Session – 1:
A Quick Intro to HTML

What is HTML?

HTML stands for Hyper Text Markup Language

HTML is the standard markup language for creating Web pages and web applications

HTML describes the structure of a Web page

HTML consists of a series of elements

HTML elements tell the browser how to display the content

HTML elements label pieces of content such as "this is a heading", "this is a paragraph", "this is a link", etc.

HTML 5

CSS 3

Let's see what is meant by Hypertext !!

Hypertext simply means "Text within Text." A text has a link within it, is a hypertext.

Whenever you click on a link which brings you to a new webpage, you have clicked on a hypertext.

Hypertext is a way to link two or more web pages (HTML documents) with each other.

Let's see what is meant by Markup Language, and Web page !!

Markup language:
- o A markup language is a computer language that is used to apply layout and formatting conventions to a text document.
- o Markup language makes text more interactive and dynamic. It can turn text into images, tables, links, etc.

Web Page:
- o A web page is a document which is commonly written in HTML and translated by a web browser.
- o A web page can be identified by entering an URL. A Web page can be of the static or dynamic type. **With the help of HTML only, we can create static web pages**.

Defining HTML!!

o Hence,HTML is a markup language which is used for creating attractive web pages with the help of styling, and which looks in a nice format on a web browser.

o An HTML document is made of many HTML tags and each HTML tag contains different content

o HTML is widely used language on the web.

o We can create a static website by HTML only.

o Technically, HTML is a Markup language rather than a programming language.

HTML 5   CSS 3

Brief History of HTML

- In the late 1980's , a physicist, Tim Berners-Lee who was a contractor at CERN, proposed a system for CERN researchers. In 1989, he wrote a memo proposing an internet based hypertext system.

- **Tim Berners-Lee** is known as the father of HTML. The first available description of HTML was a document called "HTML Tags" proposed by Tim in late 1991. The latest version of HTML is HTML5, which we will learn later in this tutorial.

HTML Versions

HTML 1.0: The first version of HTML was 1.0, which was the barebones version of HTML language, and it was released in1991.

HTML 2.0: This was the next version which was released in 1995, and it was standard language version for website design. HTML 2.0 was able to support extra features such as form-based file upload, form elements such as text box, option button, etc.

HTML 3.2: HTML 3.2 version was published by W3C in early 1997. This version was capable of creating tables and providing support for extra options for form elements. It can also support a web page with complex mathematical equations. It became an official standard for any browser till January 1997. Today it is practically supported by most of the browsers.

HTML Versions

HTML 4.01: HTML 4.01 version was released on December 1999, and it is a very stable version of HTML language. This version is the current official standard, and it provides added support for stylesheets (CSS) and scripting ability for various multimedia elements.

HTML5 : HTML5 is the newest version of Hypertext Markup language. The first draft of this version was announced in January 2008. There are two major organizations one is W3C (World Wide Web Consortium), and another one is WHATWG(Web Hypertext Application Technology Working Group) which are involved in the development of HTML 5 version.

In Executions We use HTML5 version.

HTML 5

CSS 3

Features of HTML

HTML, a powerful tool

1 It is a very **easy and simple language**. It can be easily understood and modified.

2 It is very easy to make an **effective presentation** with HTML because it has a lot of formatting tags.

3 It is a **markup language**, so it provides a flexible way to design web pages along with the text.

4 It facilitates programmers to add a **link** on the web pages (by html anchor tag), so it enhances the interest of browsing of the user.

5 It is **platform-independent** because it can be displayed on any platform like Windows, Linux, and Macintosh, etc.

Features of HTML

HTML, a powerful tool

6 It facilitates the programmer to add **Graphics, Videos, and Sound** to the web pages which makes it more attractive and interactive.

7 HTML is a **case-insensitive language**, which means we can use tags either in lower-case or upper-case.

8 It is free of **cost**. Since it does not need any plug-ins or software's, you will save a lot of money if you choose to design your site using this language.

9 It is **supported by almost all of the development tools** and hence it will be much easier to create and develop a website using HTML in comparison to other programming languages.

10 **HTML is supported by all the browsers.** your website will open on almost all the browsers around the world if it is created using HTML. Also, is it is easy to optimize a website that is made using HTML

Challenges of HTML

Though it is powerful,…

1 **Complexity**– A lot of code can be complex to handle

2 **Security**– It is not secure by its own

3 **Not Centralized**– Each page should be programmed separately

4 **Dynamic Pages**– Creating dynamic pages are hard

Benefits of HTML

This is why we love it;

1 Easy to learn, and use

2 Free source

3 Supports by all Browsers

4 Most Friendly Search Engine

5 Simple to Edit

6 Portable and Platform Independent

7 Integrate Easily with Other Languages

8 Lightweight

9 Basic of all Programming Languages

10 User-Friendly and Display Changes Instantly

Top Applications

1. Web Development

HTML is heavily used for creating pages that are displayed on the world wide web.

Every page contains a set of HTML tags, including hyperlinks which are used for connecting to other pages.

Every page that we witness on the world wide web is written using a version of HTML Code.

Top Applications

2. Game Development

Before the advent of HTML5, game development was an exclusive domain of Flash and Silverlight.

Since browsers support new specifications for HTML5, including CSS3 and light-fast JavaScript engine to drive a new rich experience, HTML5 can bring the reality of game development possible, which was earlier the forte of Flash and Silverlight.

Every feature of APIs needs not to be implemented, but the most appropriate ones can be utilized while eliminating the rest of the features.

Top Applications

3. Hybrid Apps Development

HTML5 apps that utilize native device features, such as a camera or accelerometer, and use device APIs such as Apache* Cordova (cordova.org). These apps are also "packaged" for distribution by the various app stores.
In fact, Python provides the skeleton for applications that deal with computation and scientific data processing.

HTML5 enables one to write truly "responsive" apps. This is an app that will automatically resize based on the browser and screen size; automatically detect and change the user interface (UI) to reflect that of the platform on which the app is running; and will change according to the orientation of the device. Creating apps that respond in this way is the essence of "responsive design".

Let's see an simple example of HTML!!

```html
<!DOCTYPE>
<html>
<head>
<title>Web page title</title>
</head>
<body>
<h1>Write Your First Heading</h1>
<p>Write Your First Paragraph.</p>
</body>
</html>
```

Sublime Text

Step0:
Download and install the sublime text editor from the
Link given below in the footer based on your operating system.

sublimetext.com/download

S Sublime Text   Download

Download

Sublime Text 4 is the current version of Sublime Text. For bleeding-edge releases, see the dev builds.

Version: Build 4107

- macOS (10.9 or later is required)
- Windows - also available as a portable version
- Linux repos - also available as a x86-64 or ARM64 tarball

When installation of Sublime text editor done then you can
follow the simple steps from the next slides

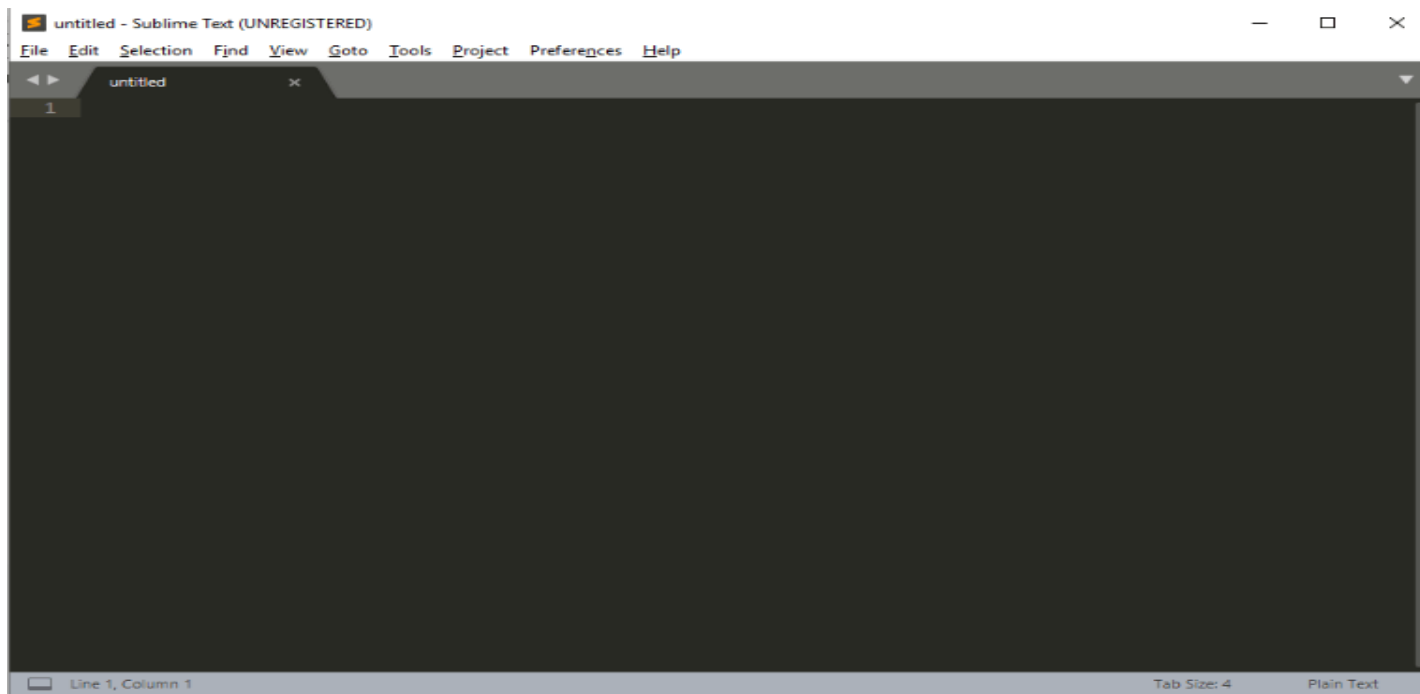https://www.sublimetext.com/download

Sublime Text

Step 1: **Open Sublime Text editor(Windows 8):**

To open Sublime Text editor go to **Start screen** ⇢ **type Sublime Text** ⇢ **Open** it. To open a new page press **CTRL+N.**

untitled - Sublime Text (UNREGISTERED)

File Edit Selection Find View Goto Tools Project Preferences Help

untitled

1

Line 1, Column 1   Tab Size: 4   Plain Text

DESTINATION
codegnan

Sublime Text

Step 2: Save the page before writing any code:

To save your page in Sublime Text press Ctrl+S or go to File option ⇢ save, to save a file use extension .htm or .html (We recommend to save the file first then write the code because after saving the page sublime text editor will give you suggestions to write code.)

https://www.sublimetext.com/download
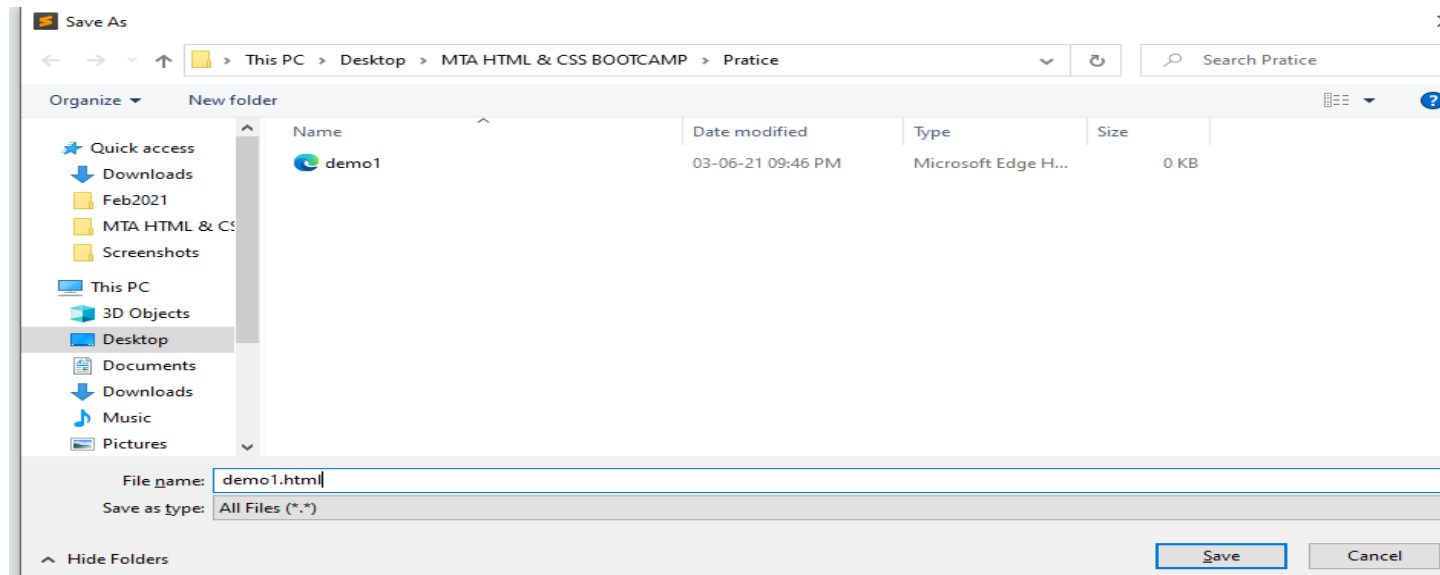
Sublime Text

Step 3: Write the code in Sublime Text editor

Write the sample Example HTML Code from the above slide and save it press
Ctrl+S or go to File option ⇢ save

```
demo1.html                    ×
1   <!DOCTYPE>
2   <html>
3   <head>
4   <title>Web page title</title>
5   </head>
6   <body>
7   <h1>Write Your First Heading</h1>
8   <p>Write Your First Paragraph.</p>
9   </body>
10  </html>
```
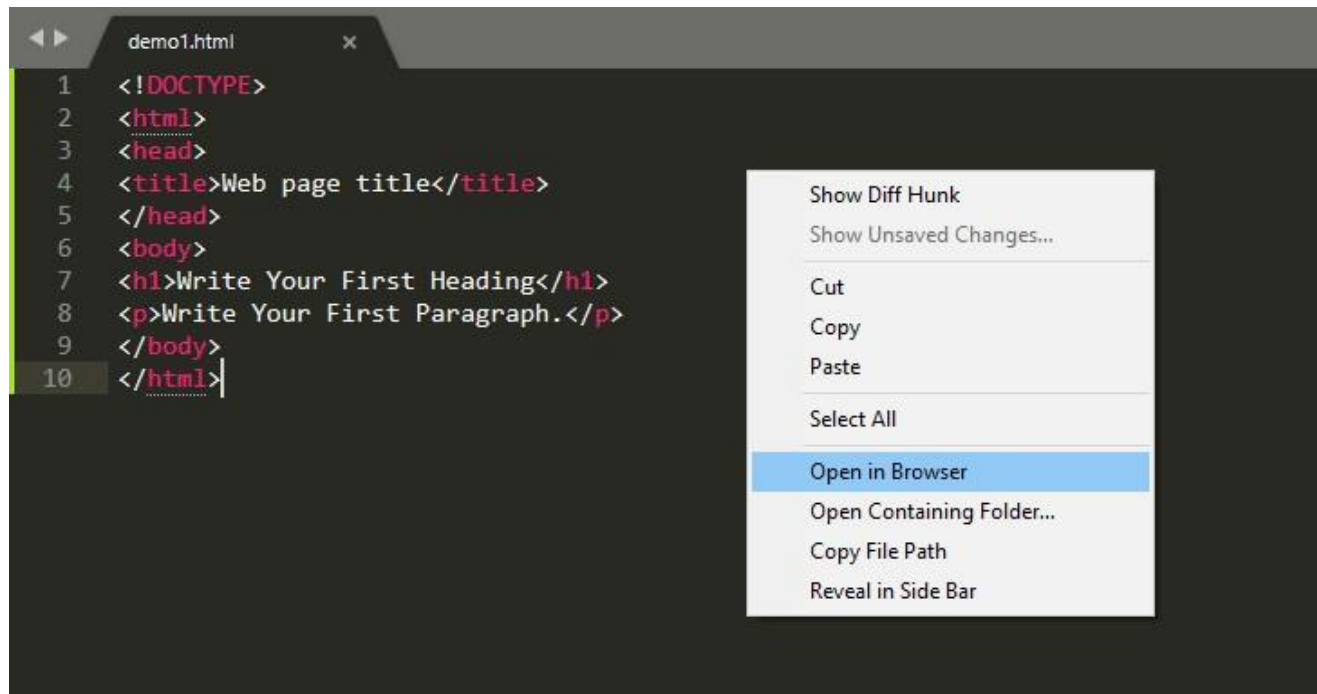
https://www.sublimetext.com/download

Sublime Text

Step 4: **Open the HTML page in your Browser**

To execute or open this page in Web browser just **right click** by mouse on sublime text page and click on **Open in Browser**.
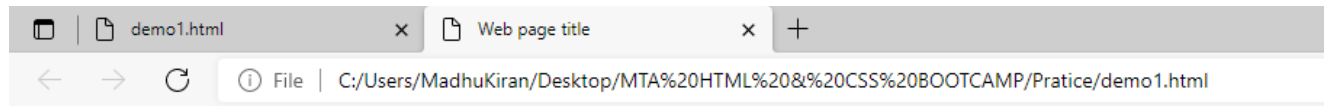


```
demo1.html                    ×
1  <!DOCTYPE>
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4  <title>Web page title</title>
5  </head>
6  <body>
7  <h1>Write Your First Heading</h1>
8  <p>Write Your First Paragraph.</p>
9  </body>
10 </html>
```

Show Diff Hunk
Show Unsaved Changes...

Cut
Copy
Paste

Select All

Open in Browser
Open Containing Folder...
Copy File Path
Reveal in Side Bar

https://www.sublimetext.com/download

Sublime Text

Output

It will open in the default browser as shown below.

Questions??

Every engineer has a tendency to tinker on a problem, lets answer few of them.