

Lesson 1

Web Development

Introduction

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Outline

- Thinking Time
- Knowledge
- Exercise
- Assignment

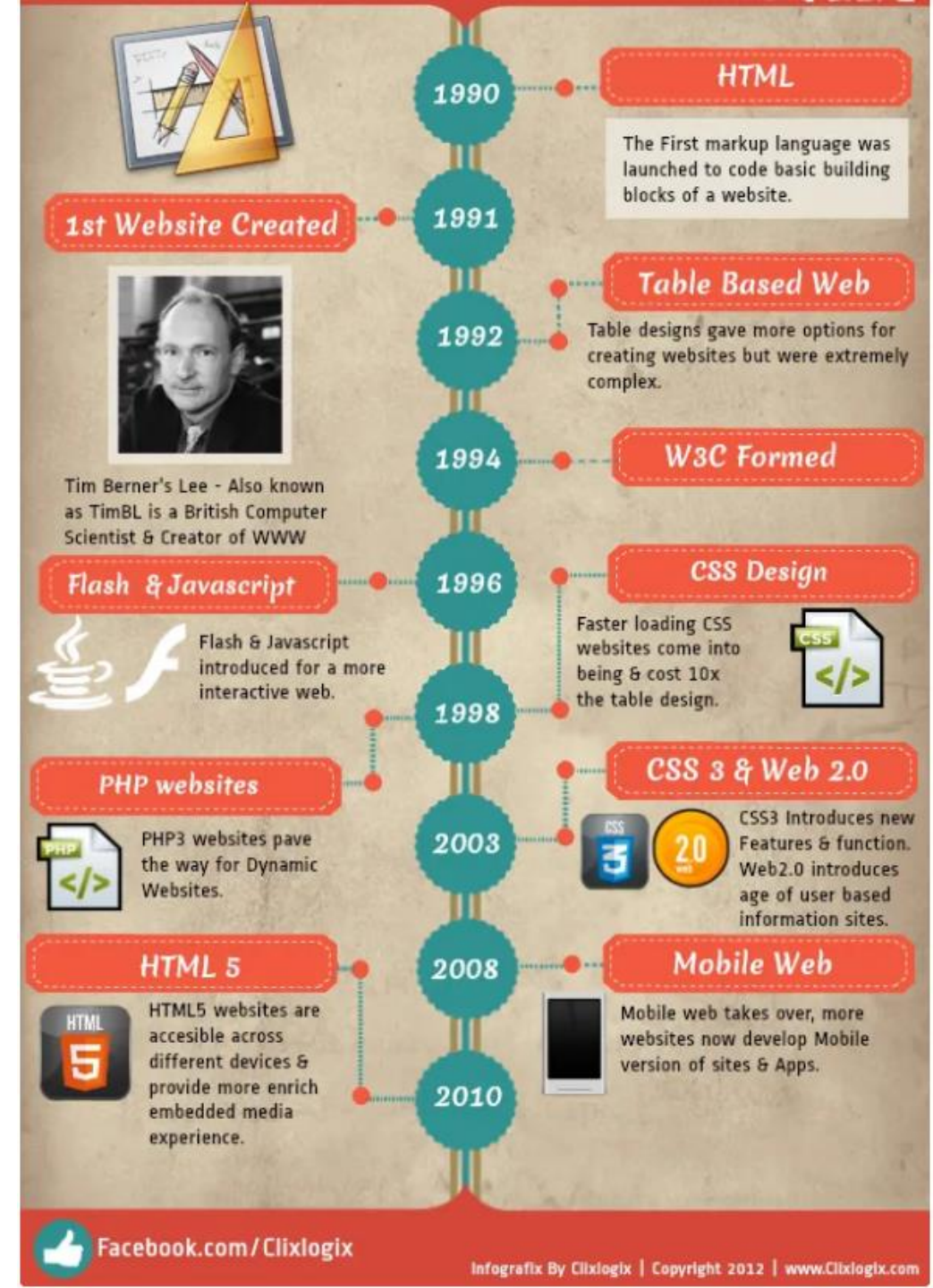
Thinking Time

- What's the WEB?
- What's the Web development?
- Why need to learn that?
- How to learn?
- What to learn?

Knowledge

What's the WEB(World Wide Web)?

- The World Wide Web (known as "**WWW**", "**Web**" or "**W3**") is **the universe of network-accessible information, the embodiment of human knowledge**.
- The World Wide Web began as a networked information project at **CERN**, where Tim Berners-Lee, now Director of the World Wide Web Consortium [**W3C**], developed a vision of the project.
- The Web has **a body of software, and a set of protocols and conventions**. Through the use of hypertext and multimedia techniques, the web is easy for anyone to roam, browse, and contribute to.



Knowledge

The versions of WEB(**World Wide Web**):

Version	When start	Features	Technology	Example
1.0	1993 by Tim Berners-Lee	Read & Static	HTML, HTTP, XML, XHTML and CSS	https://www.google.com
2.0	2003 by Dale Dougherty	Read & Write	JavaScript and XML, DOM, REST, XML and CSS	https://en.wikipedia.org/
3.0	2014	Interact with Applications	LLC, CEO HTML5 , CSS3 , JavaScript	Like some web game
Semantic	2015	Intelligent interaction	RDF,RDFS, OWL and SPARQL	https://schema.org/

Knowledge

Web development layers:

- Content(Structure) Layer:

How to structure a web page, **HTML5**

- Presentation Layer:

How to show a web page, **CSS3**

- Behaviour Layer:

How to response to interaction on a page, **JavaScript**

Knowledge

HTML stands for **Hypertext Markup Language**.

- **Hypertext** is the method by which you navigate around the Internet. Hyper just means it is not linear, or you can go to any place on the Web by clicking links.
- **Markup** is what HTML tags do to the text inside them. They mark it as a certain type of text.

Knowledge

HTML is text based language.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device
-width, initial-scale=1.0">
  <title>Hello World Test Page</title>
</head>
<body>
  <h1>Hello, World!</h1>
</body>
</html>
```


Knowledge

CSS stands for **Cascading Style Sheets**, is a text based language that is used to help style and design web sites. It can be used to describe how the page should look in terms of color, layout, and fonts.

```
html {  
  height: 100%;  
}  
body {  
  padding: 0 0 0 0;  
  margin: 0;  
  user-select: none;  
  background-color: red;  
}
```

Knowledge

JavaScript or **ECMAScript** is a programming language that helps you **add interactivity to your webpage**. Like:

- When you select a button, JavaScript is the code that defines the event or behaviour that will happen, such as open a popup window.
- Using JavaScript, you can add or remove content like text from the webpage without reloading it.

Knowledge

JavaScript or **ECMAScript** is a text based language as well

```
'use strict';  
console.log('This is my first script.');
```



```
let today = new Date();  
let formatDate = today.toDateString();  
let selectElement = document.getElementById('date');  
selectElement.innerHTML = formatDate;
```

Knowledge

Tool for development of web

- Text editor
- Online tools
- **IDE(Integrated development environment)**, like Visual Studio Code

Exercise

Install and tour Visual Studio Code

Assignment

Reading

- <https://www.w3.org/People/Berners-Lee/Kids.html>
- <https://www.w3.org/History.html>

Complete the exercise “**Install and tour Visual Studio Code**” and make your development environment ready.