**DAY 1 - TOTAL TIME 73m**

**PART 1**

**A/ GETTING STARTED (3m)**

\*Tools :

Code editor : VS code

Recommended extension :

- Prettier (code formatter)

- Live server (live reaload feature)

Default Browser : Google Chrome

Helping forum https://forum.codewithmosh.com

**B/ Web Development Fundamentals (36m)**

**1- Introduction**

**2- Languages and Tools of Web Development**

\*Web development Roadmap :

- Front-end : visualization

- Back-end : storing databases and give it to front-end part

\*Front-end languages :

- HTML (Hypertext Markup Language ) : define the structure of the web page => Markup Language

- CSS (Cascading Stylesheet) : styling web page => Styling Language

- Javascript : adding function to webpage => Programming Language

^Frameworks :front-end library to help us done faster

The most popular framework : React

\*Version control systems :

Git is the most popular ( 70% development team used)

**3- How the Web Works**

URL (Uniform Resource Location ) : an address to locate the resources

+Resources : HTML files , videos ,fonts ,images ,etc.

Request stage :

Browser ----------> Computer

(Client) (Server )

The browser sends an HTTP (Hypertext Transfer Protocol) request message to the server, asking it to provide the client a copy of the webpage .

Response stage :

Browser <---------- Computer

(Client) (Server )

Then server starts sending the website's files to the browser

DOM (Data Model Object) : the model that represent elements in HTML ( paragraphs ,image , video ,.. )

When server response with HTML codes , DOM will render the page from HTML file

4- Formatting code

Open command pallet ( On Windows : Shift + Ctrl + P)

Then type “format document “ and choose Prettier (code formatter )

Tips : format on save :

File -> Preference -> Setting -> Enable Format on save

**C/ HTML Basics (64m)**

**1- Introduction**

Learning list :

Text

Links

Images

Lists & Tables

Container elements

**2- The Head Section**

Tips : Type ! then press TAB to have a basic HTML template

<!DOCTYPE html> <!-- Declare document type : html -->

<html lang="en">

<head>

<meta charset="UTF-8"> <!-- Define character set : UTF-8 -->

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<!-- Help the webpage looks good on all devices (phone , tablet,...) -->

<meta name="keywords" content="Portfolio"><!-- Declare keyword for searching engine (can be multiple keywords) -->

<meta name="description" content="This is Quan Nguyen's Portfolio"><!-- Describe about the web page -->

<title>Document</title>

</head>

<body>

</body>

</html>

\*2 types of charset : ASCII (Only English) and UTF-8 (most of international languages)

**3- Text Use <p> (paragraph)**

\*Text : <p> (paragraph)

Ex : <p>My name is Quan Nguyen</p>

<p>My name is <em>Quan</em> Nguyen</p>  <!-- stress emphasis -->

Output : My name is Quan Nguyen

<p>My name is <strong>Quan</strong> Nguyen</p>  <!--Bold-->

Output : My name is **Quan** Nguyen

\*Heading : <h> element

<h1>Heading 1</h1>

<h2>Heading 2</h2>

<h3>Heading 3</h3>

Heading 1 is the most important heading and Heading 3 is the least => Font size decrease from heading 1 to heading 3

**Heading 1**

**Heading 2**

**Heading 3**

Webpage should only have one heading.

**4- Entities**

Use : To display special character

Syntax : start with & and end with ;

<p>My name is <Quan> </p>

Result : My name is

<p>My name is &lt;Quan&gt; </p>

Result : My name is <Quan>

Entites reference page : <https://dev.w3.org/html5/html-author/charref>

**5- Hyperlinks** ( )

<a href=""></a>

<a href="about/about.html"></a> <!-- "a" stand for anchor , href stand for hyperlink reference  -->

Add download alt to download the href resource

<a href="../img/myphoto.jpg" download>My Photo</a>

Link to another website

=> use absolute URL ( starts with http and go with domain name .

EX : <https://www.youtube.com/watch?v=8Fy_3TEh5_0>

instead of using relative URL

EX : about/about.html

<a href="http://apple.com">Apple</a>

Use alt target="\_blank" to open page in a new tab

**6- Images**

<img src="drone.jpg" alt="This is a drone">

Use alt attribute to describe the image . In case of network problem , this text will appear if the web page can not load the image

Using CSS to modify the width and height of image

<style>

    img{

        width: 200px;

        height: 300px;

    }

</style>

<body>

    <img src="drone.jpg" alt="This is a drone">

</body>

</html>

Using CSS to modify the width and height of video

<style>

    video{

        width: 300px;

        height: 400px;

    }

</style>

<body>

    <video src="vids/pexels-mylo-kaye-7072343.mp4"></video>

</body>

</html>

<video controls autoplay loop src="vids/stadium.mp4"></video>

Use “control “ attribute to display control function of video ( play/stop , changing volume , …)

Use “autoplay” to set it automatically play when we start the web page

Use “loop” to set it to be a non-stop video

<audio src=""></audio>

**8- Lists**

3 types : Unordered <ul> , ordered list <ol> (where does the order of the list matter) , dercription list <d;>

Unordered list :

<body>

    <li>

        <li>About me</li>

        <li>My Photo</li>

        <li>My resume</li>

        <li>Contact</li>

    </li>

</body>

</html>

* About me
* Skills
* My resume
* Contact

Lists can be nested :

<body>

    <ul>

        <li>About me</li>

        <li>Skills

            <ul>

                <li>HTML</li>

                <li>CSS</li>

                <li>JS</li>

            </ul>

        </li>

        <li>My resume</li>

        <li>Contact</li>

    </ul>

</body>

* About me
* Skills
  + HTML
  + CSS
  + JS
* My resume
* Contact

Ordered list:

<ol>

        <li>Open the door</li>

        <li>Go out</li>

        <li>Close the door</li>

</ol>

1. Open the door
2. Go out
3. Close the door

Description list

    <dl>

        <dt>HTML</dt>

        <dd>My favorite language</dd>

    </dl>

HTML

My favorite language

<dt> stands for description term

<dd> stands for description detail

**9- Tables <table>**

<tr> : define table rows

<td> : define table datacells

<body>

    <table>

        <tr>

            <td>Marketing</td>

            <td>200$</td>

        </tr>

        <tr>

            <td>Accounting</td>

            <td>100$</td>

        </tr>

    </table>

</body>

|  |  |
| --- | --- |
| Marketing | 200$ |
| Accounting | 100$ |

<th> : to add table headings

Use attribute “colspan” (stands for column span) to define number columms that the cell should expands to )

<body>

    <table>

        <tr>

            <th colspan="2">Expenses</th>

        </tr>

        <tr>

            <th>Category</th>

            <th>Amount</th>

        </tr>

        <tr>

            <td>Marketing</td>

            <td>200$</td>

        </tr>

        <tr>

            <td>Accounting</td>

            <td>100$</td>

        </tr>

    </table>

</body>

</html>

**10- Containers**

<div> is the most popular container

    <div class="about">

        <p>My name is Quan Nguyen </p>

        <a href="#">My bio</a>

    </div>

Using “class” attribute to give <div> a class . This is convenient for styling <div> by using css .

Styling <div> : using a dot before the div‘s class

.about{

        color: red;

    }

<span> : an inline container used to mark up a part of a text ( Not for the whole block like div)

<style>

    .about{

        color: red;

    }

    .orange

    {

        color: orange;

    }

</style>

<body>

    <div class="about">

        <p>My name is <span class="orange">Quan Nguyen</span> </p>

        <a href="#">My bio</a>

    </div>

</body>

</html>