HTML Tutorials:

**Introduction to Basic HTML & HTML5**

HTML, or HyperText Markup Language, is a markup language used to describe the structure of a web page. It uses a special syntax or notation to organize and give information about the page to the browser. Elements usually have opening and closing tags that surround and give meaning to content. For example, there are different tag options to place around text to show whether it is a heading, a paragraph, or a list.

For example:

<h1>Top level heading: Maybe a page title</h1>

<p>A paragraph of text. Some information we would like to communicate to the viewer. This can be as long or short as we would like.</p>

<ol>

<li>Number one on the list</li>

<li>Number two</li>

<li>A third item</li>

</ol>

Becomes:

**Top level heading: Maybe a page title**

A paragraph of text. Some information we would like to communicate to the user. This can be as long or short as we would like.

1. Number one on the list
2. Number two
3. A third item

The HyperText part of HTML comes from the early days of the web and its original use case. Pages usually contained static documents that contained references to other documents. These references contained hypertext links used by the browser to navigate to the reference document so the user could read the reference document without having to manually search for it.

As web pages and web applications grow more complex, the W3 Consortium updates the HTML specification to ensure that a webpage can be shown reliably on any browser. The latest version of HTML is HTML5.

1. **H1 tag**

First, you'll start by building a simple web page using HTML. You can edit code in your code editor, which is embedded into this web page.

Do you see the code in your code editor that says <h1>Hello</h1>? That's an HTML element.

Most HTML elements have an opening tag and a closing tag.

Opening tags look like this:

<h1>

Closing tags look like this:

</h1>

The only difference between opening and closing tags is the forward slash after the opening bracket of a closing tag.

Code: <h1>Hello World</h1>

1. **H2 tag:**

The h2 element you will be adding in this step will add a level two heading to the web page.

This element tells the browser about the structure of your website. h1 elements are often used for main headings, while h2 elements are generally used for subheadings. There are also h3, h4, h5 and h6 elements to indicate different levels of subheadings.

**Code:** <h1>Hello World</h1>

<h2>Cat Photo App</h2>

1. **P tag:**

p elements are the preferred element for paragraph text on websites. p is short for "paragraph".

You can create a paragraph element like this:

<p>I'm a p tag!</p>

**Code:** <p> Hello Paragraph</p>

1. **Uncomment HTML**

Commenting is a way that you can leave comments for other developers within your code without affecting the resulting output that is displayed to the end user.

Commenting is also a convenient way to make code inactive without having to delete it entirely.

**Comments in HTML start with <!-- and end with a -->**

1. **Basics of HTML5:**

HTML5 introduces more descriptive HTML tags. These include main, header, footer, nav, video, article, section and others.

These tags give a descriptive structure to your HTML, make your HTML easier to read, and help with Search Engine Optimization (SEO) and accessibility. The main HTML5 tag helps search engines and other developers find the main content of your page.

Example usage, a main element with two child elements nested inside it:

**Main tag:**

<main>

<h1>Hello World</h1>

<p>Hello Paragraph</p>

</main>

**Code:**

<h2>CatPhotoApp</h2>

<main>

<p>Kitty ipsum dolor sit amet, shed everywhere shed everywhere stretching attack your ankles chase the red dot, hairball run catnip eat the grass sniff.</p>

<p>

  Purr jump eat the grass

</p>

</main>

**Output:**

## CatPhotoApp

Kitty ipsum dolor sit amet, shed everywhere shed everywhere stretching attack your ankles chase the red dot, hairball run catnip eat the grass sniff.

Purr jump eat the grass rip the couch scratched sunbathe, shed everywhere rip the couch sleep in the sink fluffy fur catnip scratched.

1. **Linking**

a (*anchor*) elements can also be used to create internal links to jump to different sections within a webpage.

To create an internal link, you assign a link's href attribute to a hash symbol # plus the value of the id attribute for the element that you want to internally link to, usually further down the page. You then need to add the same id attribute to the element you are linking to. An id is an attribute that uniquely describes an element.

Below is an example of an internal anchor link and its target element:

<a href="#contacts-header">Contacts</a>

...

<h2 id="contacts-header">Contacts</h2>

When users click the Contacts link, they'll be taken to the section of the webpage with the **Contacts** header element.

<style>

  .penguin {

    --penguin-skin: gray;

    position: relative;

    margin: auto;

    display: block;

    margin-top: 5%;

    width: 300px;

    height: 300px;

  }

  .penguin-top {

    top: 10%;

    left: 25%;

    /\* Change code below this line \*/

    background: black;

    /\* Change code above this line \*/

    width: 50%;

    height: 45%;

    border-radius: 70% 70% 60% 60%;

  }

  .penguin-bottom {

    top: 40%;

    left: 23.5%;

    /\* Change code below this line \*/

    background: black;

    /\* Change code above this line \*/

    width: 53%;

    height: 45%;

    border-radius: 70% 70% 100% 100%;

  }

  .right-hand {

    top: 0%;

    left: -5%;

    /\* Change code below this line \*/

    background: black;

    /\* Change code above this line \*/

    width: 30%;

    height: 60%;

    border-radius: 30% 30% 120% 30%;

    transform: rotate(45deg);

    z-index: -1;

  }

  .left-hand {

    top: 0%;

    left: 75%;

    /\* Change code below this line \*/

    background: black;

    /\* Change code above this line \*/

    width: 30%;

    height: 60%;

    border-radius: 30% 30% 30% 120%;

    transform: rotate(-45deg);

    z-index: -1;

  }

  .right-cheek {

    top: 15%;

    left: 35%;

    background: white;

    width: 60%;

    height: 70%;

    border-radius: 70% 70% 60% 60%;

  }

  .left-cheek {

    top: 15%;

    left: 5%;

    background: white;

    width: 60%;

    height: 70%;

    border-radius: 70% 70% 60% 60%;

  }

  .belly {

    top: 60%;

    left: 2.5%;

    background: white;

    width: 95%;

    height: 100%;

    border-radius: 120% 120% 100% 100%;

  }

  .right-feet {

    top: 85%;

    left: 60%;

    background: orange;

    width: 15%;

    height: 30%;

    border-radius: 50% 50% 50% 50%;

    transform: rotate(-80deg);

    z-index: -2222;

  }

  .left-feet {

    top: 85%;

    left: 25%;

    background: orange;

    width: 15%;

    height: 30%;

    border-radius: 50% 50% 50% 50%;

    transform: rotate(80deg);

    z-index: -2222;

  }

  .right-eye {

    top: 45%;

    left: 60%;

    background: black;

    width: 15%;

    height: 17%;

    border-radius: 50%;

  }

  .left-eye {

    top: 45%;

    left: 25%;

    background: black;

    width: 15%;

    height: 17%;

    border-radius: 50%;

  }

  .sparkle {

    top: 25%;

    left: 15%;

    background: white;

    width: 35%;

    height: 35%;

    border-radius: 50%;

  }

  .blush-right {

    top: 65%;

    left: 15%;

    background: pink;

    width: 15%;

    height: 10%;

    border-radius: 50%;

  }

  .blush-left {

    top: 65%;

    left: 70%;

    background: pink;

    width: 15%;

    height: 10%;

    border-radius: 50%;

  }

  .beak-top {

    top: 60%;

    left: 40%;

    background: orange;

    width: 20%;

    height: 10%;

    border-radius: 50%;

  }

  .beak-bottom {

    top: 65%;

    left: 42%;

    background: orange;

    width: 16%;

    height: 10%;

    border-radius: 50%;

  }

  body {

    background:#c6faf1;

  }

  .penguin \* {

    position: absolute;

  }

</style>

<div class="penguin">

  <div class="penguin-bottom">

    <div class="right-hand"></div>

    <div class="left-hand"></div>

    <div class="right-feet"></div>

    <div class="left-feet"></div>

  </div>

  <div class="penguin-top">

    <div class="right-cheek"></div>

    <div class="left-cheek"></div>

    <div class="belly"></div>

    <div class="right-eye">

      <div class="sparkle"></div>

    </div>

    <div class="left-eye">

      <div class="sparkle"></div>

    </div>

    <div class="blush-right"></div>

    <div class="blush-left"></div>

    <div class="beak-top"></div>

    <div class="beak-bottom"></div>

  </div>

</div>