraph will look in a browser?
</p>
<p>
    Apparently, a browser will show
    each paragraph on <i>a new line</i>.
</p>
```



Horizontal rules

- Used to create breaks between different sections
- Written using **<hr />** tag (notice there's only one tag!)

```
<p>
    I am coding my first website! <br /> I wonder
    how my paragraph will look in a browser?
</p>
<hr />
<p>
    Apparently, a browser will show
    each paragraph on <i>a new line</i>.
</p>
```



 <hr />

A note on accessibility

- HTML does a good job being accessible for screen readers
- Screen readers describe what's on the web for visually impaired
- It's important to be familiar with accessibility tags and use them for websites that are going to go live
- **** vs. **<i>**
- **** vs. **<b>**
- **<title>** text in img tags

HTML Text Summary

FROM JOHN DUCKET “HTML AND CSS”

- HTML elements are used to describe the structure of the page (e.g. headings, subheadings, paragraphs)
- They also provide semantic information (e.g. where emphasis should be placed, the definition of any acronyms used, when given text is a quotation)
- *Note: We can use HTML for bold and italic but will eventually want to do that in CSS*

HTML Lists

Ordered vs. Unordered Lists

- HTML has two kinds of lists: ordered and unordered lists
- **Unordered lists use bullet points**
  - Like this!
  - They use the tag **<ul>**
- **Ordered lists use numbers (1, 2, 3, 4)**
  - Use this when your list has a specific order
  - They use the tag **<ol>**
- Once you've declared which kind of list you're using with the appropriate tag, each item in the list will use the **<li>** tag, which stands for list item

Ordered Lists = Order matters

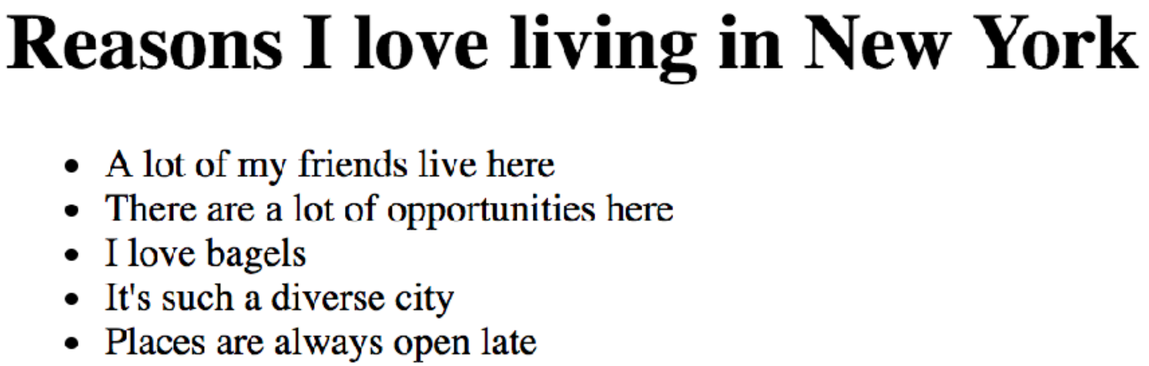
```
<!-- ordered list -->
<h1>Directions to get to the subway</h1>
<ol>
    <li>Walk three blocks uptown</li>
    <li>Once you get to the bodega, make a right</li>
    <li>Walk till you get to 8th Avenue</li>
    <li>Take A train towards Brooklyn</li>
</ol>
```

Directions to get to the subway

1. Walk three blocks uptown
2. Once you get to the bodega, make a right
3. Walk till you get to 8th Avenue
4. Take A train towards Brooklyn

Unordered Lists = Order doesn't matter

```
<!-- unordered list -->
<h1>Reasons I love living in New York</h1>
<ul>
    <li>A lot of my friends live here</li>
    <li>There are a lot of opportunities here</li>
    <li>I love bagels</li>
    <li>It's such a diverse city</li>
    <li>Places are always open late</li>
</ul>
```



Nested Lists = Lists within Lists

```
<!-- nested lists -->
<h1>Plan for a week</h1>
<ul>
    <li>Monday
        <ol>
            <li>Labor Day</li>
            <li>Day off</li>
        </ol>
    </li>
    <li>Tuesday
        <ol>
            <li>Catch up on emails</li>
            <li>Interviews</li>
        </ol>
    </li>
    <li>Wednesday
        <ol>
            <li>Finish prepare for class</li>
            <li>Class</li>
        </ol>
    </li>
```

Plan for a week

- Monday
    1. Labor Day
    2. Day off
- Tuesday
    1. Catch up on emails
    2. Interviews
- Wednesday
    1. Finish prepare for class
    2. Class
- Thursday
    1. Another class
- Friday
    1. Finish emails
    2. Long weekend to start!

Definition lists = terms & definitions

```
<!-- definition lists -->
<dl>
    <!-- term1 -->
    <dt>Sublime</dt>
    <dd>Sublime is a plain text editor.</dd>

    <!-- term2 -->
    <dt>Website</dt>
    <dd>A collection of related web pages,<br>
        identified with a common domain name, <br>
        and published on a web server.</dd>
</dl>
```

Sublime
: Sublime is a plain text editor.

Website
: A collection of related web pages, identified with a common domain name, and published on a web server.

HTML Lists Summary

FROM JOHN DUCKET “HTML AND CSS”

- There are three types of HTML lists: ordered, unordered, and definition
- Ordered lists use numbers
- Unordered lists use bullets
- Definition lists are used to define terminology
- Lists can be nested inside one another

Exercise

HTML = Structure

- Exercise to recreate structure from a Word document to HTML page
- Use tags: h1-6, p, ul, ol, b, i, br, hr
- 15min

TEXT FROM TED.COM

What is TED?

TED is a nonprofit devoted to spreading ideas, usually in the form of short, powerful talks (18 minutes or less). TED began in 1984 as a conference where **Technology**, **Entertainment** and **Design** converged, and today covers almost all topics — from science to business to global issues — in more than 100 languages. Meanwhile, independently run TEDx events help share ideas in communities around the world.

TED is owned by a nonprofit, nonpartisan foundation. Our agenda is to make great ideas accessible and spark conversation.

You might also want to learn about:

- History of TED
- How TED works
- What is TEDx?
- People behind TED

The 3 most viewed TED Talks are:

1. Ken Robinson: Do Schools Kill Creativity
    - 46.8m views
2. Amy Cuddy: Your body language may shape who you are
    - 42.7m views
3. Simon Sinek: How great leaders inspire action
    - 33.8m views

For next class

Homework for Thursday class

1. Finish exercise
2. Review the slides
3. Sign up for Monday's web review presentations
4. Finish intros and comments on readings on Slack