



HTML

Hypertext Markup Language

Class # 1

Introduction

- HTML is the standard markup language for creating web pages. It provides a common syntax and structure that browsers understand.
- HTML describes the structure of a web page by using a series of elements or tags. These tags define different parts of the page, such as headings, paragraphs, lists, images, tables, forms, and more.
- TML elements are organized in a hierarchical structure. There is typically a root element, called the `<html>` tag, which contains other elements like `<head>` and `<body>`. This structure helps browsers understand the relationships between elements.

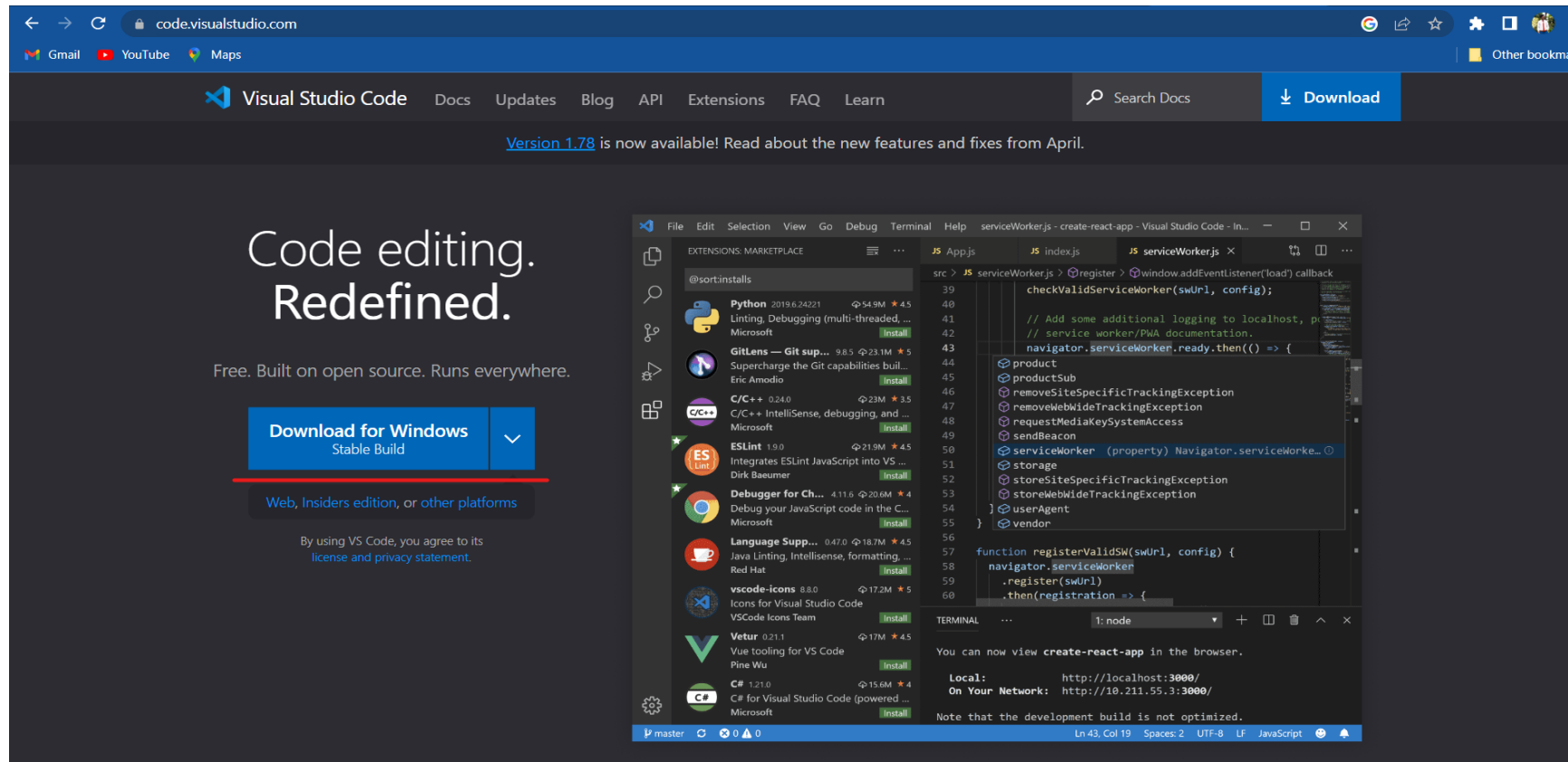
Editor

- The most popular editor used for web development and for many other programming technologies is Visual Studio Code.



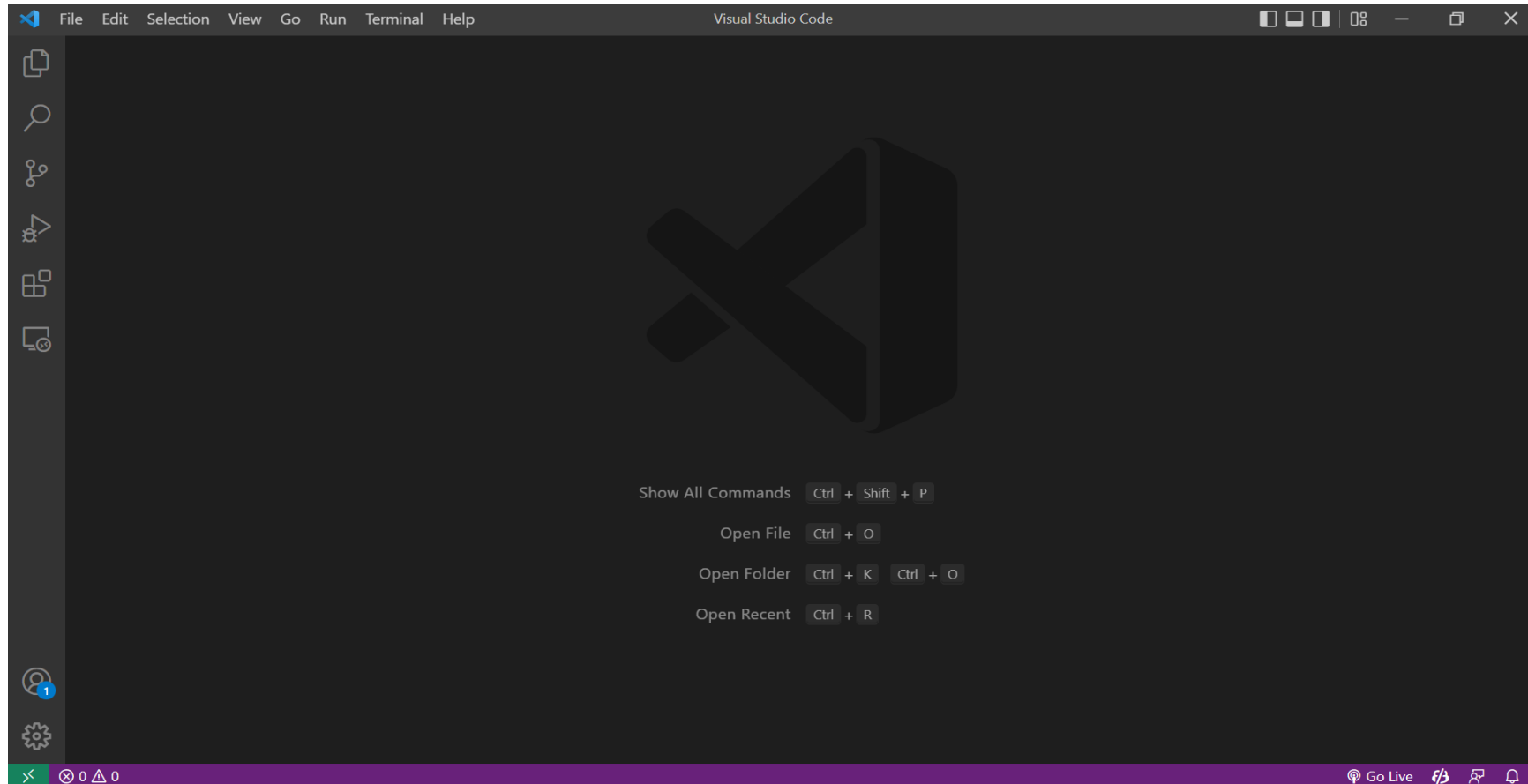
Downloading VS Code

- Go to <https://code.visualstudio.com/> and press the button download for windows.

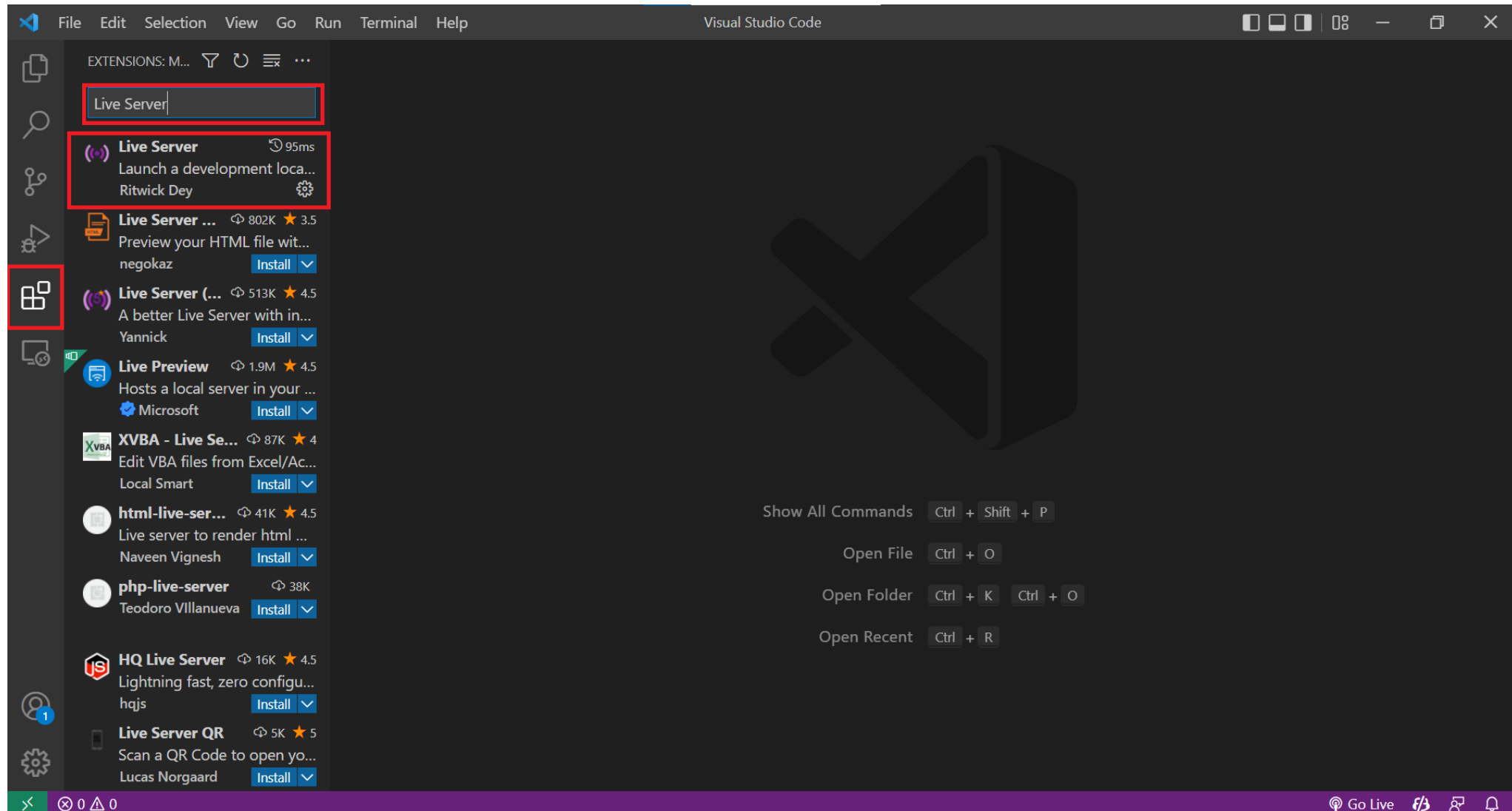


Installing VS Code

- Once the File downloads install it. After installing you will see the screen like this

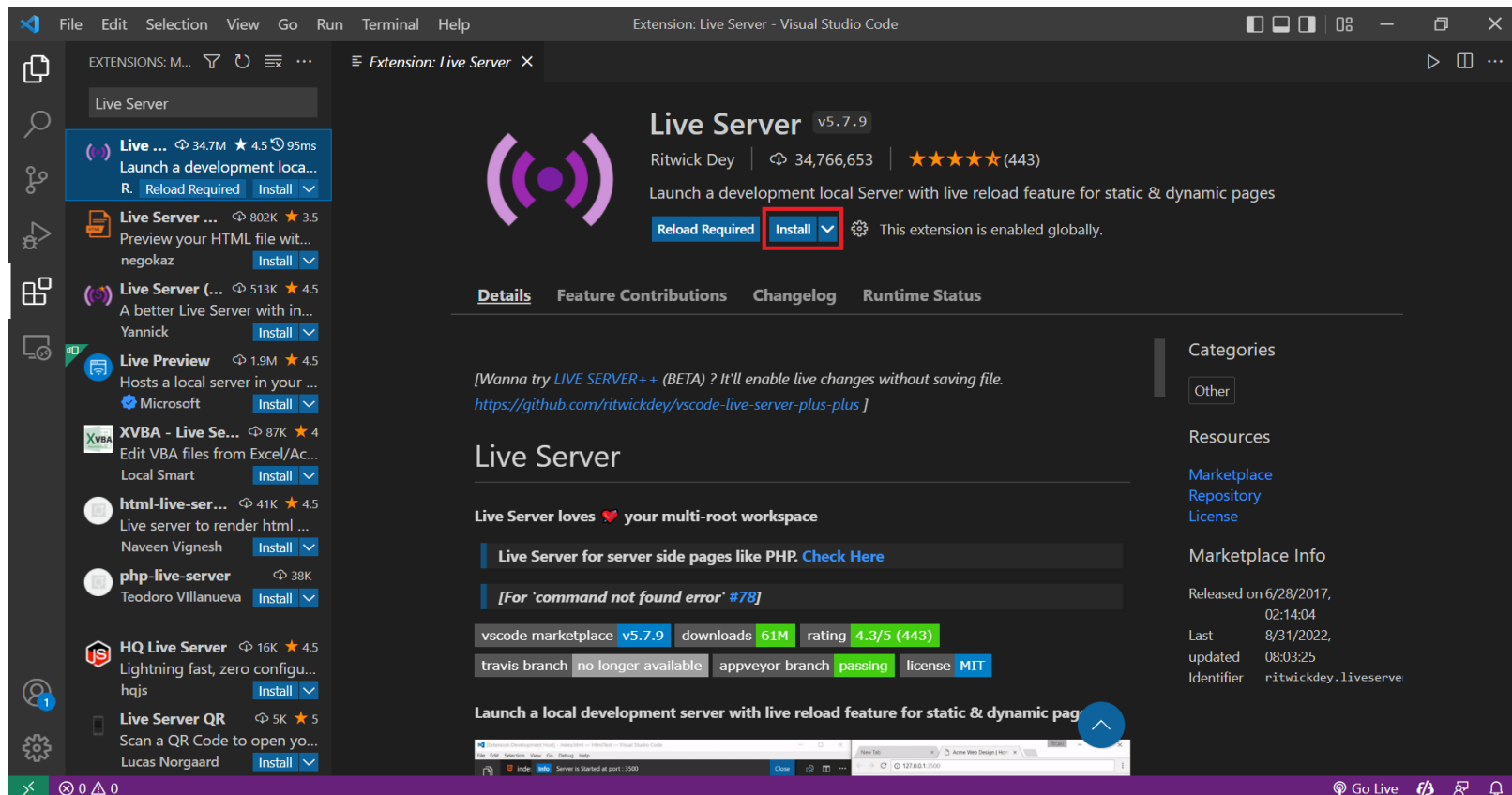


Install Extension



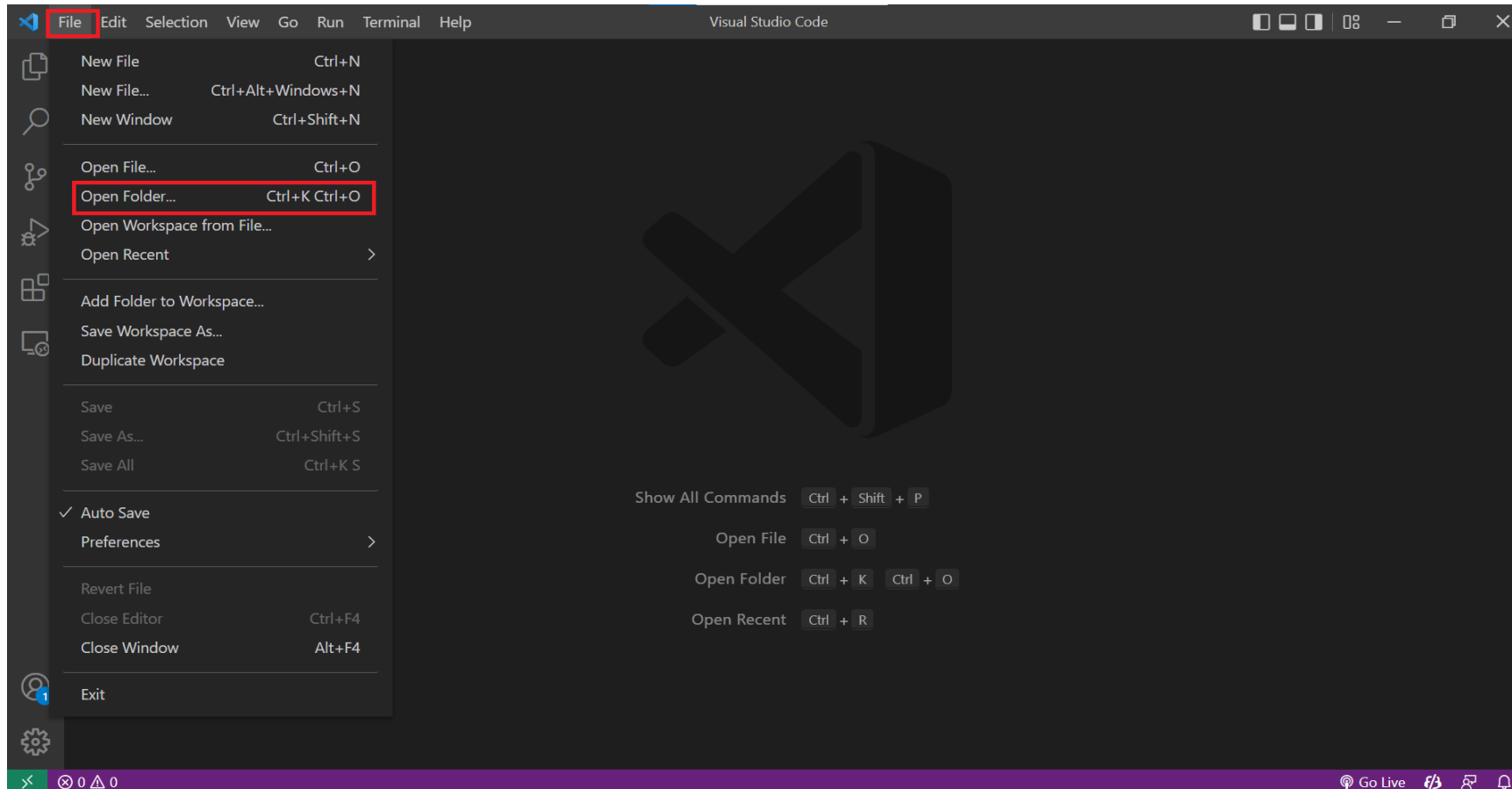
Install Extensions (Cont.)

- Click on the tab Extensions in VS code Search Live server and open Click on the First extension to install it like



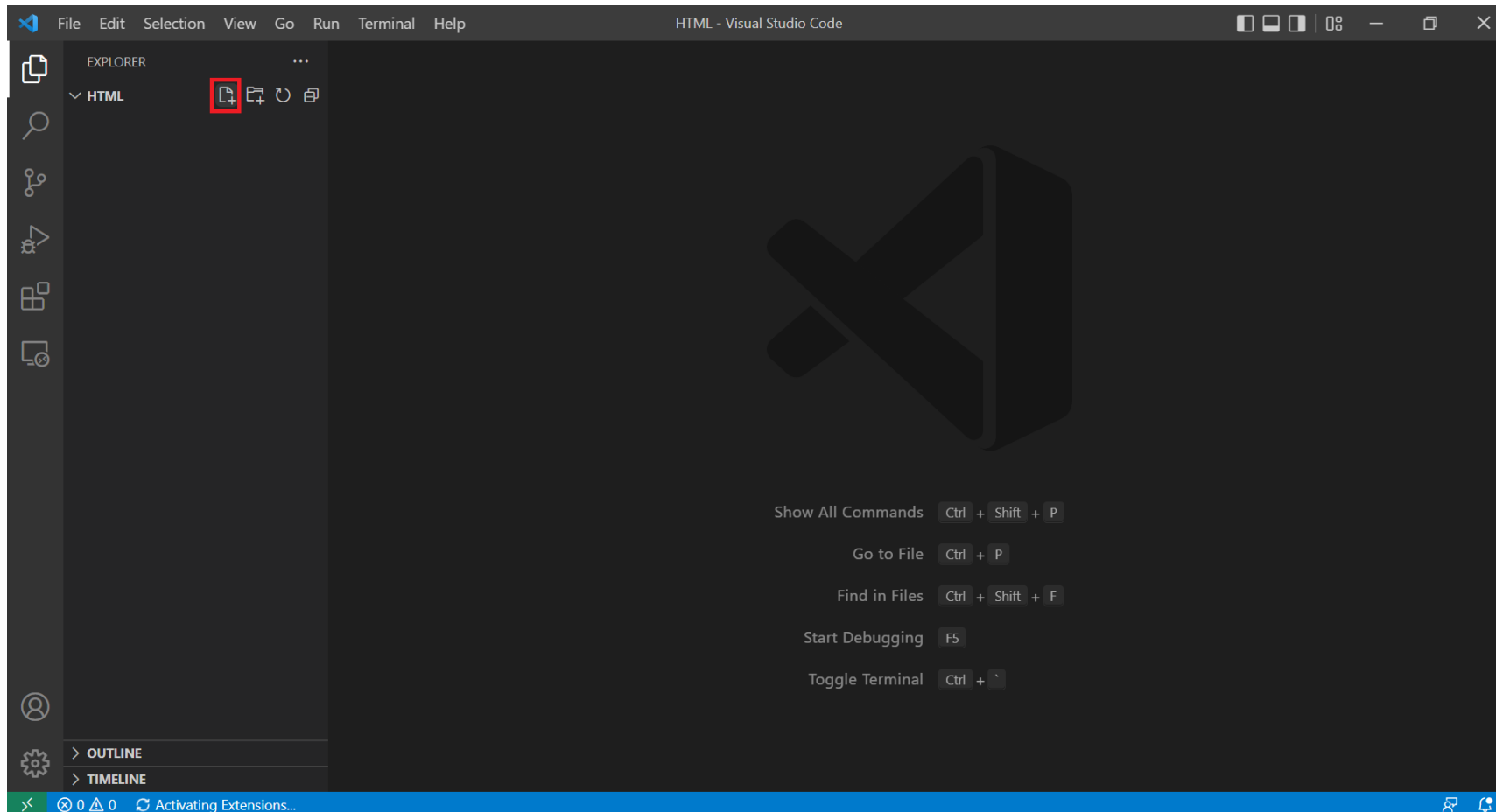
Open Folder

Click on folder and press Open New Folder and open your folder where you want to keep your files



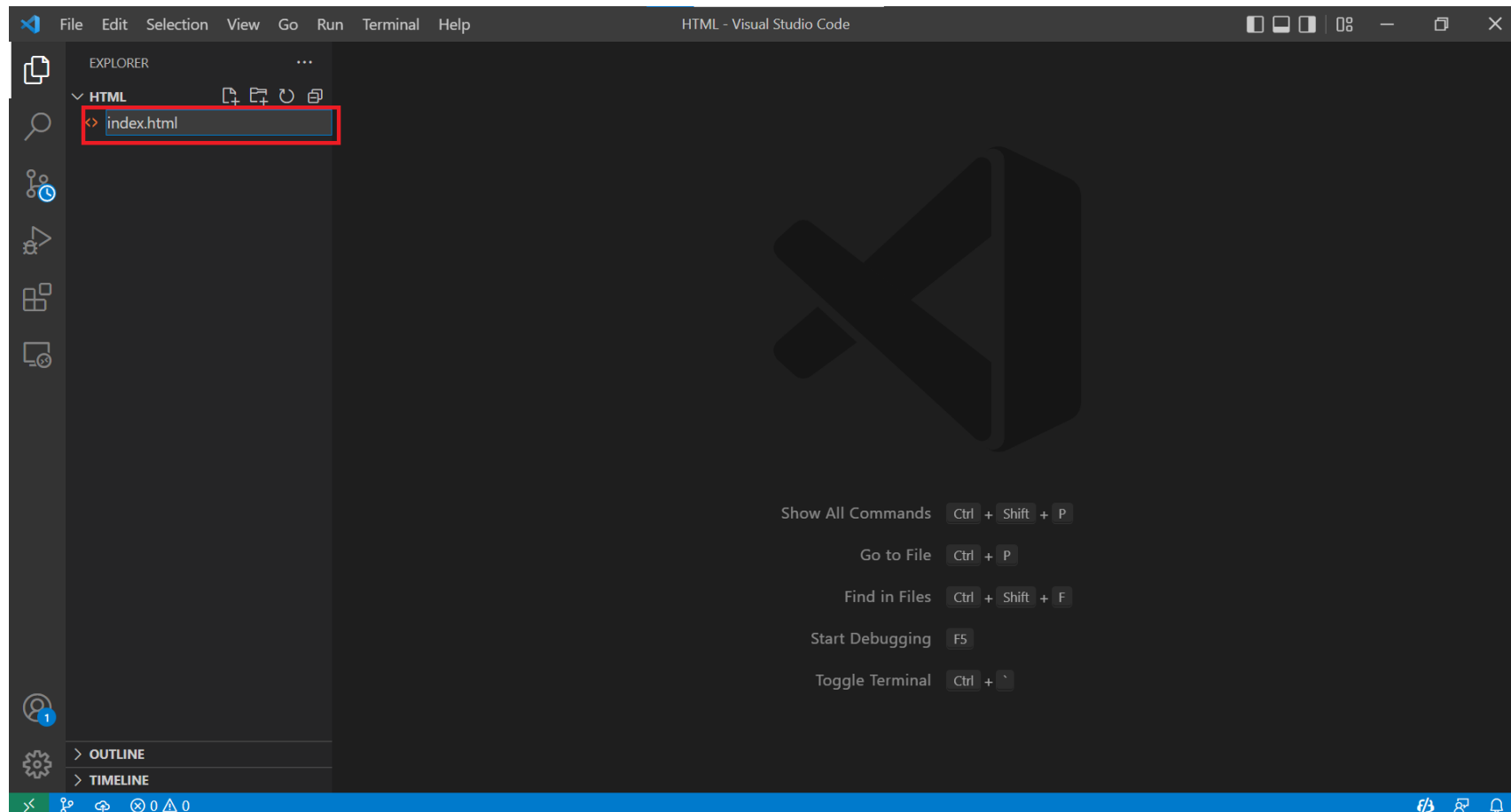
Creating First Html File

After opening of Folder create html file by clicking on this



Creating First Html File (Cont.)

The name of file your starting file should be index.html

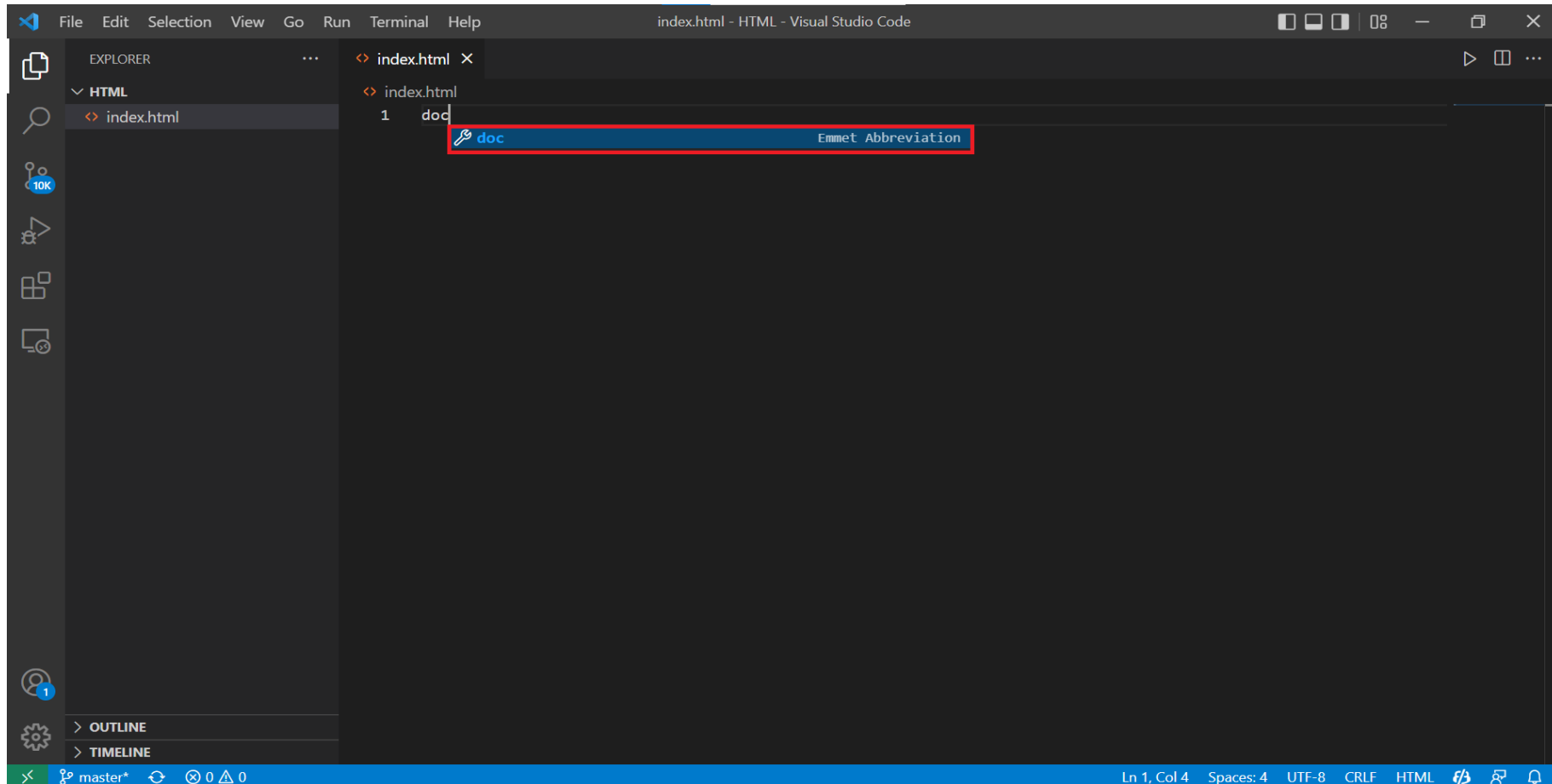


What is Emmet Abbreviation?

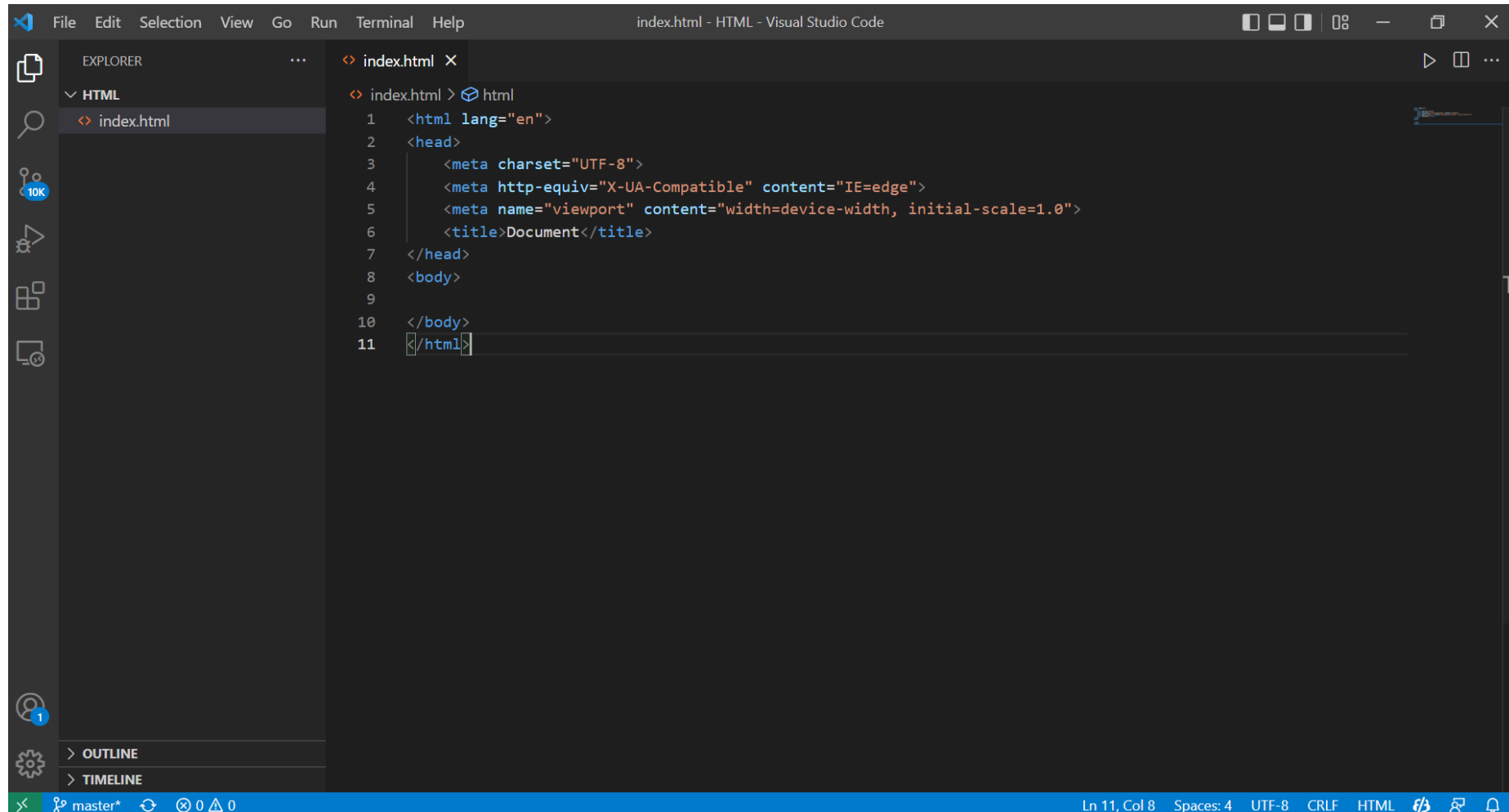
Emmet is a powerful toolkit that allows you to write HTML and CSS code using shorthand abbreviations and then expand them into full code snippets. In Visual Studio Code, Emmet abbreviations are commonly used to speed up web development and improve productivity.

Start HTML Code

Type Doc and you will see the [Emmet Abbreviation](#) option press enter it will write your startup code automatically.



Startup Code



The screenshot shows the Visual Studio Code editor interface. The Explorer panel on the left shows a file named 'index.html' under the 'HTML' folder. The main editor area displays the following HTML code:

```
index.html > html
1 <html lang="en">
2 <head>
3   <meta charset="UTF-8">
4   <meta http-equiv="X-UA-Compatible" content="IE=edge">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Document</title>
7 </head>
8 <body>
9
10 </body>
11 </html>
```

The status bar at the bottom indicates the current file is 'index.html' at line 11, column 8, with 4 spaces, UTF-8 encoding, CRLF line endings, and HTML language mode.

Tags in HTML

HTML (Hypertext Markup Language) consists of a wide range of tags that define different elements and structure the content of a web page. Here are some commonly used HTML tags:

- **<html>**: The root element that encapsulates the entire HTML document.
- **<head>**: Contains meta-information about the HTML document, such as the title, character encoding, CSS stylesheets, and JavaScript code.
- **<title>**: Specifies the title of the HTML document, which is displayed in the browser's title bar or tab.
- **<body>**: Represents the main content of the HTML document and contains all the visible elements of the web page.

Tags in HTML (Cont.)

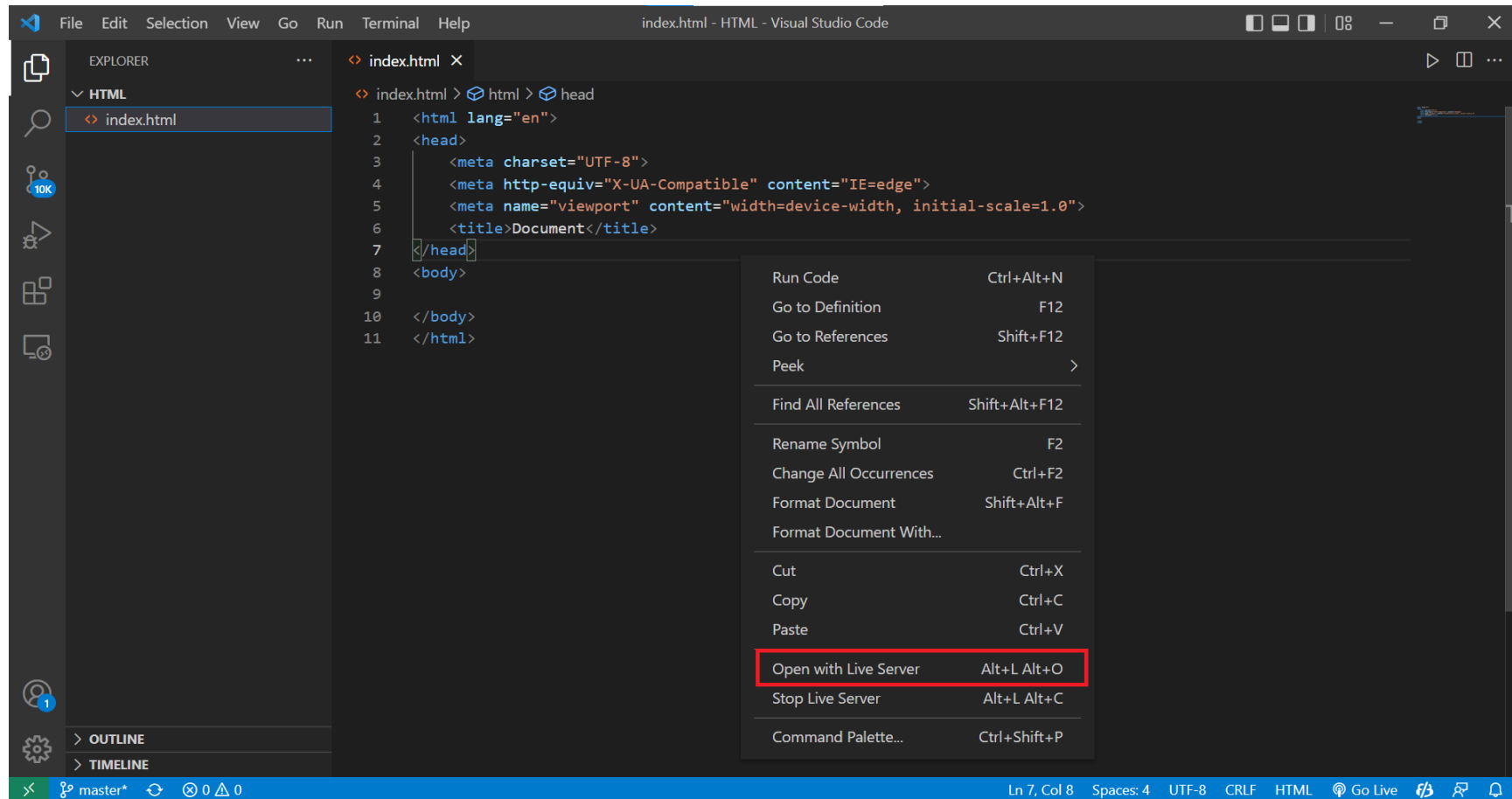
- **<h1> to <h6>**: Headings of different levels, with <h1> being the highest (most important) and <h6> being the lowest.
- **<p>**: Defines a paragraph of text.
- **<a>**: Creates a hyperlink or anchor link to another web page or a specific location within the same page.
- ****: Inserts an image into the web page.
- ****: Represents an unordered (bulleted) list.
- ****: Represents an ordered (numbered) list.
- ****: Defines an item within a list (or).
- **<table>**: Represents a tabular structure with rows (<tr>) and columns (<td> or <th>).

Tags in HTML (Cont.)

- **<form>**: Contains interactive form elements, such as input fields, checkboxes, radio buttons, and buttons.
- **<input>**: Creates an input field for user input (e.g., text, email, password, etc.).
- **<textarea>**: Defines a multi-line text input area.
- **<button>**: Represents a clickable button.
- **<div>**: Defines a division or a container for grouping and styling other elements.
- ****: Inline element used for styling or grouping a specific section of text.
- **<header>, <footer>, <nav>, <section>**: Semantic tags for organizing the structure of a web page.
- **<script>**: Specifies embedded or external JavaScript code to be executed by the browser.

View HTML Page on Chrome

Right Click on screen and press **open with Live Server**



You will see the page like this (Blank Page) after clicking open with live server



Headings in HTML

Use Tag <h1> to <h6> for headings

Syntax is <h>This is Heading 1</h1>

```
<> index.html > html > body > h3
1  <html lang="en">
2  <head>
3      <meta charset="UTF-8">
4      <meta http-equiv="X-UA-Compatible" content="IE=edge">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Document</title>
7  </head>
8  <body>
9      <h1>This is Heading 1</h1>
10     <h2>This is Heading 2</h2>
11     <h3>This is Heading 3</h3>
12 </body>
13 </html>
```

Headings in HTML

This is the output of previous code



This is Heading 1

This is Heading 2

This is Heading 3

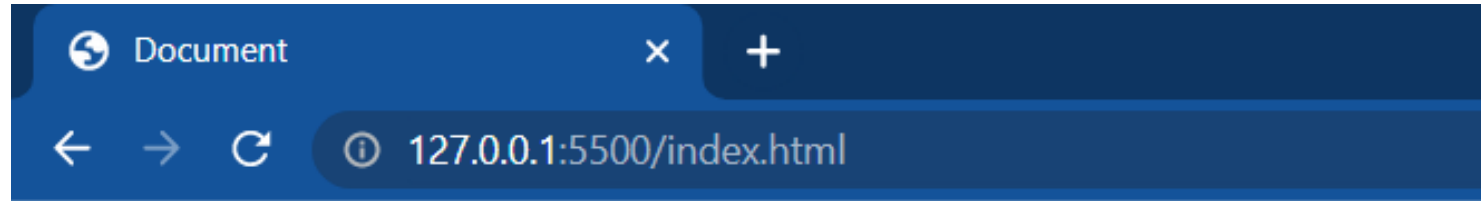
How to add Link in HTML?

Use anchor tag (<a>) for adding link

syntax is `Go to Link`

```
index.html X
index.html > html > body > a
1  <html lang="en">
2  <head>
3      <meta charset="UTF-8">
4      <meta http-equiv="X-UA-Compatible" content="IE=edge">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Document</title>
7  </head>
8  <body>
9      <h1>This is Heading 1</h1>
10     <h2>This is Heading 2</h2>
11     <h3>This is Heading 3</h3>
12     <a href="www.google.com">Go to Google</a>
13 </body>
14 </html>
```

How to add Link in HTML?



This is Heading 1

This is Heading 2

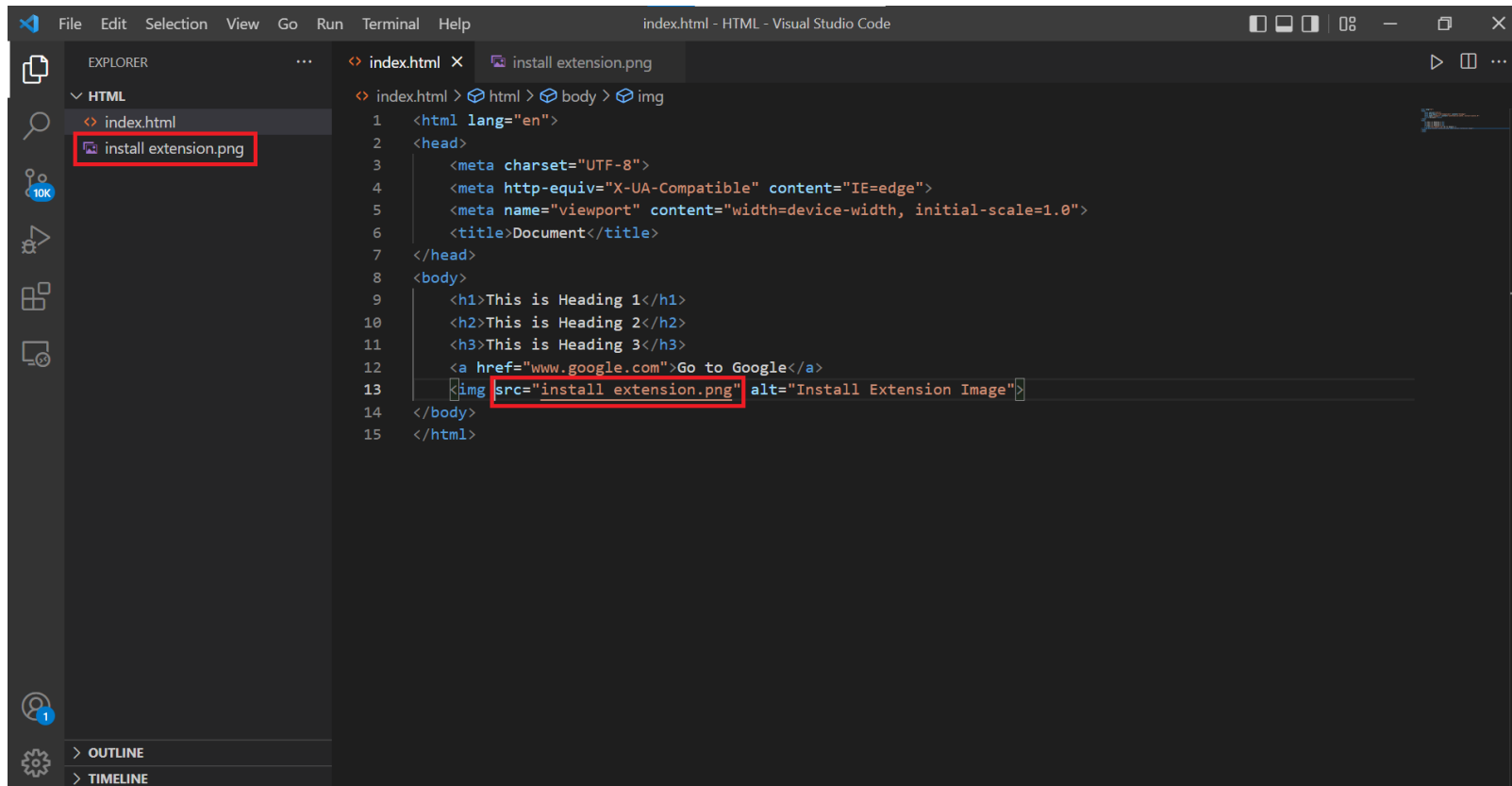
This is Heading 3

[Go to Google](#)

How to Insert Image in HTML?

You can insert image in html using tag.

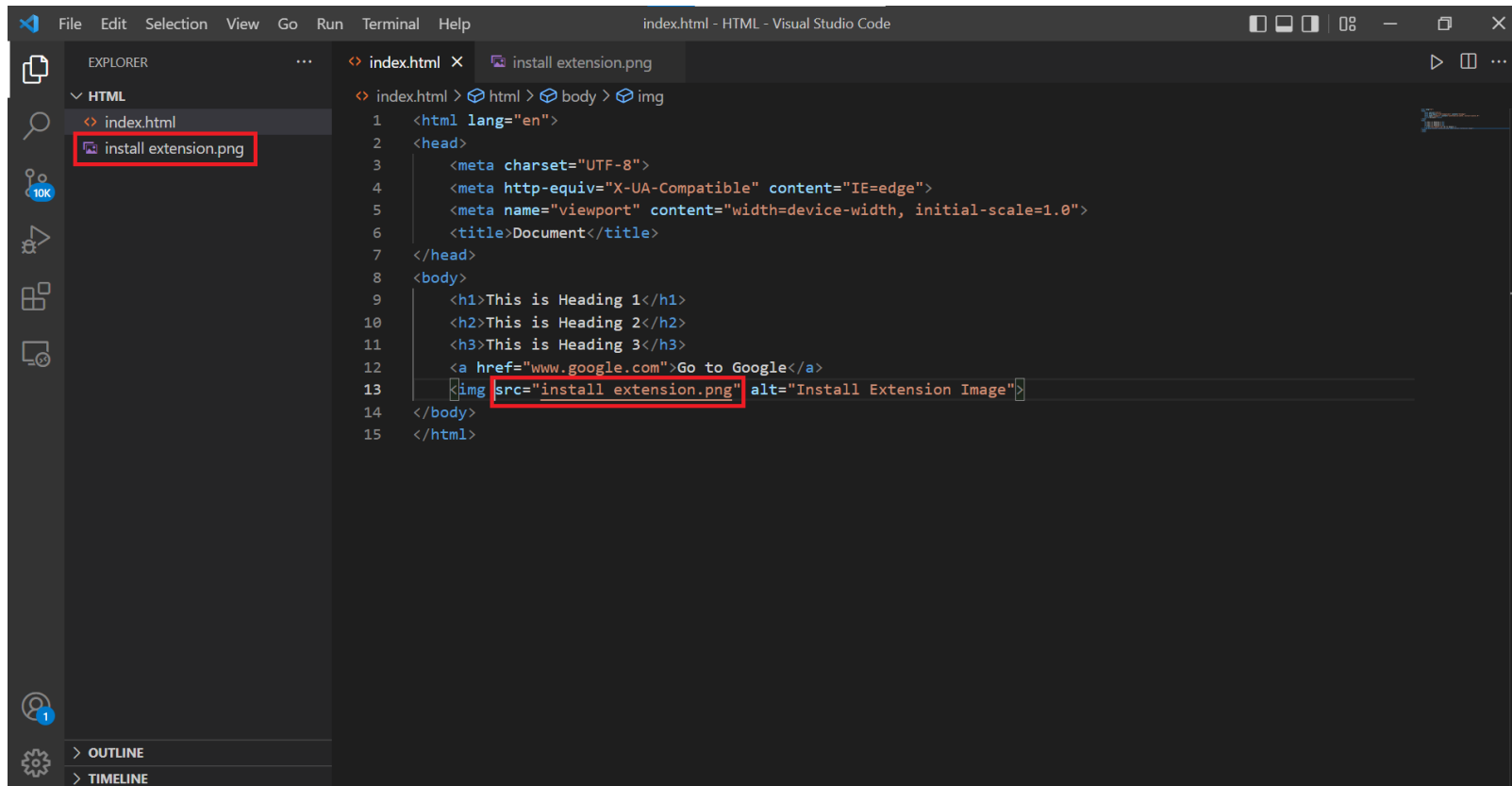
Syntax is ``



How to Insert Image in HTML?

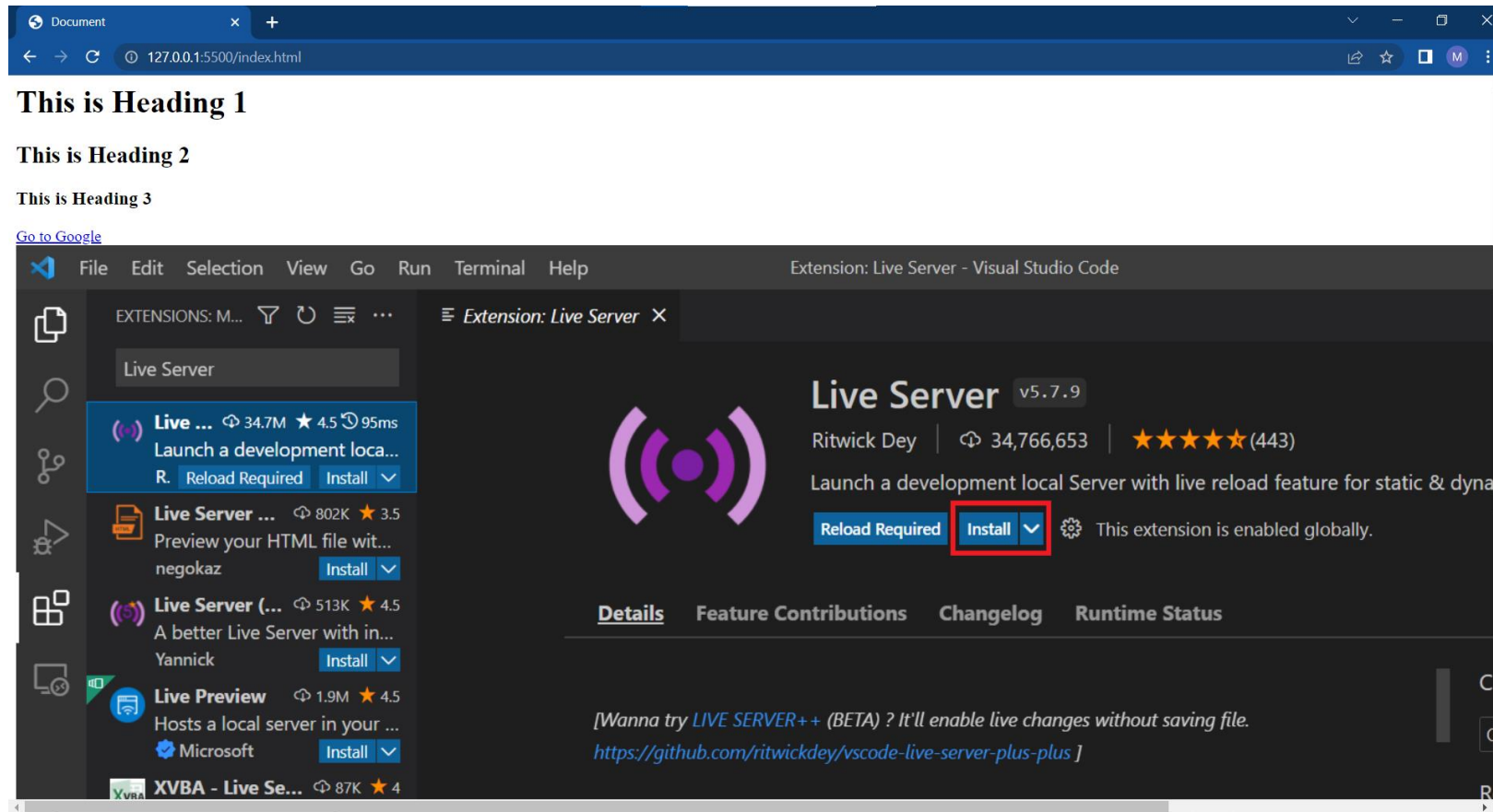
You can insert image in html using tag.

Syntax is ``



How to Insert Image in HTML?

In the tag, the alt attribute is used to provide alternative text for an image.

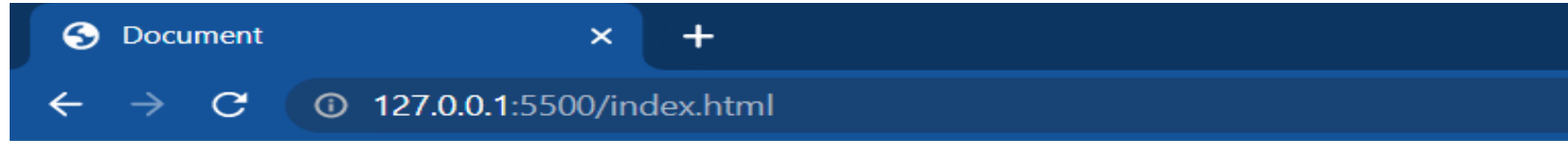


As you see in previous slide the Size of Image is very large and its looking rough so **how to manage size of image?**

Add width or Height in img tag like

```
<> index.html X  install extension.png
<> index.html > html
1  <html lang="en">
2  <head>
3      <meta charset="UTF-8">
4      <meta http-equiv="X-UA-Compatible" content="IE=edge">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Document</title>
7  </head>
8  <body>
9      <h1>This is Heading 1</h1>
10     <h2>This is Heading 2</h2>
11     <h3>This is Heading 3</h3>
12     <a href="www.google.com">Go to Google</a>
13     
14 </body>
15 </html>
```

Now you can see that the size of image is reduced.

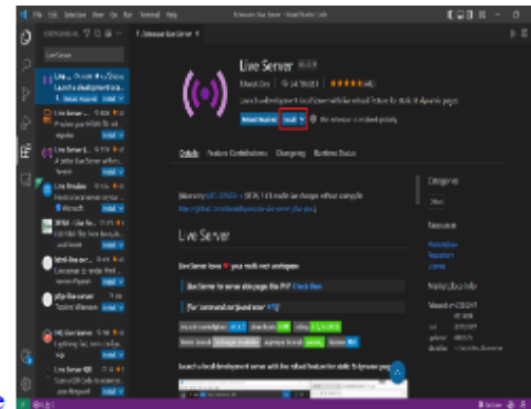


This is Heading 1

This is Heading 2

This is Heading 3

[Go to Google](#)



Width & Length Units in HTML

- **Pixels (px):** The most commonly used unit for specifying dimensions in HTML is pixels. Pixel values represent specific points on the screen and are denoted by the unit "px". For example, height="200px" and width="300px".
- **Percent (%):** The percent unit allows you to specify the dimensions relative to the parent element's size. For example, height="50%" will set the height of the element to 50% of its parent's height.

Width & Length Units in HTML

- **Viewport Units (vh and vw):** The viewport units are relative to the size of the browser window. The vh unit represents a percentage of the viewport height, while the vw unit represents a percentage of the viewport width. For example, height="50vh" will set the height of the element to 50% of the viewport height.
- **em and rem:** These units are relative to the font-size of the element or the root element, respectively. They can be used for specifying the dimensions based on the text size. For example, height="2em" will set the height to twice the font size of the element.
- **Absolute Units:** HTML also supports various absolute units for dimensions, such as inches (in), centimeters (cm), millimeters (mm), points (pt), and picas (pc). These units are less commonly used in web development but can be used when precise measurements are required.

Paragraphs in HTML

To add paragraph in HTML use tag <p>

Syntax is <p>Paragraph text</p>

```
<> index.html X install extension.png
<> index.html > html > body > p
1 <html lang="en">
2 <head>
3   <meta charset="UTF-8">
4   <meta http-equiv="X-UA-Compatible" content="IE=edge">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Document</title>
7 </head>
8 <body>
9   <h1>This is Heading 1</h1>
10  <h2>This is Heading 2</h2>
11  <h3>This is Heading 3</h3>
12  <a href="www.google.com">Go to Google</a>
13  
14  <p>Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the ind
15      It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, a
16      It is a long established fact that a reader will be distracted by the readable content of a page when
17  </p>
18 </body>
19 </html>
```

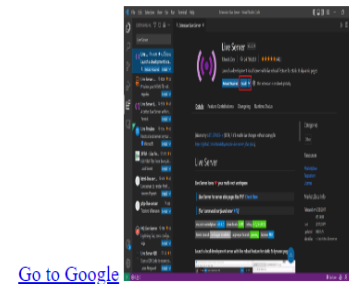
Paragraphs in HTML



This is Heading 1

This is Heading 2

This is Heading 3



Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum. It is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout. The point of using Lorem Ipsum is that it has a more-or-less normal distribution of letters, as opposed to using 'Content here, content here', making it look like readable English. Many desktop publishing packages and web page editors now use Lorem Ipsum as their default model text, and a search for 'lorem ipsum' will uncover many web sites still in their infancy. Various versions have evolved over the years, sometimes by accident, sometimes on purpose (injected humour and the like).

UL & li Tags

- The `` tag is used to define an unordered list. It stands for "unordered list." It should be placed at the beginning and end of the list.
- The `` tag is used to define each item in the list. It stands for "list item." Each list item should be placed between the opening and closing `` tags. In the example above, "Item 1," "Item 2," and "Item 3" are the list items.

UL & li Tags

```
<> index.html X install extension.png
<> index.html > html > body > ul > li
1  <html lang="en">
2  <head>
3    <meta charset="UTF-8">
4    <meta http-equiv="X-UA-Compatible" content="IE=edge">
5    <meta name="viewport" content="width=device-width, initial-scale=1.0">
6    <title>Document</title>
7  </head>
8  <body>
9    <h1>This is Heading 1</h1>
10   <h2>This is Heading 2</h2>
11   <h3>This is Heading 3</h3>
12   <a href="www.google.com">Go to Google</a>
13   
14   <p>Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the ind
15       It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, a
16       It is a long established fact that a reader will be distracted by the readable content of a page when
17   </p>
18   <ul>
19     <li>Item 1</li>
20     <li>Item 2</li>
21     <li>Item 3</li>
22   </ul>
23 </body>
24 </html>
```

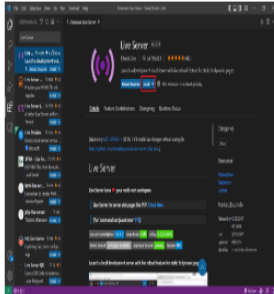
UL & li Tags



This is Heading 1

This is Heading 2

This is Heading 3



[Go to Google](#)

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- Item 1
- Item 2
- Item 3

Table in HTML

- HTML tables allow web developers to arrange data into rows and columns.
- Syntax of table is

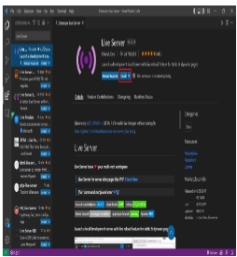
```
<table>
  <thead>
    <tr>
      <th>Column 1</th>
      <th>Column 2</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>Row 1, Cell 1</td>
      <td>Row 1, Cell 2</td>
    </tr>
  </tbody>
</table>
```

Table in HTML

This is Heading 1

This is Heading 2

This is Heading 3



Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum. It is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout. The point of using Lorem Ipsum is that it has a more-or-less normal distribution of letters, as opposed to using 'Content here, content here', making it look like readable English. Many desktop publishing packages and web page editors now use Lorem Ipsum as their default model text, and a search for 'lorem ipsum' will uncover many web sites still in their infancy. Various versions have evolved over the years, sometimes by accident, sometimes on purpose (injected humour and the like).

- Item 1
- Item 2
- Item 3

Column 1	Column 2
Cell 2	Cell 2

Table Terms

<u><table></u>	Defines a table
<u><th></u>	Defines a header cell in a table
<u><tr></u>	Defines a row in a table
<u><td></u>	Defines a cell in a table
<u><caption></u>	Defines a table caption
<u><colgroup></u>	Specifies a group of one or more columns in a table for formatting
<u><col></u>	Specifies column properties for each column within a <colgroup> element
<u><thead></u>	Groups the header content in a table
<u><tbody></u>	Groups the body content in a table
<u><tfoot></u>	Groups the footer content in a table

Overview

In Class 1 We have learn about

- How to Download & install VS Code.
- Setting Up VS Code Environment
- Creating HTML File
- Run HTML File on Google
- Tags in HTML
- Heading in HTML
- Images in HTML
- Links & Paragraphs in HTML

Overview

In Class 1 We have learn about

- ul & li tags
- Tables in HTML

Task For Class # 1

