Web Technologies

Prepared by:

Gene Romuga

Lesson Overview

You will learn about …
- Languages and tools of web development
- Key concepts (URL, HTTP and DOM)
- How do websites work
- Inspect network traffic using DevTools
- HTML & CSS

Front-end vs Back-end

FRONT-END

- Everything that the users see or interact with when they visit the website
- It is developed through the use of HTML, CSS and Javascript

BACK-END (Server-side)

- Everything that the users do not see or contains the behind-the-scenes activities that occur when performing any actions on a web site.

Types of Development

FRONT-END

- HTML
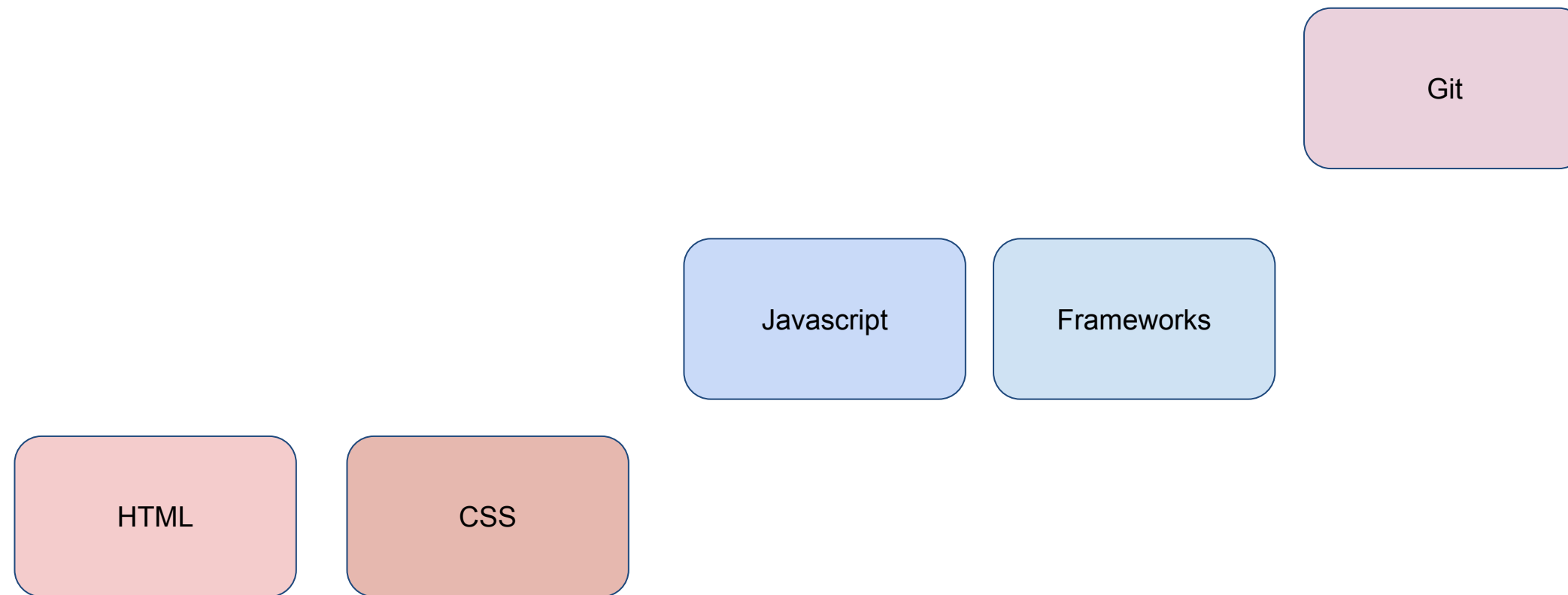- CSS
- Javascript

BACK-END

- Database
- API
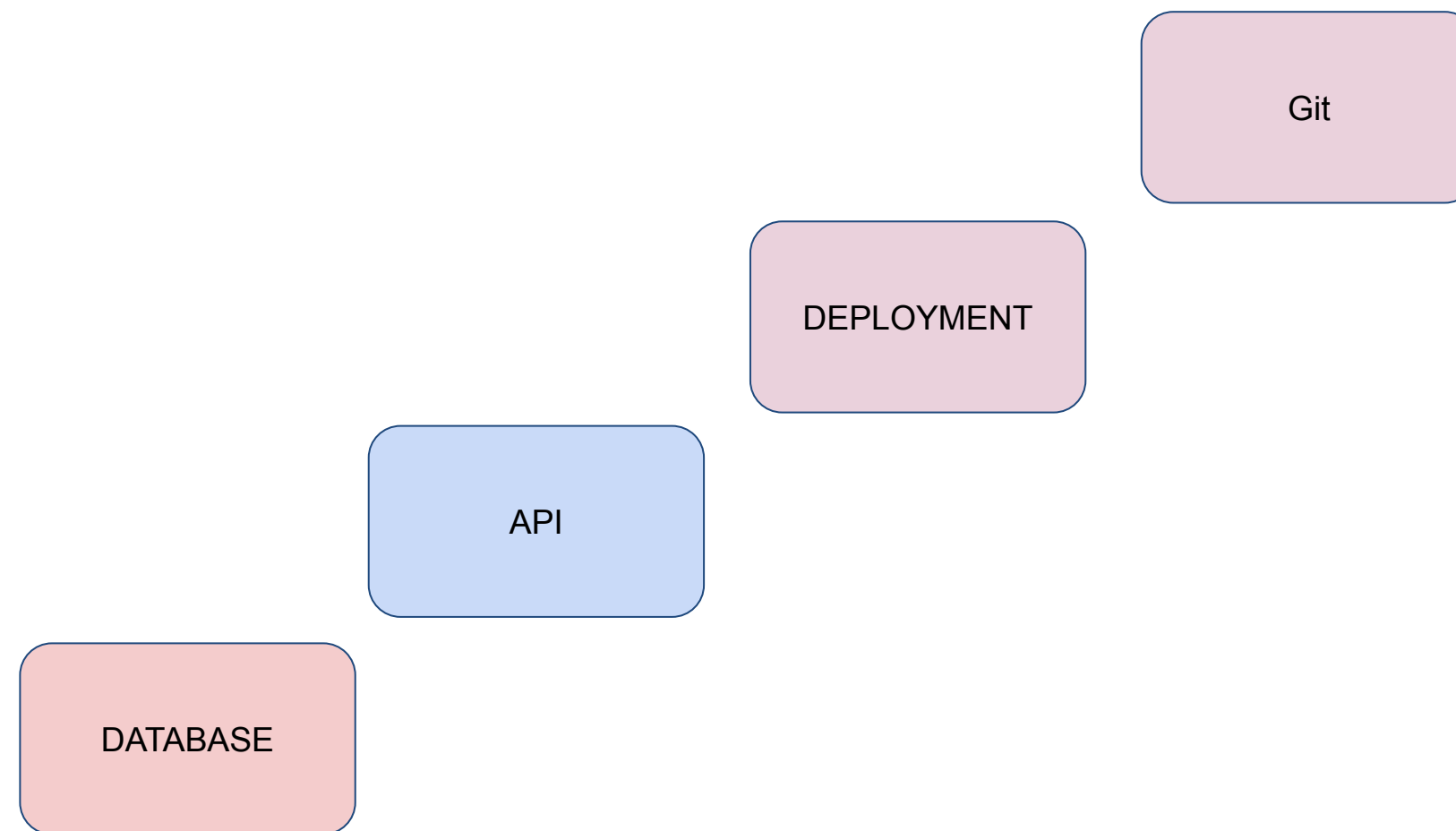- Service Gateway

FULLSTACK

- Combination of front-end and back-end

As a front-end developer ...

You should be able to equip yourself with:

Git

Javascript

Frameworks

HTML

CSS

As a back-end developer ...

You should be able to equip yourself with:

Git

DEPLOYMENT

API

DATABASE

How the web works?

http://www.google.com

URL - Uniform Resource Locator

Resources

- Web pages (HTML documents)
- Images
- Videos
- Fonts

Client

Request →

← Response
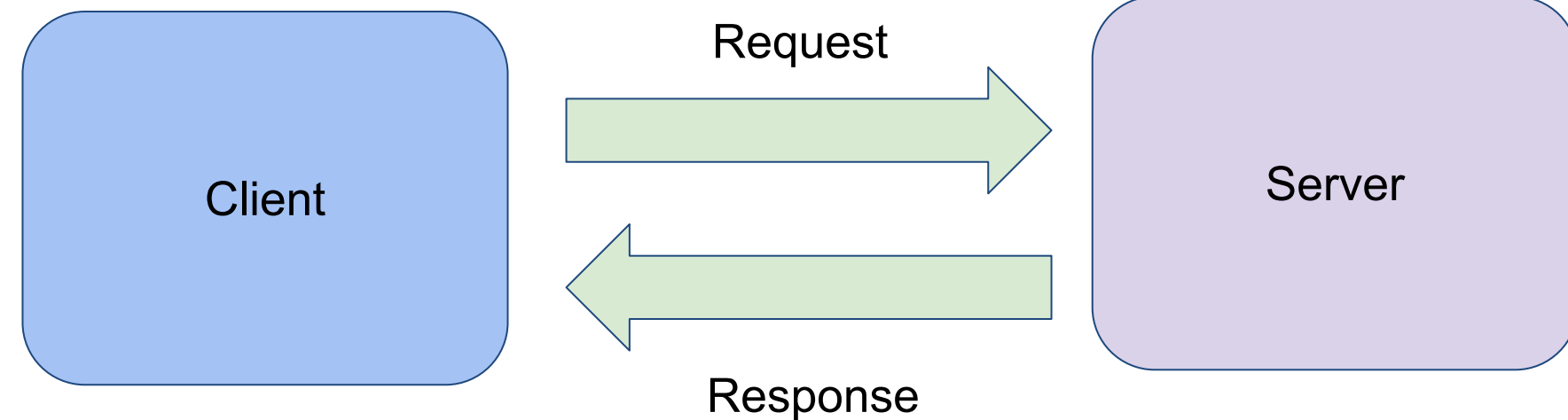
Server

How the web works?

Client

- Makes the request using HTTP/HTTPS
- Hypertext Transfer Protocol (HTTP) is a language that client-server used to communicate with each other (plain text)
- Hypertext Transfer Protocol Secure (HTTPS) - combination of HTTP with the Secure Socket Layer (SSL) / Transport Layer Security (plain text + encryption)

Server

- Returns HTTP response based from the HTTP request
- Source of the website contents/resources
- Usually handles the database and API

Document Object Model (DOM)
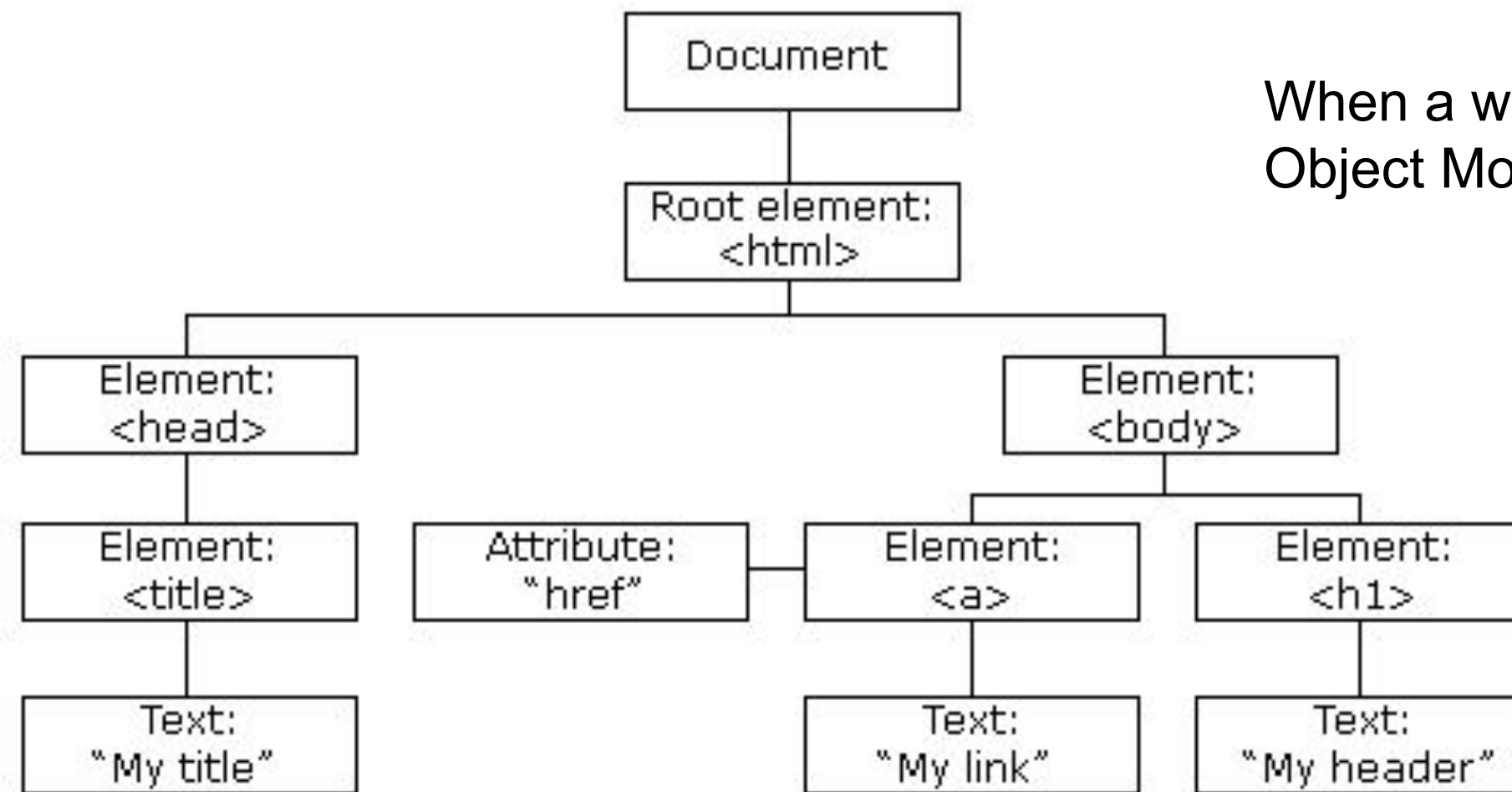
When a web page is loaded, the browser creates a Document Object Model of the page.

- HTML elements as objects
- Properties for all HTML elements
- Methods for all HTML elements
- Events for all HTML elements

Developer Tools

- It is used to check/debug your web pages
- It is used to inspect or modify animations of your web pages
- In short, it contains tools that a developer need.
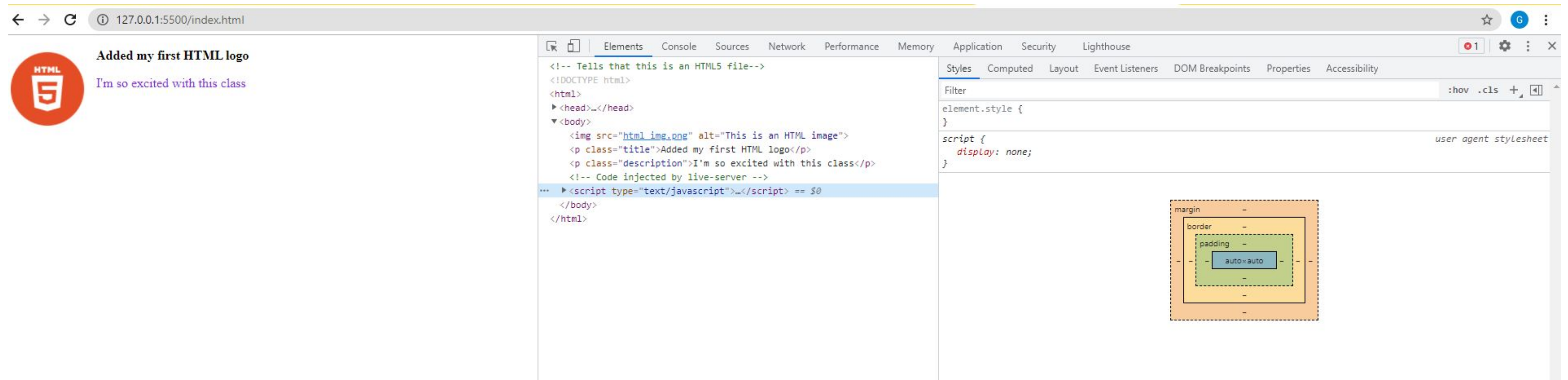
Lesson Overview

HTML basics
- Text
- Comments
- Links
- Images
- Lists & Tables

HTML - Hypertext Markup Language

- It is the standard markup language for web page
- It consists series of elements to make a web page
- It is not case-sensitive

Structure of HTML Document

- <!DOCTYPE html> - defines that the document is an HTML5 document
- <head> - root element of an HTML page
- <title> - specifies the title of the HTML page
- <body> - container of all visible elements like headings, paragraphs, images, etc

HTML Headings

- It can be defined with <h1> to <h6> tags.

<h1>Hello</h1>
<h2>World</h2>
…
<h6>Letran</h6>

Text Formatting

- <b> Bold text
- <strong> Highlight important text
- <em> Emphasize important text
- <small> Smaller text
- <del> Delete text
- <sub> Subscript text
- <sup> Superscript text

Comments

- It used to document a code.
- This line of code will be ignored by the compiler.

<!-- This is a sample comment -->

Paragraphs

- It is used to format series of texts.

  <p>This is a sample sentence in HTML.</p>

Links

- It used to redirect a page into another page.

  Go to Google

LETRAN CALAMBA

COLEGIO DE SAN JUAN DE LETRAN CALAMBA

Images

- It used to embed an image to an HTML page.

    <img src="letran_logo.png">

List (Unordered)

● It allows you to group a set of related items.

```
<ul>
  <li>Dog</li>
  <li>Cat</li>
  <li>Lion</li>
</ul>
```

List (Ordered)

- It allows you to group a set of related items.
- Items will be marked with numbers.

```
<ol>
  <li>Dog</li>
  <li>Cat</li>
  <li>Lion</li>
</ol>
```

Tables

● It consists of table cells inside rows and columns.

```
<table>
  <tr>
    <th>Name</th>
    <th>Age</th>
    <th>Course</th>
  </tr>
  <tr>
    <td>Juan dela Cruz</td>
    <td>18</td>
    <td>IT</td>
  </tr>
  <tr>
    <td>Joan Cruz</td>
    <td>19</td>
    <td>CS</td>
  </tr>
</table>
```