BASIC WEBPAGE CONCEPTS

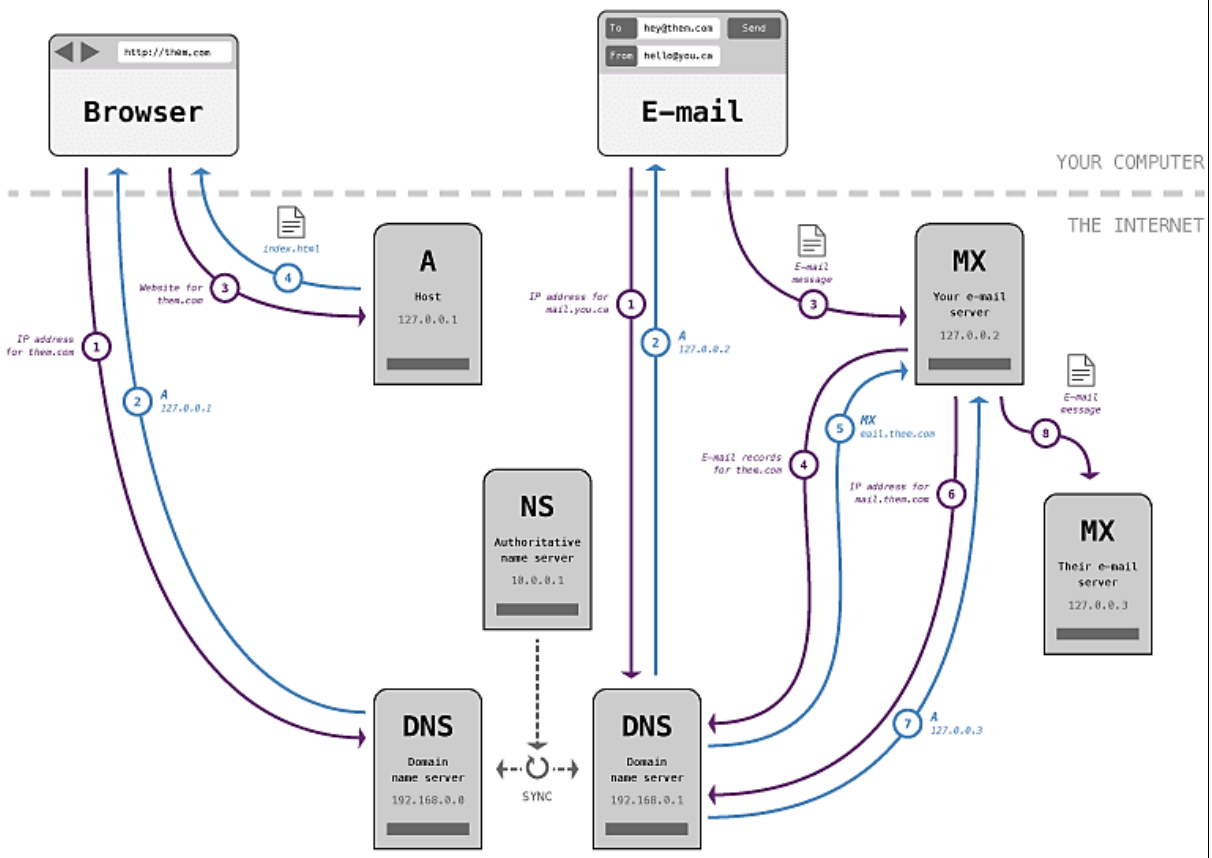
HTML is an acronym for Hyper-Text Markup Language and is used for web development. HTML is used to give a webpage structure by building and positioning containers, adding text, images, and other media, and adding widgets for user interaction.

We typically use CSS to then style a webpage (because plain HTML looks boring) and Javascript to add behaviour and functionality to a web page. If a webpage was a building, the HTML would be the skeleton that can be covered by CSS toolset. Javascript can be used to add functions and interactivity.

HTML is implemented by TAGs that can be considered like containers. Some containers can help to organize and position elements in a webpage, and some are used to hold specific content like text or images or to modify the container contents in some way.

An HTML Tag is also called element that is implemented using <Tag>. Most, but not all, elements have open and close tags to signify where they start and end. For example, a paragraph of text might be enclosed within a element where we put the text between the   tags (open and close tags).

It is important to know that, all webpages are built by HTML, but some frameworks may use programming languages such as Javascript to render HTML elements at runtime.



Understanding How the Internet Works

The Internet is a wide network that connects devices worldwide, generally including:

- Clients
- Internet Service Providers (ISP)
- Domain Name Systems (DNS)

When someone wants to go to a website, like www.google.com, here's what happens in simple steps:

1. The web browser on your computer asks your ISP for help in getting to the website.
2. Your Internet provider talks to a special computer called a DNS server that's like a contact list, which finds the actual address of the website you want to visit.
3. Your browser uses this address to connect to the computer that has the website's information.
4. That computer sends the information back to your browser.
5. Your browser takes all that information and shows you the website, so you can see and use it.

Webpage Components:

HTML & CSS

HTML5

- Uses Brackets and Tags

<>

- You will nest "Elements"

CSS3

- Uses Curly Braces

{ }

- You will list "Rules"

AN HTML5 DOCUMENT STARTS WITH THIS:

```
<!DOCTYPE HTML>
```

A CASCADING STYLE SHEET STARTS WITH A RULE:

```
p {text-align: center;}
```

Add these important tags:

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

NAME YOUR HTML5 DOCUMENT

example: index.html

Add "Rules"

with selectors, properties and values

```
h1 {color: red;}
```

NAME YOUR CASCADING STYLE SHEET

example: style.css

Most HTML5 elements have opening and closing tags.

Link your pages together with the link element.

<link>

Put your style sheet in the same folder as your HTML5 document.

"link" is a VOID element. It has no closing tag.
Add it between your opening and closing <head> tags.

```
<link rel="stylesheet" href="style.css">
```

- Add some new HTML5 semantic elements.

examples:

```
<header> </header>
<footer> </footer>
```

- Add paragraphs with the p element:

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

- Add images with the VOID "img" element: <img> has no end tag.

- Add some new CSS3 properties: border-radius, box-shadow, opacity.
- Utilize the CSS Order of Precedence.

- Tidy up your style sheet by grouping selectors.

```
h1, h2, h3 {color: red;}
```

If you add HTML5's semantic / structural elements, you will need HTML5 SHIV for versions of Internet Explorer below version 9.

HTML5 SHIV

If you add HTML5's semantic / structural elements, you will also need to add this to your cascading style sheet.

```
header, nav, section,
article, aside, footer
{display: block;}
```

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