Build a Weather App

DAY 1

Introduction!

I am bad at describing about myself :(

My name is

HRITIK AGGARWAL!

"REE - TICK"

Important Notes -

- You **DON'T** need any experience.

- We will be using **HTML5**, **CSS3**, and **JavaScript** for building this web app.

- This workshop will be spread across 6 parts each week from 5:30 to 7:30 in this same room (SMITH 311).

How many people know what flex-boxes are?

Raise your hands please!

Softwares you need -

- Preferred Browser - Google Chrome

- Preferred Text Editor - Visual Studio Code - pros call it VS Code (you should too ;)

- That's all folks!!!

Initial Setup -

- Go to **https://github.com/hritikaggarwal2/BuildAWeatherApp OR bit.ly/WeatherApp19**

- Download Zip file by pressing the Green Button on the page which says "Clone or download"

- Now extract this folder to your desktop (or wherever you prefer)

- This is the folder we will be working in!

What is HTML?

- A markup language (i.e it is used to represent text and other data)

- Stands for **HyperText Markup Language**

- Basically it's the building blocks for webpages

- HTML5 is the latest version of HTML which has introduced a lot of new and interesting features to HTML

What HTML looks like?

```html
<!DOCTYPE html>
<html lang="en">
    <head>
        <meta charset="utf-8">
        <meta name="author" content="DubsTech">
        <meta name="description" content="Building a weather app">
        <title>Your weather app</title>
        <link href="css/style.css" rel="stylesheet">
    </head>
    <body>
        <h1>Weather app</h1>
        <img src="img/cloudy.jpg" alt="Cloudy">
        <p>It's pretty cloudy</p>

        .
        .
        .
    </body>
</html>
```

Creating an HTML file

Let's get started!

Steps to create your first HTML file

- Open VS Code (Visual Studio Code)

- Mouse Drag the folder that you just extracted from the downloaded zip file into VS Code

- Now to create a new file you can press **cmd + N** or **ctrl + N** or go to **File -> New File**

- After you get this new empty file we will save this file with an extension of **.html** - make sure you save it in the folder that you just dragged

- To save the file press **cmd + S** or **ctrl + S** or go to **File -> Save File**

You saved as .html right??

Just be sure about that!

Any questions up till now?

Don't feel shy!

HTML Fundamentals

Is it time to write the code already? NO :P

NO NEED TO TYPE STUFF RIGHT NOW!

Let's concentrate on understanding first!

What are <tags>

- Tags are the building blocks of HTML files

- Basically "keywords" - special words that are surrounded in **<** & **>**

- There are two types of tags

  <u>Container Tag</u> **:** tags which have both starting and ending
  - *<**tag**>* some content / other tags *</**tag**>*

  <u>Empty Tag / Self-Closing Tag</u> **:** tags which have both starting and ending
  - *<**tag** />*

Fundamental HTML Tags

<html>Setting up the structure</html>

<!DOCTYPE html>

- A VERY SPECIAL TAG!!!!!!!!!!!!!!
- Different from other tags as neither a container tag nor an empty tag
- This tag tells the webpage that the document is an HTML5 webpage
- Even if you don't write this right now, your code will run perfectly! But this will be important when/if you start working as a developer
- Always comes on top of the html file

<html></html>

- This wraps everything below <!DOCTYPE html>
- Everything that you want to write will come inside this!
- Will only come once in a web page!

<!DOCTYPE html>
<html>

 …

</html>

<body></body>

- We write all the content (text, images, tables, and basically all the visible part here)
- This will come directly inside <html> tag

<!DOCTYPE html>
<html>
    <body> ... all visible content comes here ... *</body>*
</html>

Any questions up till now?

Don't feel shy!

Inspector Tool

<body>Developer tools in chrome</body>

Developer Tools in Chrome

● Right click on any page
● Click on Inspect
● A window opens up
● Under the "Elements tab" you can see the entire HTML structure of that page!
● There are some great tools in that panel which we will talk about during the entire course :)

Basic HTML Tags

\<p\>Important content ahead\</p\>

Heading Tags

- Heading tags denote titles, subtitles, etc.
- Container Tag as you can add content inside this!
- There are 6 different heading tags

<h1></h1>

<h2></h2>

<h3></h3>

<h4></h4>

<h5></h5>

<h6></h6>

The <h1> tag is the biggest and the <h6> tag is the smallest

Paragraph Tag

- The **\<p\>** tag is used for smaller blocks of text like paragraphs
- Generally contain multiple lines.
- Container Tag as you can add content inside this!
- For example:

  \<p\>Today I am going to learn about HTML and CSS!**\</p\>**

Off Topic

<p>You should know this before proceeding</p>

Attributes of <tags>

- We can give properties / attributes to tags
- We write these inside the tag opening after the tag name
- We can write multiple attributes and the order doesn't matter
- For example:

  <p name="para">name is the attribute here and para is the value**</p>**

Back to Basic HTML Tags

<p>More important content ahead</p>

HTML Links / Anchor Tag / Hyperlink

- The **\<a\>** tag is used for adding links to the webpage
- **Container Tag** as you can add content inside this!
- For redirecting to a page - use **_href_** attribute (short for hyperlink reference)
- Can be either internal or external links
- For example:

  \<a href="**www.google.com**">Take me to google**\</a\>**

Image Tag

- The **<img />** tag is used for adding images to the webpage
- **Self Closing Tag** as you don't need to add content inside this!
- For image source - use *src* attribute (short for source)
- Can be either internal or external source
- For example:

  ****

Buttons

- The <**button**> tag is used for adding buttons to the webpage
- **Container Tag** as you can add content inside this!
- For example:
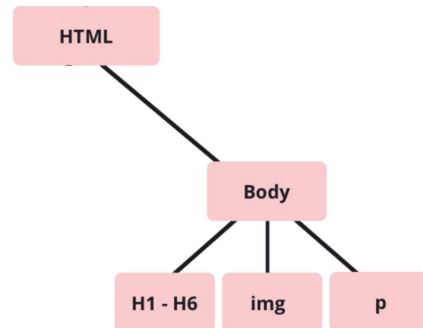
  <**button**>Take me to google</**button**>

Any questions up till now?

Don't feel shy!

Nesting Elements

- Nesting means that **CONTAINER TAGS** in html can contain other tags!
- Because of this, an HTML document ends up being structured as a *"tree"* of elements.
- For example:

<**button**>Take me to google</**button**>

<!DOCTYPE html>

<html>

    <body>

        **

        <*p*>*All this is nested*</*p*>

    </body>

</html>

Let's Practice a Little Bit!

Wohooo! Coding Time

Make a page with 2 different headers, 1 paragraph (which has one link inside it), 1 image, and a button

Structuring Content

<div>Smart Decisions</div>

Section Tag

- The <**section**> tag is used for adding sections to the webpage
- **Container Tag** as you can add content inside this!
- This is used to separate out data and organize your website
- You will understand how useful this is as we move forward
- For now -

  Think of <**section**> **as individual slides of this ppt and the whole presentation as your website!**

- See DubsTech website
- For example:

  <**section**> … </**section**>

Div Tag

- The <**div**> tag is used for adding divisions to the webpage
- **Container Tag** as you can add content inside this!
- Separating content which is not big enough to become a <**section**> or content inside a <**section**>
- See DubsTech website
- For example:
  <**div**> … </**div**>

Any questions up till now?

Don't feel shy!

Let's start with our app now!

Finally!

Write the basic structure!

DOCTYPE, HTML, BODY

Take a closer look at the screenshot!

Draw boxes around the data to identify <section> and <div>

Writing Code!

Follow Along!

That's a lot for a day!

I think we should rest up a bit!