Introduction To Web Development

Requirements

The minimum requirement to learn web development:

- Motivation
- Computer
- Internet
- Patience

Web Development

Web development is a process of designing, building, testing, and maintaining a website which ranges from a simple single page static website to a complex full-stack applications. This field has two broad categories.

- Frontend
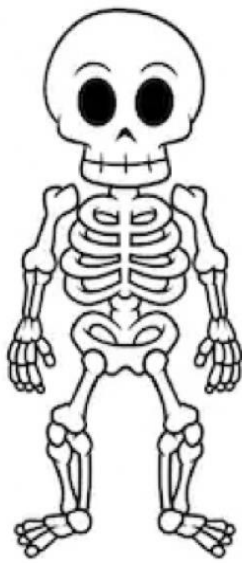- Backend

Frontend Web Development

A front end (client-side) is a website that a user can see and interact with. It can be also called a client-side because it is the part that the user (client) can see and interact with. Therefore, anything we see on any website when we surf on the internet is part of the front end.

The core technologies to build a front end

- HTML
- CSS
- JavaScript

There are hundreds of JavaScript that allows building a dynamic web applications. Currently, the three most popular JavaScript libraries are:

- React
- Vue
- Angular

HTML   HTML + CSS   HTML+CSS+JavaScript

Backend Web Development

Backed (Server-side) development refers to the activities that happens behind the scene. Backend development consists of backend a programming language and a database. The backend interacts with frontend and the database using a backend programming language.

Backend Programming language

- Node.js
- Python
- Ruby
- PHP etc.

Full-stack Web Development

Full-stack is another buzzword that no one agrees on the definition. You can understand Full-stack web development as a sum of frontend, backend, testing, and including some other technologies.

Web Development Tools

Tools you need as a web developer

- Motivation
- Computer
- Internet: To access information or resources
- Browser: allows to render HTML code to a human readable output (website pages).

Examples of browsers(Chrome, Firefox, IE, Safari, Opera, Brave, etc)

- Code Editor: allows to write code. For example(Visual Studio Code, Atom, Sublime Text, Bracket, etc)

Parts of a website

A website can have a couple of features or several features. There is no guideline that tells what a website should have but most of the time a website has the following common parts(components).

Let's see the most common parts (components) of a website:

- Website Logo
- Header/Banner
- Navigation Bar/Menu Bar
- Carousel
- Sections
- Forms
- Buttons

- Links
- Images
- Videos
- Audios
- Social Links
- Footer

Do not learn JavaScript before, HTML and CSS. Do not learn JavaScript libraries before you learn JavaScript. This the right sequence of learning:

HTML > CSS > JavaScript > React or Vue or Angular.

What is HTML?

The word HTML is an acronym. That is stands for Hypertext Markup Language. It is the standard markup languages to develop websites. HTML is the build block of the web that allows building layouts of page using HTML elements.

HTML Element

HTML elements consists of an open tag (<>), attribute(s), content and closing tag(<>). Look at the figure below to understand a syntax of an HTML element.

```
Examples


1. <h1>Welcome to 30 Days of HTML</h1>


2. <p>
   HTML elements are the blocking of a
website. There is not website without
   HTML. Learn HTML and build a website.
</p>
```

Attribute

HTML attributes provide additional information about the element. An attribute can added only in the opening tag. It will be difficult to list down all

```
<tagname attributename="attribute-value">Content</tagname>
```

```
<h1 id="first-title">Welcome to 30 Days of
HTML</h1>
```

An HTML element with multiple attributes

```
<h1 id="first-title" class="title">Welcome
to 30 Days of HTML</h1>
```

```
<p style="color:gray;">
  HTML elements are the blocking of a
website. There is not website without
  HTML. Learn HTML and build a website.
</p>
```

Some HTML elements do not have closing tag,
instead they have self-closing tag.

An example of self-closing tags:

```
<area />
<base />
<br />
<col />
```

```
<embed />
<hr />
<img />
<input />
<link />
<meta />
<para />
<source />
<track />
<wbr />
```

The slash is optional but I strongly recommend to use the slash with self-closing tags. For instance, React.js does not allow you to use without the slash.

HTML Comment

Comment in any programming language help a code to be more readable. Therefore, it is common to leave some text on a code to make it more readable and maintainable. Let us the syntax of an HTML comment, it has opening ()

```html
<!-- The is an HTML comment and it makes
the code more readable -->
```

Project1.

```html
<!DOCTYPE html>
<html>
  <head>
    <title>30 Days Of HTML</title>
  </head>
  <body>
    <header>
      <span style="color: #e34c26">H</span>
      <span style="color: #264de4">T</span>
      <span style="color: #f0db4f">M</span>
      <span style="color: #61dbfb">L</span>
    </header>
    <main>
      <section>
        <h1 id="first-title">The Building Blocks of
the web</h1>
        <p>
          There is not website without HTML. Learn
HTML and build websites and
          web applications
        </p>
      </section>
    </main>
```

```html
    <footer>
      <small>Copyright 2021 | Asabeneh
Yetayeh</small>
    </footer>
  </body>
</html>
```