Goals:

1. Identify the elements of a webpage
2. Identify and use static HTML code
3. Debug basic HTML code

CS Standard: Implement a program using a combination of student-defined and third-party functions to organize the computation.

Work Time: Students will be following the tutorial and examples provided then they will code an ‘About me” me on their own using static HTML elements practiced here.

ANATOMY OF A WEBSITE

Website = HTML + CSS + JavaScript

Think of it like this…

Nouns Adjectives Verbs

HTML

Stands for **H**yper**t**ext **M**arkup **L**anguage

Creates the structure for *all* web pages on the internet

A file ending in .html lets your browser know that you are coding in html

```
<!DOCTYPE html>
<html style="height:100%;">
<head>
    <meta http-equiv="Content-Type" content="text/html; charset=utf-8"/>
    <meta http-equiv="X-UA-Compatible" content="IE=Edge"/>
    <title>Untitled</title>
<!--Adobe Edge Runtime-->
    <script type="text/javascript" charset="utf-8" src="http://animate.ado
    <style>
        .edgeLoad-EDGE-113439313 { visibility:hidden; }
    </style>
    <script>
        var link1="%reference%@%eventHTML1%";
        var link2="%reference%@%eventHTML2%";
        AdobeEdge.loadComposition('http://banners.adfox.ru/000000/adfox/00
        scaleToFit: "none",
        centerStage: "none",
        minW: "0px",
        maxW: "undefined",
        width: "100%",
        height: "100%"
        }, {"dom":{}}, {"dom":{}});
    </script>
<!--Adobe Edge Runtime End-->
</head>
<body style="margin:0;padding:0;height:100%;">
    <div id="Stage" class="EDGE-113439313"></div>
</body>
</html>
```

HTML BOILERPLATE

A **boilerplate** is a section of code that can be reused in different places.

An HTML boilerplate is the foundation of your website. It is also called an HTML shell.

Whenever you create a new HTML document, you will start with the same snippet of code to start structuring your webpage.

index.html

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Blog</title>
    </head>
    <body>

    </body>
</html>
```

HTML BOILERPLATE EXPLAINED

<!DOCTYPE> element tells your browser which type of document to expect and how to render code properly.

<html> element is the root element of an HTML page.

<head> element contains information such as title, scripts, styles, and any meta information your website needs.

<body> element contains all of the elements that will be used to structure the webpage and visible page content.

<title> element contains the text that will appear on the tab for the webpage on the browser.

index.html

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Blog</title>
    </head>
    <body>

    </body>
</html>
```

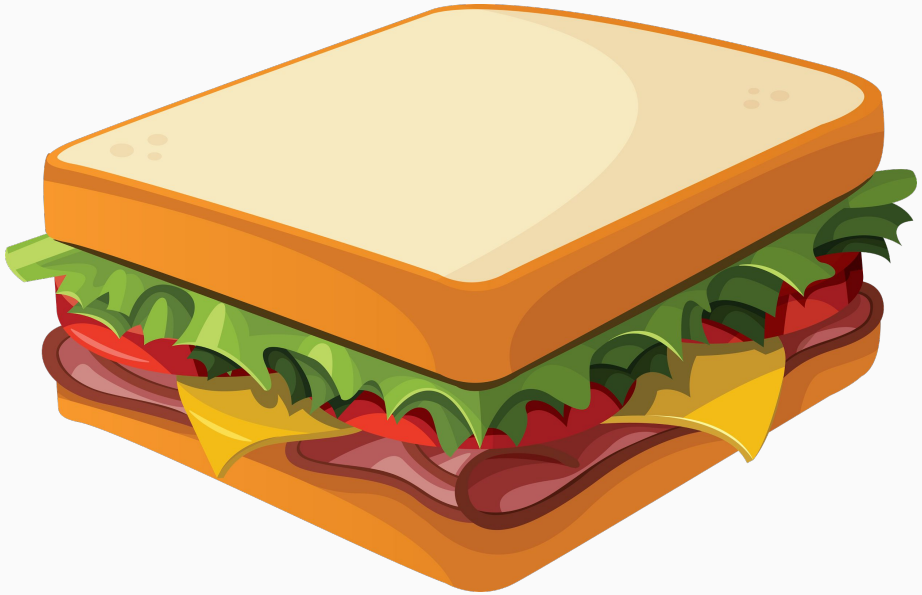
HTML SYNTAX

THE ENGLISH LANGUAGE AND HTML SYNTAX

In English, the order of our words and the punctuation we use makes a difference. This is true in coding too!

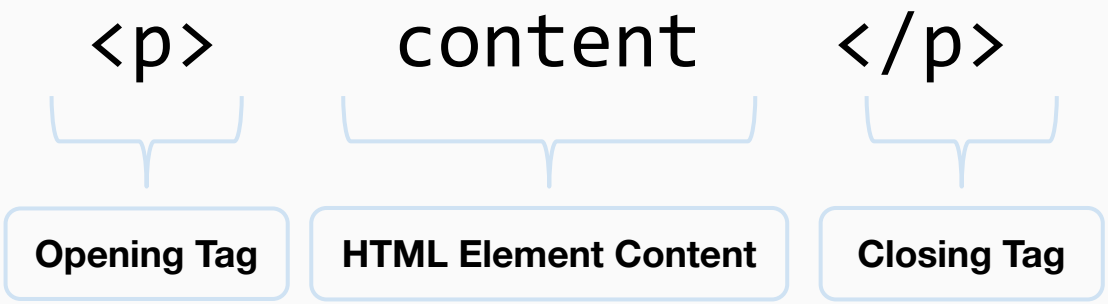
Syntax is the set of rules that make it easier for us to understand each other when we speak or write. These rules usually include word order and punctuation.

Syntax for HTML elements is kind of like making a sandwich. Order is important! You don't want lettuce outside the bread.



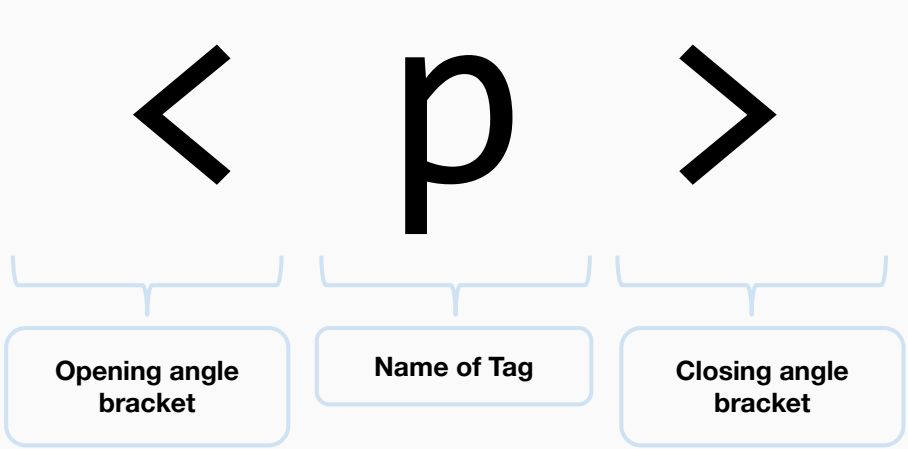
SYNTAX FOR HTML ELEMENTS & TAGS

An HTML element usually consists of a start tag and an end tag,
with the content inserted in between.

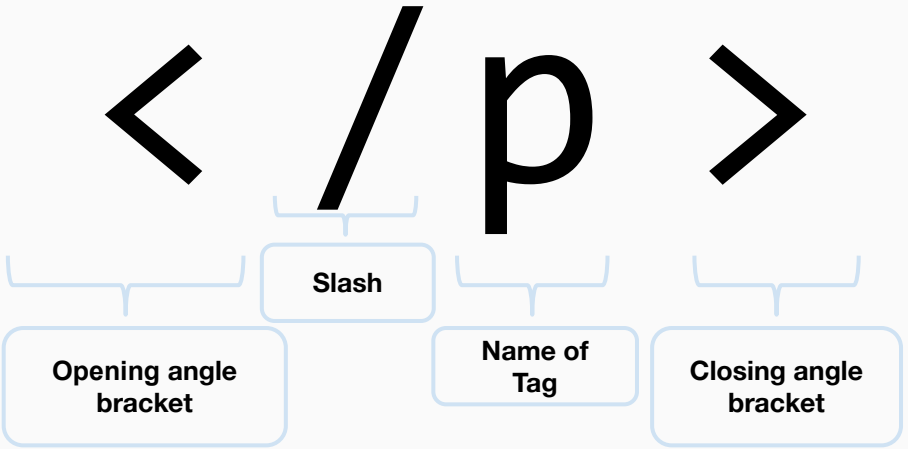


OPENING AND CLOSING ELEMENTS & TAGS

HTML tags are created with angle brackets. We wrap the tag name in these angle brackets. This slide shows an opening tag and closing for the paragraph “p” element . When you open a tag, you also need to close it.



OPENING TAGS



CLOSING TAGS

SYNTAX HELPS WRITE CLEAN CODE

Usually, each new element starts on its own line. There are a few exceptions. We'll learn more about those during the guided practice.

All HTML must be inside an **<html>** tag.

All content on the page is inside the **<body>** tag.

```
<html>
    <body>
        <p>content</p>
    </body>
</html>
```

HTML ATTRIBUTES W/ ANCHOR TAGS

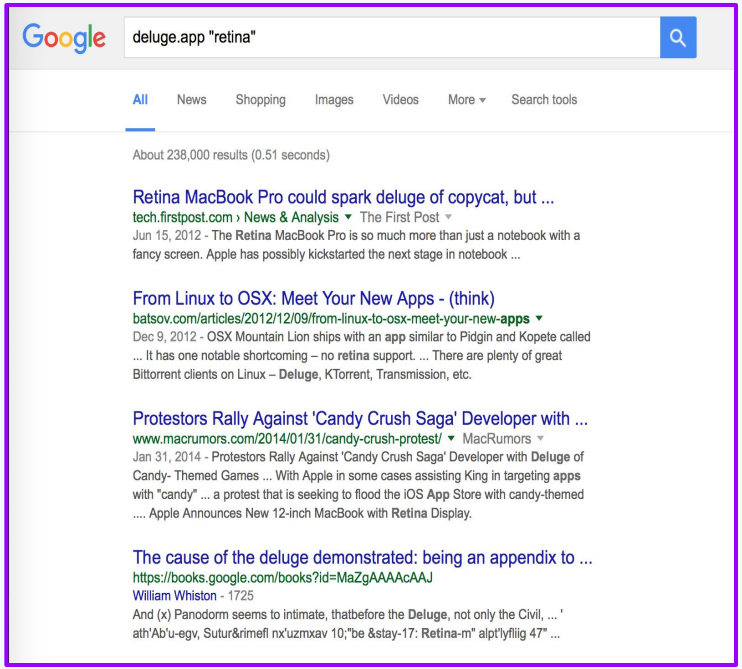
LINKS & ANCHOR TAGS

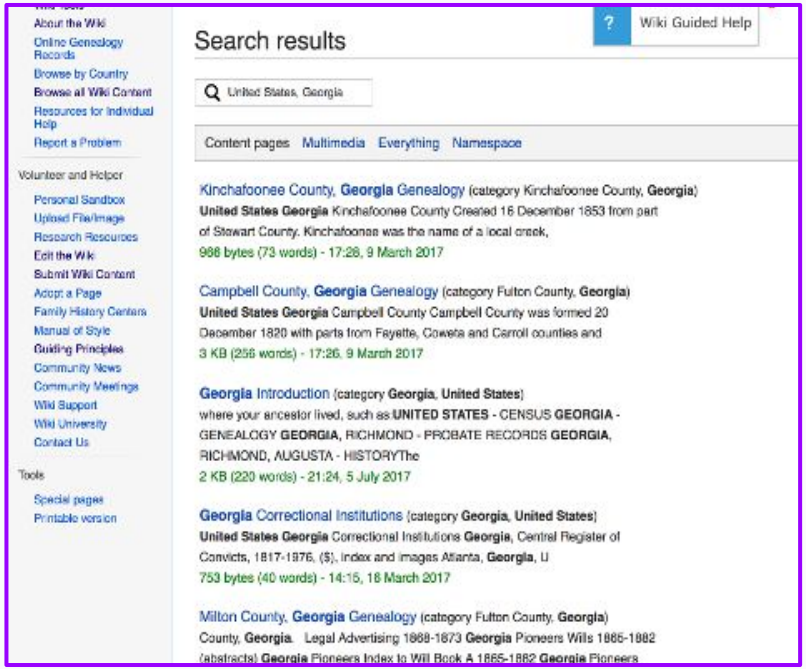
We're going to learn how to create links to other pages using anchor tags.

The **anchor tag <a>** allows us to move around on the web.
You can use anchor tags to jump around on a web page, a website, to link to files on your computer, and to create links to other websites.

LINKS ON THE WEB

What are some clues that something is a link on the web?

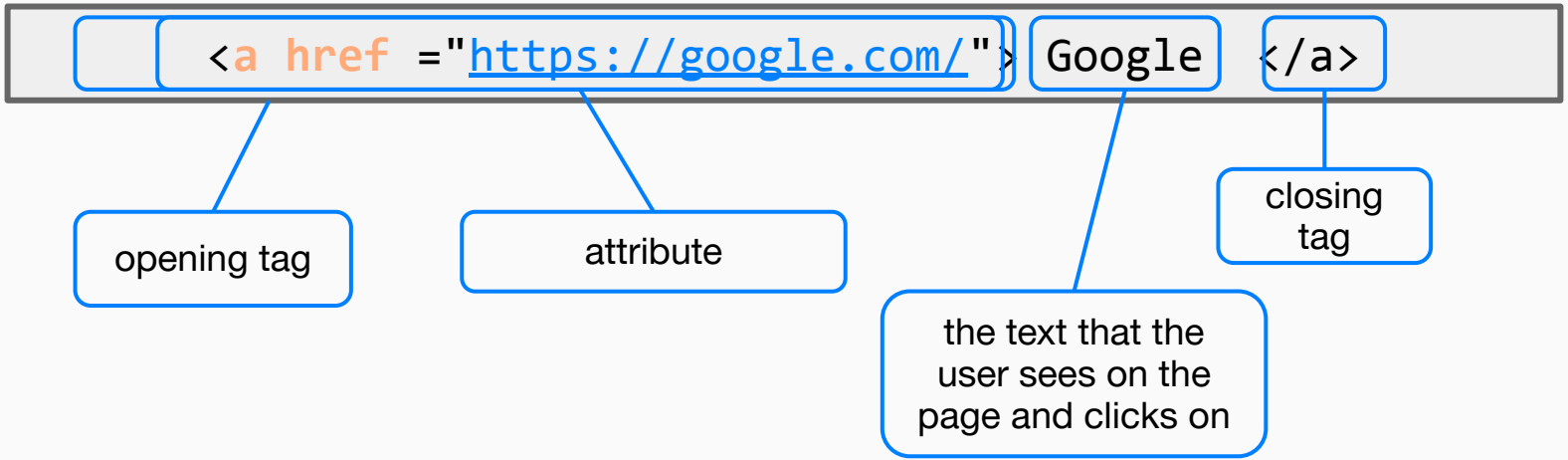




HTML ATTRIBUTES

All HTML elements can have **attributes. Attributes** provide additional information about an element. Attributes are always specified in the opening tag. Attributes usually come in name/value pairs like: name="value".

Anchor tags have an **href** attribute. This tells the browser where the link lives on the internet.



href Attribute

Think of the **href** attribute like the “To:” section on an envelope. The value of this attribute explains where to go, just like an address.

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

Shake Shack Example

What text will the user see highlighted in blue on the webpage?

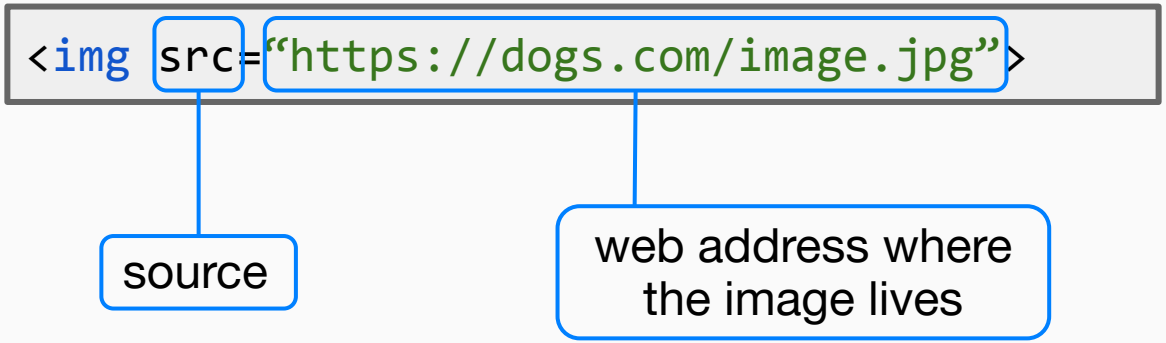
Where will the user go when they click the highlighted text?

```
<a href="https://www.shakeshack.com">Shake Shack</a>
```

HTML ATTRIBUTES W/ IMAGE TAGS

<IMG> TAG & SRC ATTRIBUTE

An **<img> tag** lets you put an image on your website. Image tags have a source attribute **(src)** that tells the browser where the image lives on the internet.



href Attribute

Think of the **src attribute** like the “From:” section on an envelope.

```
<img src="https://dogs.com/image.jpg">
```

DIFFERENCE BETWEEN ANCHOR TAGS & IMG TAGS

There are three key differences between the image tag and anchor tag.

- Uses **src** attribute
- The tag is **self-closing**.
- No content for an **<img>**. The image itself is the content!

```
<a href="https://google.com">Go to Google</a>
```

```
<img src="https://i.ytimg.com/hqdefault.jpg">
```

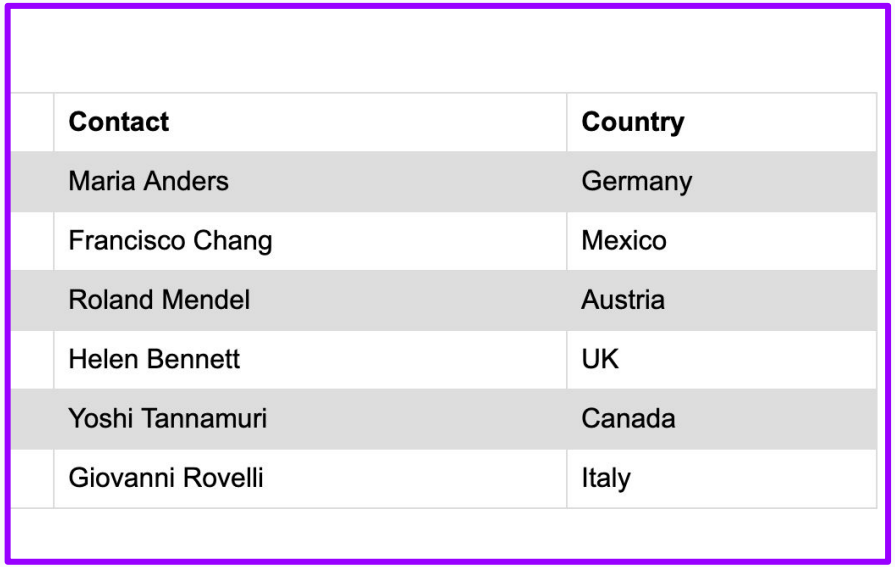
TABLES & LISTS

USE OF TABLES IN HTML

Tables are used on websites for two major purposes:

- Arranging information
- Creating a page layout

Using tables to divide the page into different sections is an extremely powerful tool. Almost all major sites on the web are using invisible tables to layout the pages.



	Contact	Country
	Maria Anders	Germany
	Francisco Chang	Mexico
	Roland Mendel	Austria
	Helen Bennett	UK
	Yoshi Tannamuri	Canada
	Giovanni Rovelli	Italy

<TABLE> Tag

Tables are defined by the <table> tag. To begin building a table., you would nest the <table> tag in the <body> of your HTML page.

```
<body>

    <table>

    </table>

</body>
```

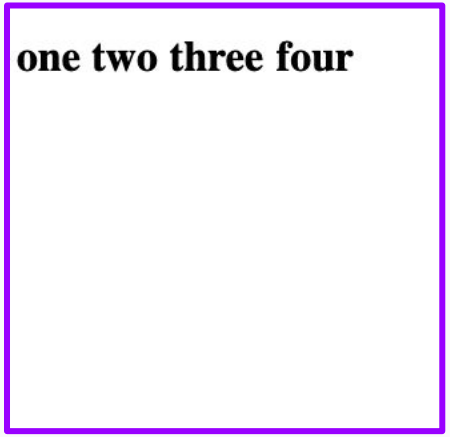
The above code does not make a table functional because you have not added the rows, columns, and content, but it provides the basis for a table.

Adding Column Headers To Our Tables

In order for the columns in our tables to have their own headers, we use the **<th>** tag to define them and nest them into our <table> tag.

For example, if we wanted to add four columns and name the headers *one, two, three and four,* we would add the following:

```
<body>
        <table>
        <th> one </th>
        <th> two </th>
        <th> three </th>
        <th> four </th>
        </table>
</body>
```

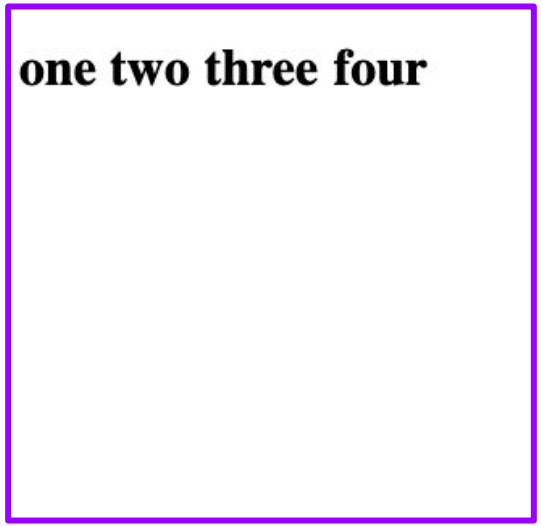


By default, table headings are bold and centered.

Adding Our First Row To Our Tables

In order for us to establish rows in our tables, we use the **<tr>** tag to define them. In the previous example, we established our first row for the column headers. This means we need to wrap them into the **<tr>** tag as pictured below.

```
<body>
        <table>
        <tr>
                <th> one </th>
          <th> two </th>
          <th> three </th>
          <th> four </th>
        </tr>
        </table>
</body>
```



Adding Additional Rows and Data for Cells

In order for us to add additional rows to our table, we continue to reuse the **<tr>** tag to continue to define each of the rows.

However, to populate each row cell with data, we nest that cell in **<td>** tags in order for them to appear in their respective column. The <td> elements are the data containers of the table.

For example, let's say we wanted to add two rows to our tables and make sure that each of the columns in the row had content, we'd model the code as follows:

```
<body>
<table>
        <tr>
                <th> one </th>
          <th> two </th>
          <th> three </th>
          <th> four </th>
        </tr>
        <tr>
                <td> row 1-1 </td>
          <td> row 2-2 </td>
          <td> row 3-3 </td>
          <td> row 4-4 </td>
        </tr>
        <tr>
                <td> row 1-1 </td>
          <td> row 2-2 </td>
          <td> row 3-3 </td>
          <td> row 4-4 </td>
                </tr>
        </table>
</body>
```

one	two	three	four
row 1-1	row 2-2	row 3-3	row 4-4
row 1-1	row 2-2	row 3-3	row 4-4

Naming Your Table

You can use the **<caption>** tag to give your table a title.

The <caption> tag **must be** immediately placed after the opening <table> tag.

For example, if we wanted to name this table *Test Table*, we would include a <caption> tag as follows:

Test Table

one	two	three	four
row 1-1	row 2-2	row 3-3	row 4-4
row 1-1	row 2-2	row 3-3	row 4-4

```
<body>
<table>
<caption> Test Table</caption>
        <tr>
                <th> one </th>
          <th> two </th>
          <th> three </th>
          <th> four </th>
        </tr>
        <tr>
                <td> row 1-1 </td>
          <td> row 2-2 </td>
          <td> row 3-3 </td>
          <td> row 4-4 </td>
        </tr>
        <tr>
                <td> row 1-1 </td>
          <td> row 2-2 </td>
          <td> row 3-3 </td>
          <td> row 4-4 </td>
        </tr>
        </table>
</body>
```

USE OF LISTS IN HTML

Similarly to tables, lists are used on websites to arrange information. In HTML, you can make two types of lists:

- Unordered lists: Lists that have no chronological order where list items are defined by bullet points
- Ordered lists: Lists that follow a chronological order where list items are defined by numbers

 and <li> ORDERED LISTS

<ol> and **<li>** tags define ordered lists. Ordered lists live within the **<body>** of an HTML document.

<ol> elements tells the HTML page that an ordered list is about to be developed.

<li> are all of the items you want listed.

As you can see to the right, this code allows the items you list to be named in chronological order.

```
<ol>
  <li>Hello!</li>
  <li>Goodbye!</li>
  <li>So long!</li>
  <li>Hola!</li>
</ol>
```

1. Hello!
2. Goodbye!
3. So long!
4. Hola!

 and <li> UNORDERED LISTS

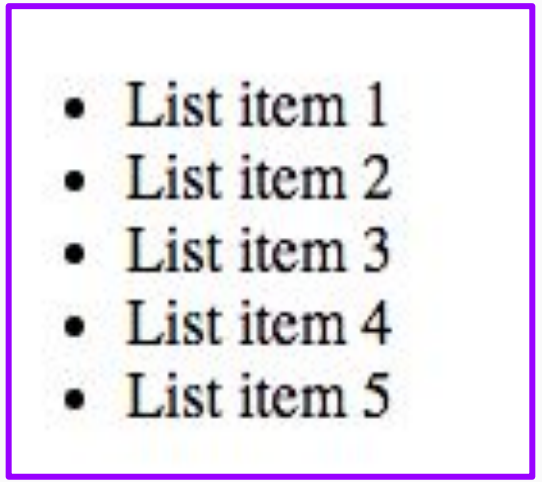
<ul> and **<li>** tags define unordered lists. Unordered lists live within the **<body>** of an HTML document.

<ul> elements tells the HTML page that an unordered list is about to be developed.

<li> are all of the items you want listed.

As you can see to the right, this code allows the items you list to be named in bullet point format.

```
<ul>
  <li>List item 1</li>
  <li>List item 2</li>
  <li>List item 3</li>
  <li>List item 4/li>
  <li>List item 5</li>
</ul>
```



WHAT DO I NEED TO MAKE THIS TASK?

1. Repl.it
2. HTML
3. Text
4. Images
5. Links **(to a website!)**