

Web Programming Lab

HTML&CSS

Week 2



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Download Visual Studio Code

- <https://code.visualstudio.com/download>

Download Visual Studio Code

Free and built on open source. Integrated Git, debugging and extensions.



↓ Windows


Windows 10, 11

User Installer x64 Arm64

System Installer x64 Arm64

.zip x64 Arm64

CLI x64 Arm64



↓ .deb

Debian, Ubuntu

↓ .rpm

Red Hat, Fedora, SUSE


.deb x64 Arm32 Arm64

.rpm x64 Arm32 Arm64

.tar.gz x64 Arm32 Arm64

Snap Snap Store

CLI x64 Arm32 Arm64



↓ Mac

macOS 10.15+

.zip Intel chip Apple silicon Universal

CLI Intel chip Apple silicon



Install VScode Extension: Live Server

- Click the extension button on the left, search “Live Server”
- Click install

The screenshot shows the VS Code interface with the Extensions Marketplace open. The search bar contains 'live server'. The 'Live Server' extension by Ritwick Dey is highlighted. The extension details panel shows the extension's icon, name, version (v5.7.9), author (Ritwick Dey), download count (52,906,654), and rating (4.4/5 from 491 reviews). The description states: 'Launch a development local Server with live reload feature for static & dynamic pages'. Below the description are buttons for 'Disable', 'Uninstall', and 'Auto Update'. The 'DETAILS' tab is selected, showing a link to the GitHub repository and a note about the 'LIVE SERVER++ (BETA)' version. The 'FEATURES' and 'CHANGELOG' tabs are also visible. The bottom status bar shows the extension's version, download count, rating, and license (MIT).



Install VScode Extension: Color Picker

The screenshot displays the Visual Studio Code (VS Code) interface. On the left, the 'EXTENSIONS: MARKETPLACE' sidebar shows a search for 'color picker'. The 'Color Picker' extension by 'anseki' is highlighted, showing its icon, description, and 'Install' button. The main panel shows the extension's details, including its version (v0.4.5), download count (1,873,381), and star rating (116). Below this, the 'Color Picker for VS Code' section provides instructions on how to use the extension, mentioning the 'Convert Color' command and the 'Pick Color' command. A code editor window is open, showing a CSS file named 'sample.scss'. The 'background-color' property is highlighted, and a color picker dialog is visible, showing the selected color as '#db6923'.

Color Picker v0.4.5
anseki | 1,873,381 | ★★★★★ (116)
Helper with GUI to generate color codes such as CSS color notations.

Details Features

Color Picker for VS Code

Issues 0 open 404 badge not found license MIT

Helper with GUI to generate color codes such as CSS color notations.
And, a command `Convert Color` to change the color notation.

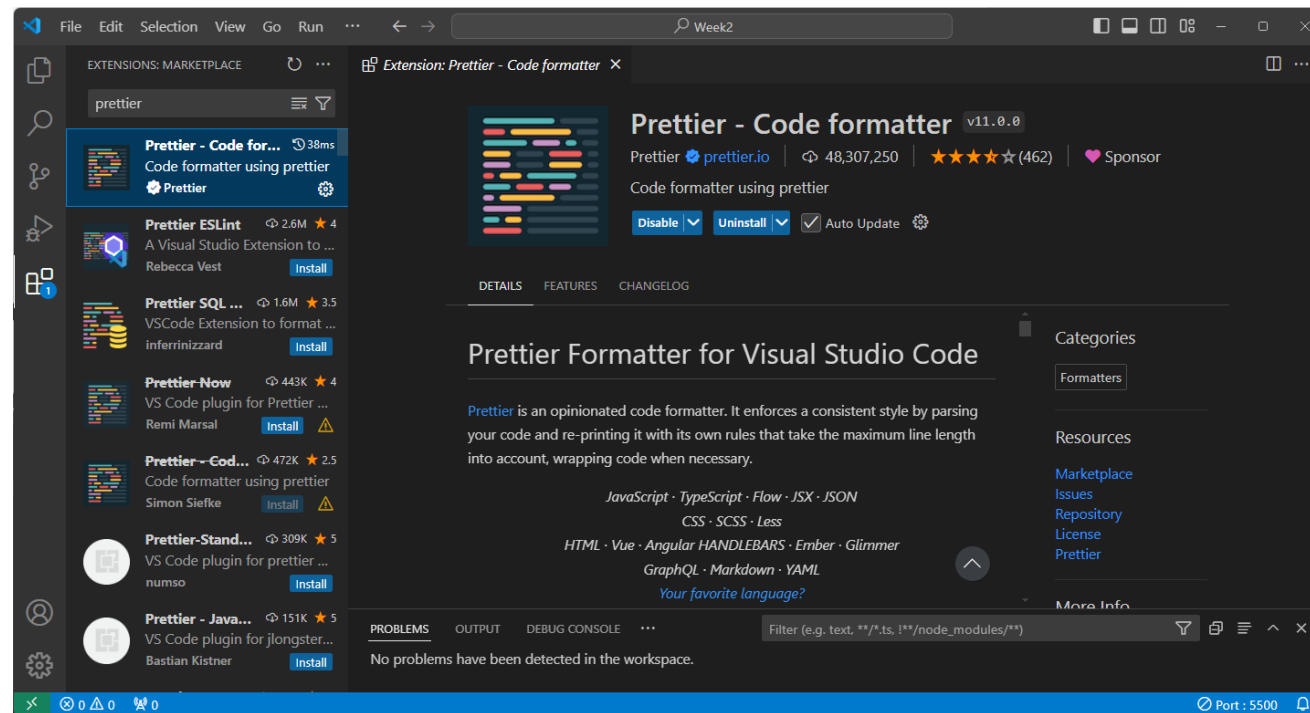
A dialog box is shown by pressing `Alt + C P` keys or command `Pick Color`. If a cursor is positioned on a string that is color notation at that time, that string is selected as target for editing.

```
sample.scss
3 body {
4   margin: 0;
5   background-color: #db6923;
6 }
7
8 /**
9  * Address variable `h1` font-size and margin within `section` and `article`
10  * contexts in Firefox 4+, Safari, and Chrome.
11  */
12
13 h1 {
14   font-size: 2em;
15   margin: 0.67em 0;
16 }
```



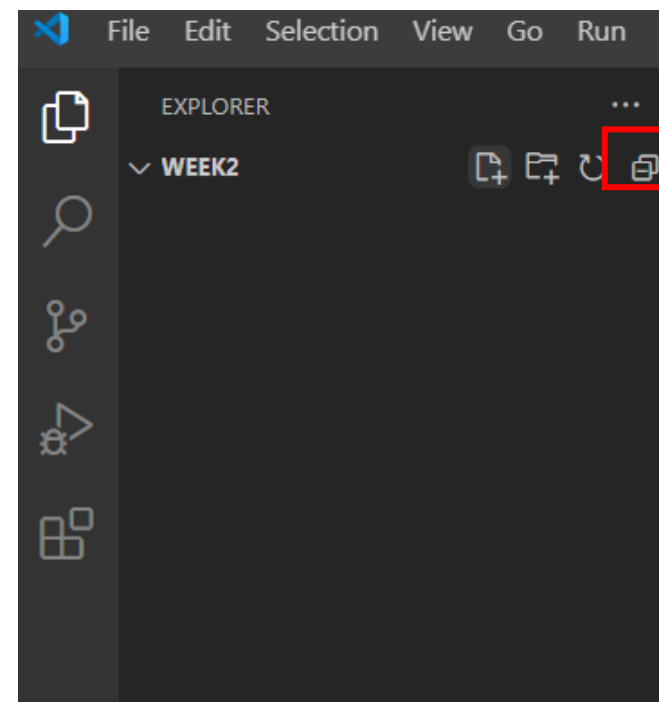
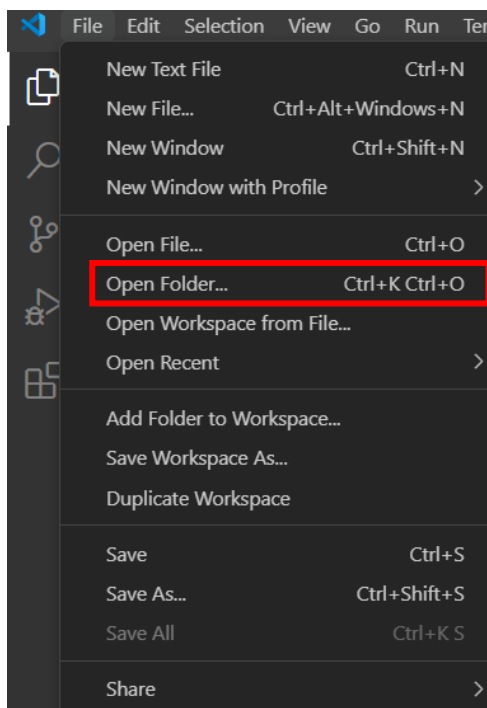
Optional) Install VSCode Extension: Prettier

- This is non-mandatory procedure
- If you want to format your code faster, Install “Prettier” extension



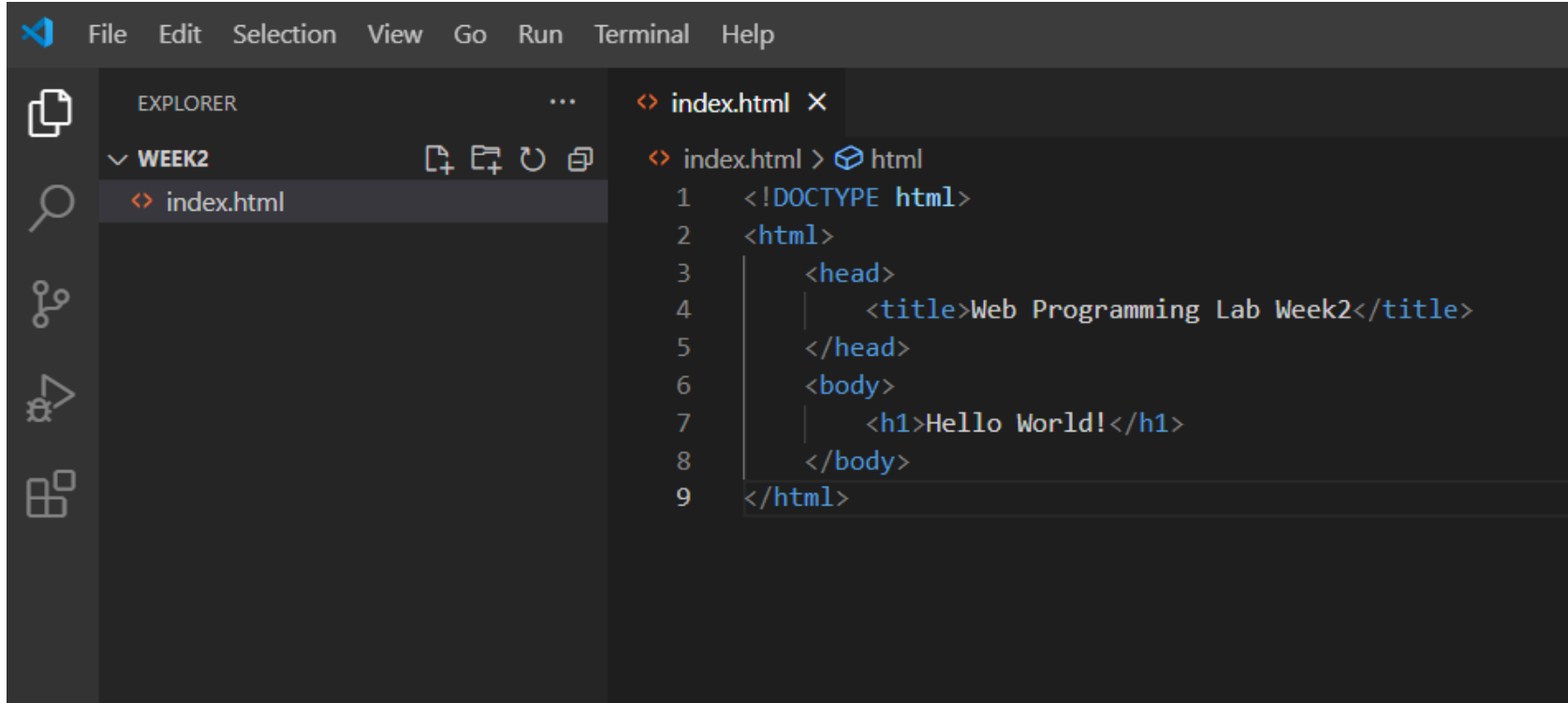
Build Your First Webpage

- Create a folder on your computer for the html project
- File -> Open Folder to browse to the created folder



Build Your First Webpage

- Type the following code in the index.html file

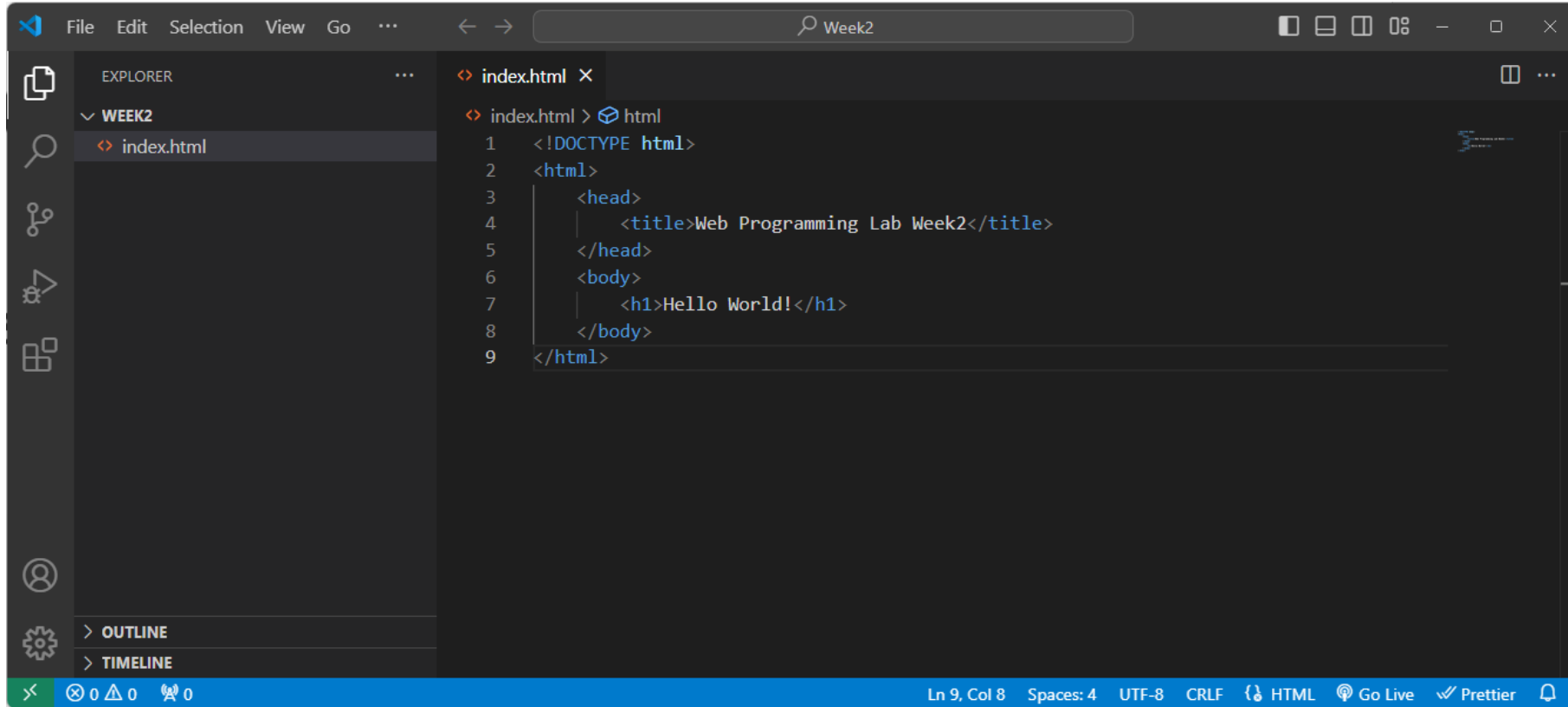


The screenshot shows the Visual Studio Code editor interface. The Explorer sidebar on the left shows a folder named 'WEEK2' containing a file named 'index.html'. The main editor area displays the content of 'index.html' with the following code:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Web Programming Lab Week2</title>
  </head>
  <body>
    <h1>Hello World!</h1>
  </body>
</html>
```


Build Your First Webpage

- Type the following code in the index.html file



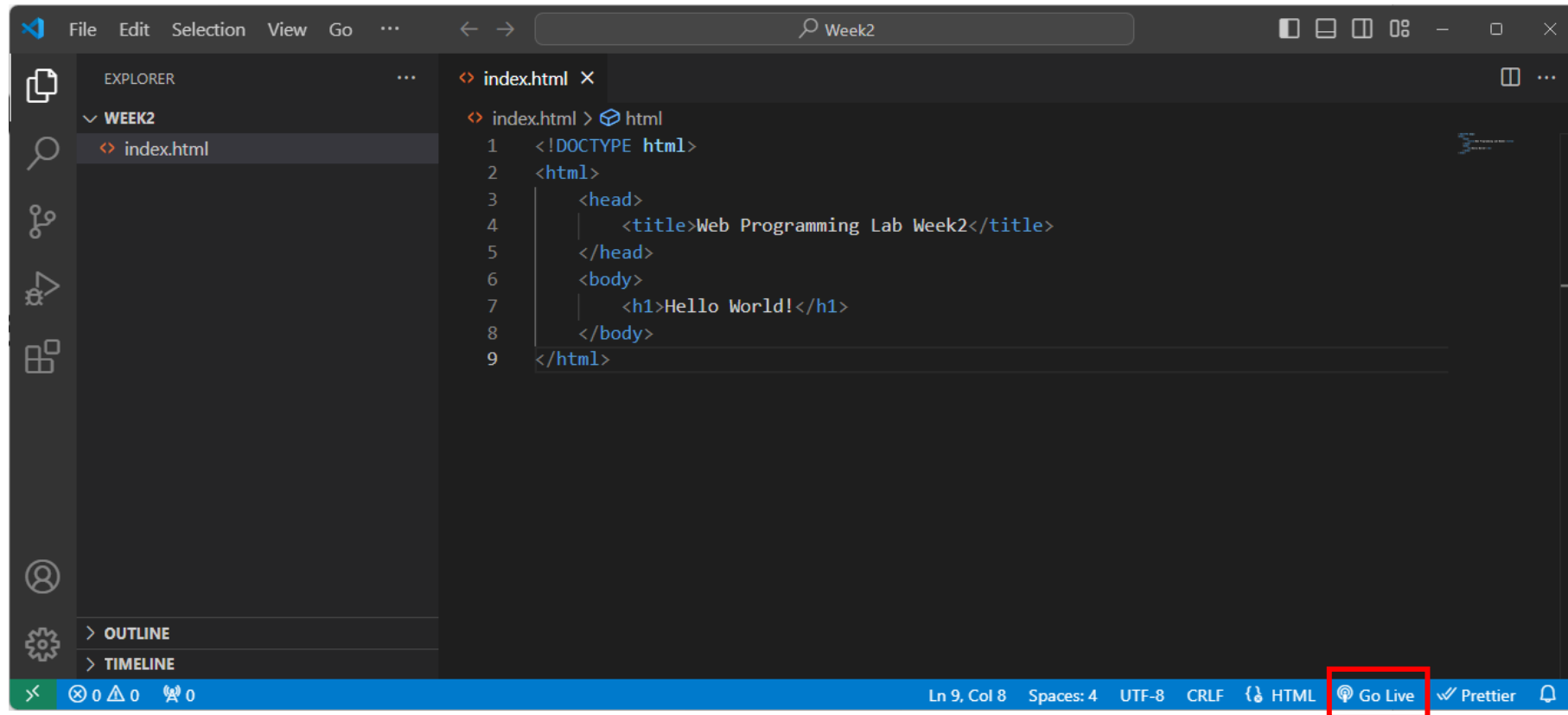
The screenshot shows the Visual Studio Code editor interface. The Explorer sidebar on the left shows a project named 'WEEK2' with a file named 'index.html'. The main editor area displays the content of 'index.html' with the following HTML code:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE html>
<html>
  <head>
    <title>Web Programming Lab Week2</title>
  </head>
  <body>
    <h1>Hello World!</h1>
  </body>
</html>
```

The status bar at the bottom indicates the cursor is at Line 9, Column 8, with 4 spaces, UTF-8 encoding, CRLF line endings, and HTML language mode. It also shows 'Go Live' and 'Prettier' icons.

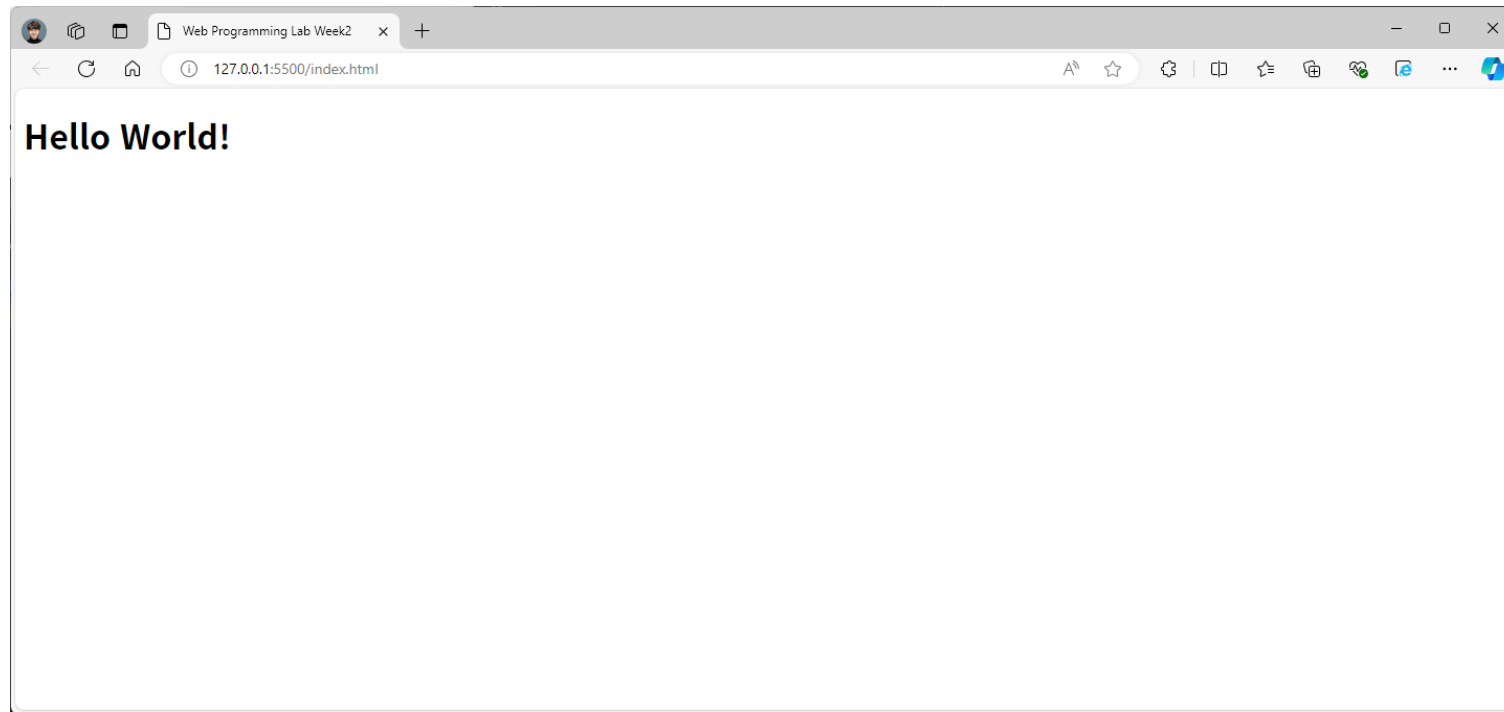
Build Your First Webpage

- Click Go Live button



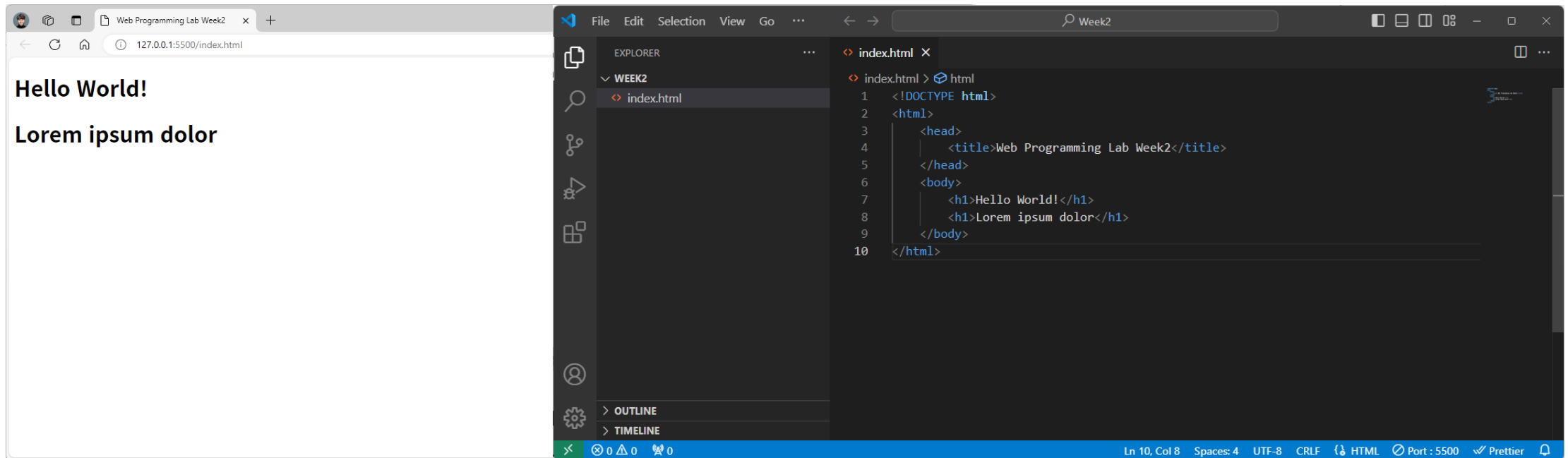
Build Your First Webpage

- Web browser will come up automatically
 - If it doesn't, type 127.0.0.1:5500/index.html into web browser



Build Your First Webpage

- Edit your code and save it (Ctrl+S)
- Changed webpage will be displayed automatically





Character Encoding

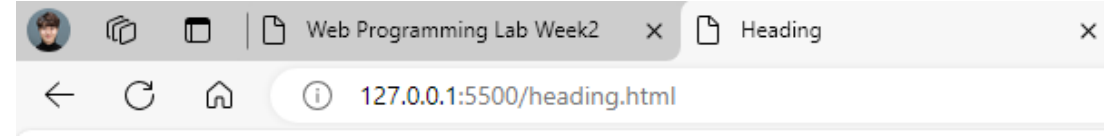
- You don't really need to know what character encoding is in detail
- It defines the set of valid human language characters that can be used in the document
- It is safest to stick to UTF-8
 - A universal character set that allows all characters from all languages

```
<head>  
  <meta charset="UTF-8"/>  
  <title>Web programming Lab</title>  
</head>
```



Headings

```
<> index.html <> heading.html X Settings
<> heading.html > html
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <meta charset="UTF-8"/>
5     <title>Heading</title>
6   </head>
7   <body>
8     <h1>Heading 1</h1>
9     <h2>Heading 2</h2>
10    <h3>Heading 3</h3>
11    <h4>Heading 4</h4>
12    <h5>Heading 5</h5>
13    <h6>Heading 6</h6>
14  </body>
15 </html>
```



Heading 1

Heading 2

Heading 3

Heading 4

Heading 5

Heading 6

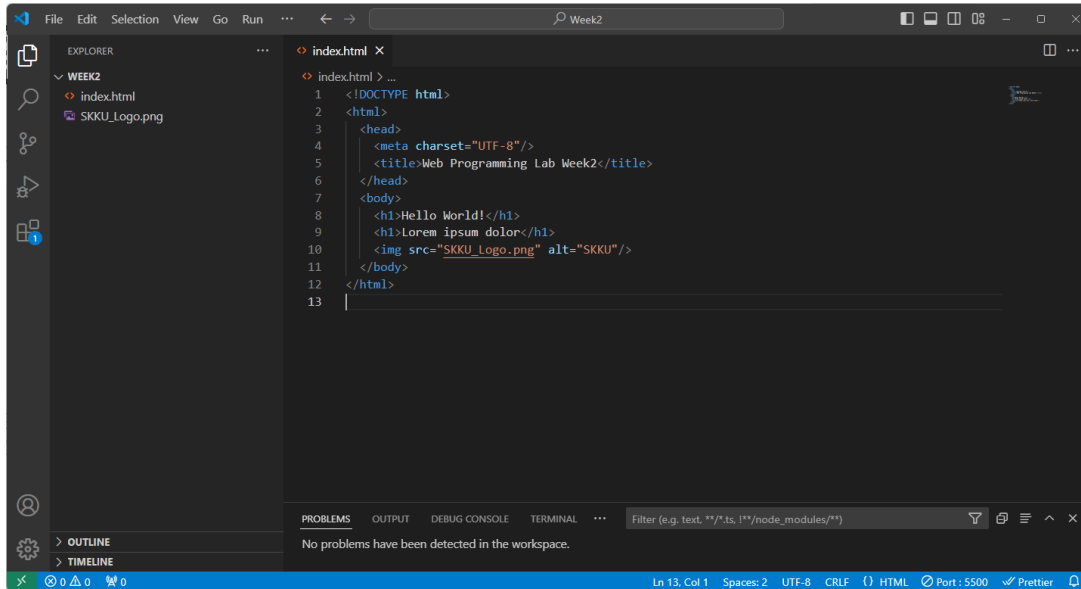


Text Styling

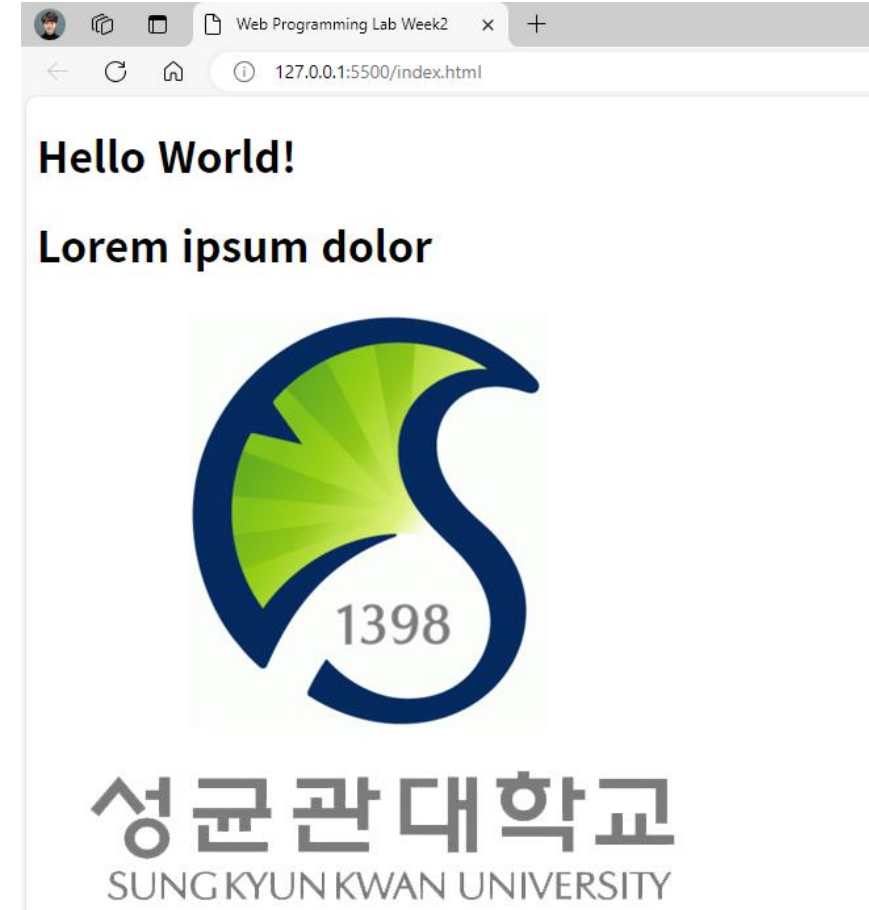
- Formatting text style with following attributes:
 - `` - Bold text
 - `` - Important text
 - `<i>` - Italic text
 - `` - Emphasized text
 - `<mark>` - Marked text
 - `<small>` - Small text
 - `` - Deleted text
 - `<ins>` - Inserted text
 - `<sub>` - Subscript text
 - `<sup>` - Superscript text



Image Element

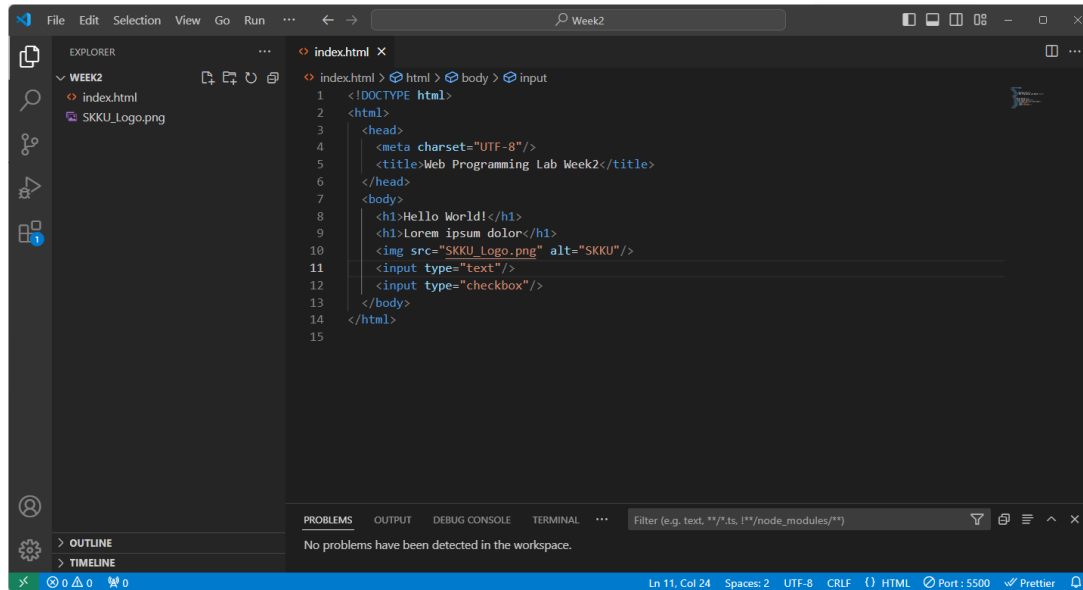


```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <meta charset="UTF-8"/>
5   <title>Web Programming Lab Week2</title>
6 </head>
7 <body>
8   <h1>Hello World!</h1>
9   <h1>Lorem ipsum dolor</h1>
10  
11 </body>
12 </html>
13
```

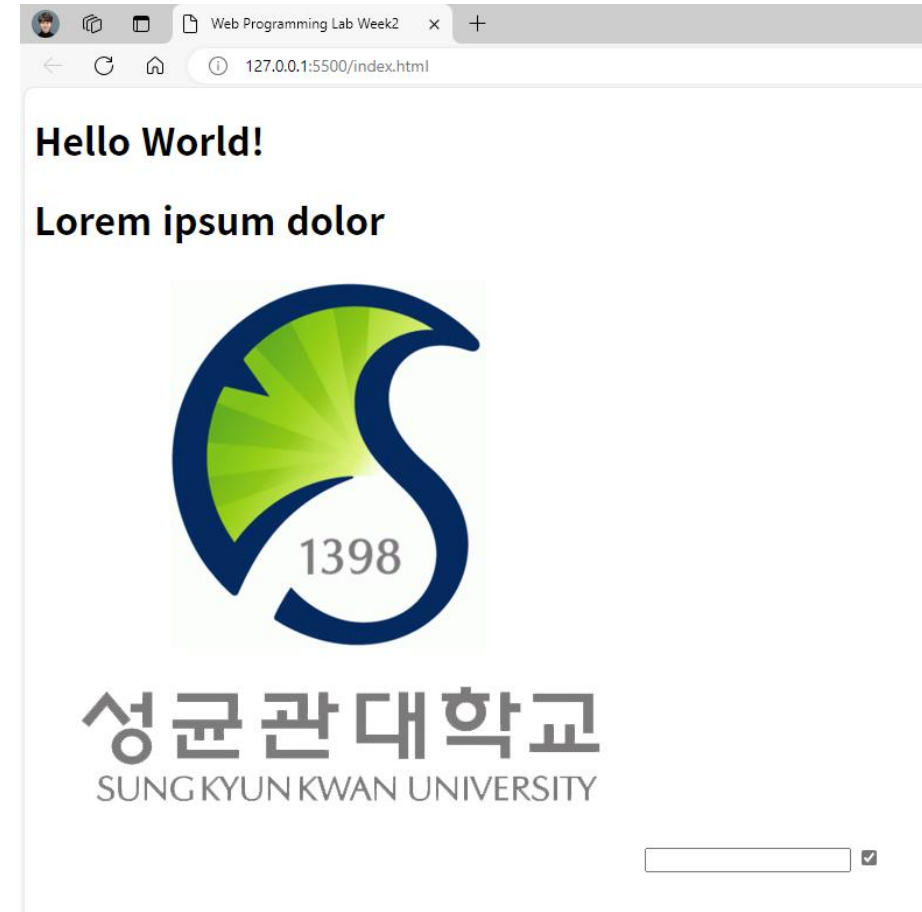




Input Element



```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <meta charset="UTF-8"/>
5   <title>Web Programming Lab Week2</title>
6 </head>
7 <body>
8   <h1>Hello World!</h1>
9   <h1>Lorem ipsum dolor</h1>
10  
11  <input type="text"/>
12  <input type="checkbox"/>
13 </body>
14 </html>
15
```





<div> Element

```
File Edit Selection View Go Run ... Week2
EXPLORER
  WEEK2
    index.html
    SKKU_Logo.png
index.html X
  index.html > html > body > div
  1 <!DOCTYPE html>
  2 <html>
  3 <head>
  4   <meta charset="UTF-8"/>
  5   <title>Web Programming Lab Week2</title>
  6 </head>
  7 <body>
  8   <h1>Hello World!</h1>
  9   <h1>Lorem ipsum dolor</h1>
 10   <div>
 11     
 12   </div>
 13   <input type="text"/>
 14   <input type="checkbox"/>
 15 </body>
 16 </html>
 17
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL ...
Filter (e.g. text, **/*.ts, /**/node_modules/**)
No problems have been detected in the workspace.
Ln 12, Col 11 Spaces: 2 UTF-8 CRLF HTML Port: 5500 Prettier
```





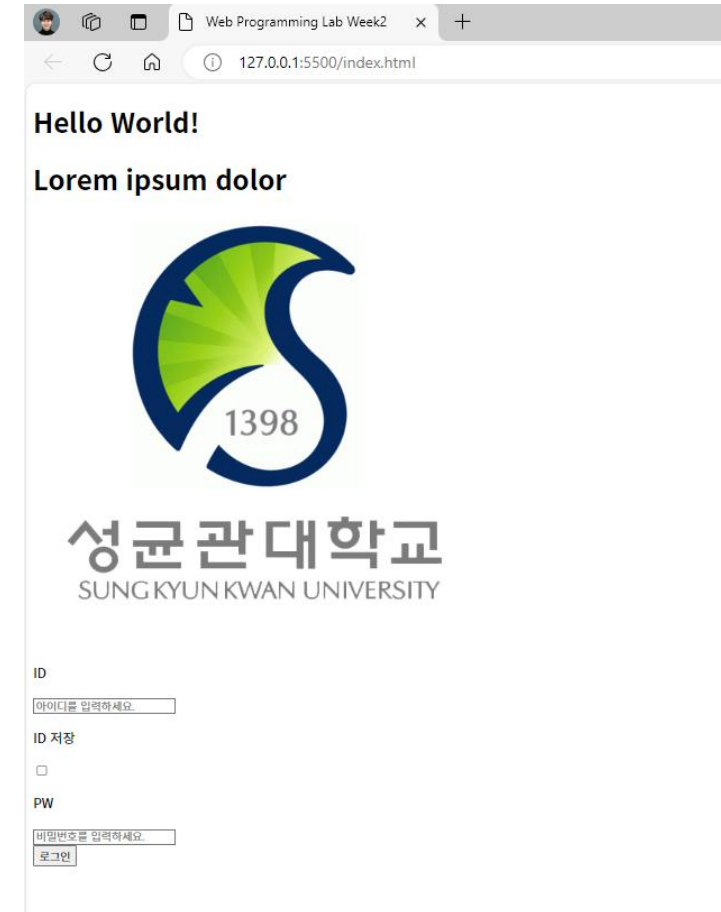
HTML Cheat Sheet

- <https://htmlcheatsheet.com/>
- You can check HTML elements with this page



Personal Work

- Implement webpage same with right figure
- You should use `<button>` element to implement login button
 - `<button>로그인</button>`





CSS Insertion

- We can add CSS code in any combination of three different ways
 - Inline Style Sheet
 - Internal Style Sheet
 - External Style Sheet

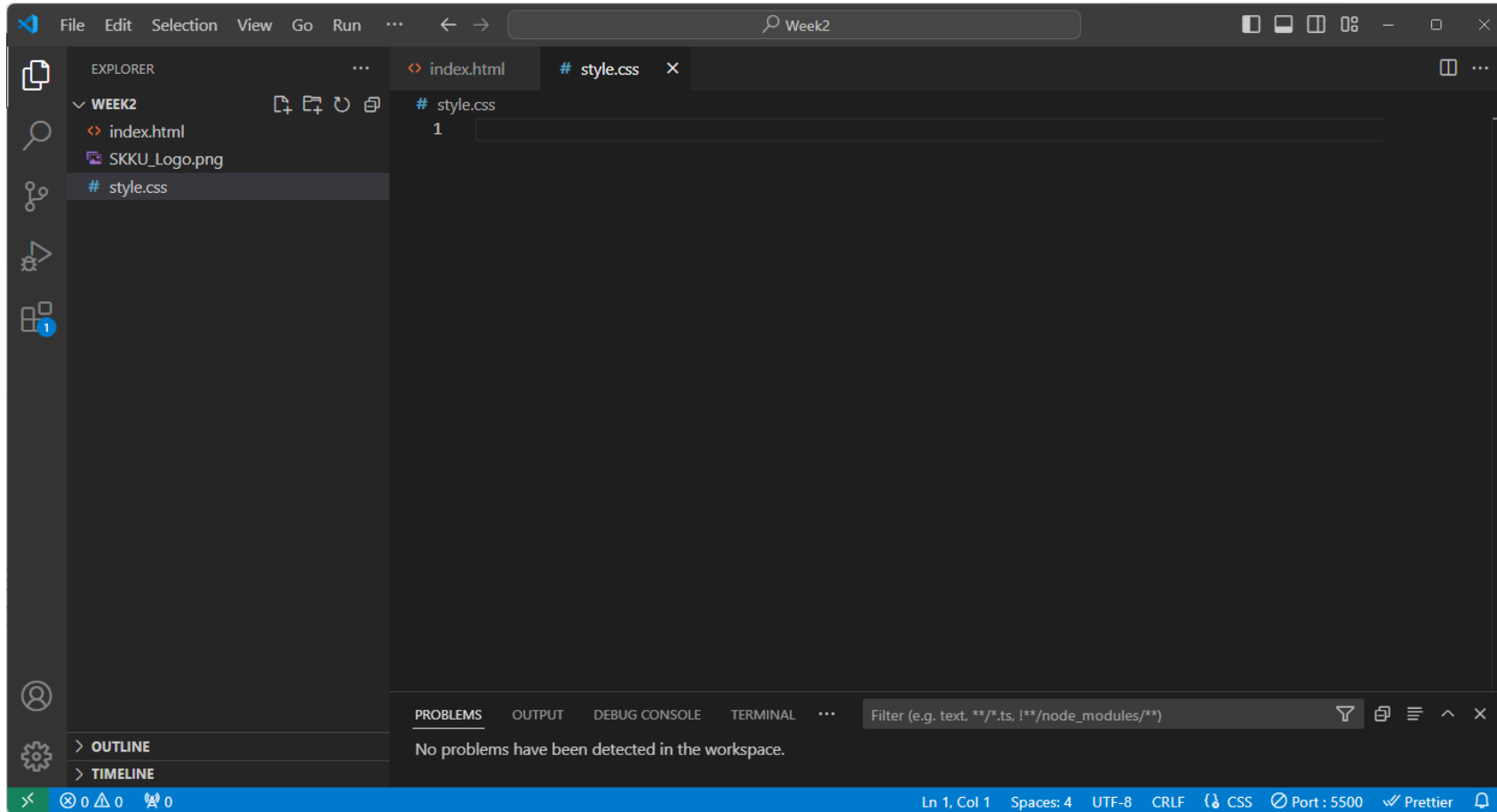


CSS Selector

- Basic selector
 - Universal selector
 - Type selector
 - Class selector
 - ID selector
- Pseudo-class selector
- Pseudo-element selector
- Attribute selector



External Style Sheet





External Style Sheet

The screenshot shows a Visual Studio Code editor window with a dark theme. The Explorer sidebar on the left shows a project named 'WEEK2' containing 'index.html', 'SKKU_Logo.png', and '# style.css'. The main editor area displays the 'index.html' file with the following code:

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <meta charset="UTF-8"/>
5     <title>Web Programming Lab Week2</title>
6     <link rel="stylesheet" href="style.css"/>
7   </head>
8   <body>
9     <h1>Hello World!</h1>
10    <h1>Lorem ipsum dolor</h1>
11    <div>
12      
13    </div>
14    <input type="text"/>
15    <input type="checkbox"/>
16  </body>
17 </html>
18
```

The status bar at the bottom indicates 'Ln 6, Col 46 (41 selected)', 'Spaces: 2', 'UTF-8', 'CRLF', 'HTML', 'Port: 5500', and 'Prettier'.



External Style Sheet

<index.html>

```
<button id="login-btn">  
    로그인  
</button>
```

<style.css>

```
#login-btn {  
    width:300px;  
    height:30px;  
    background-color:green;  
    margin-top:30px;  
    color:white;  
}
```



Internal Style Sheet

<index.html>

```
<head>
  <style>
    body {
      text-align: center;
    }
  </style>
</head>
```



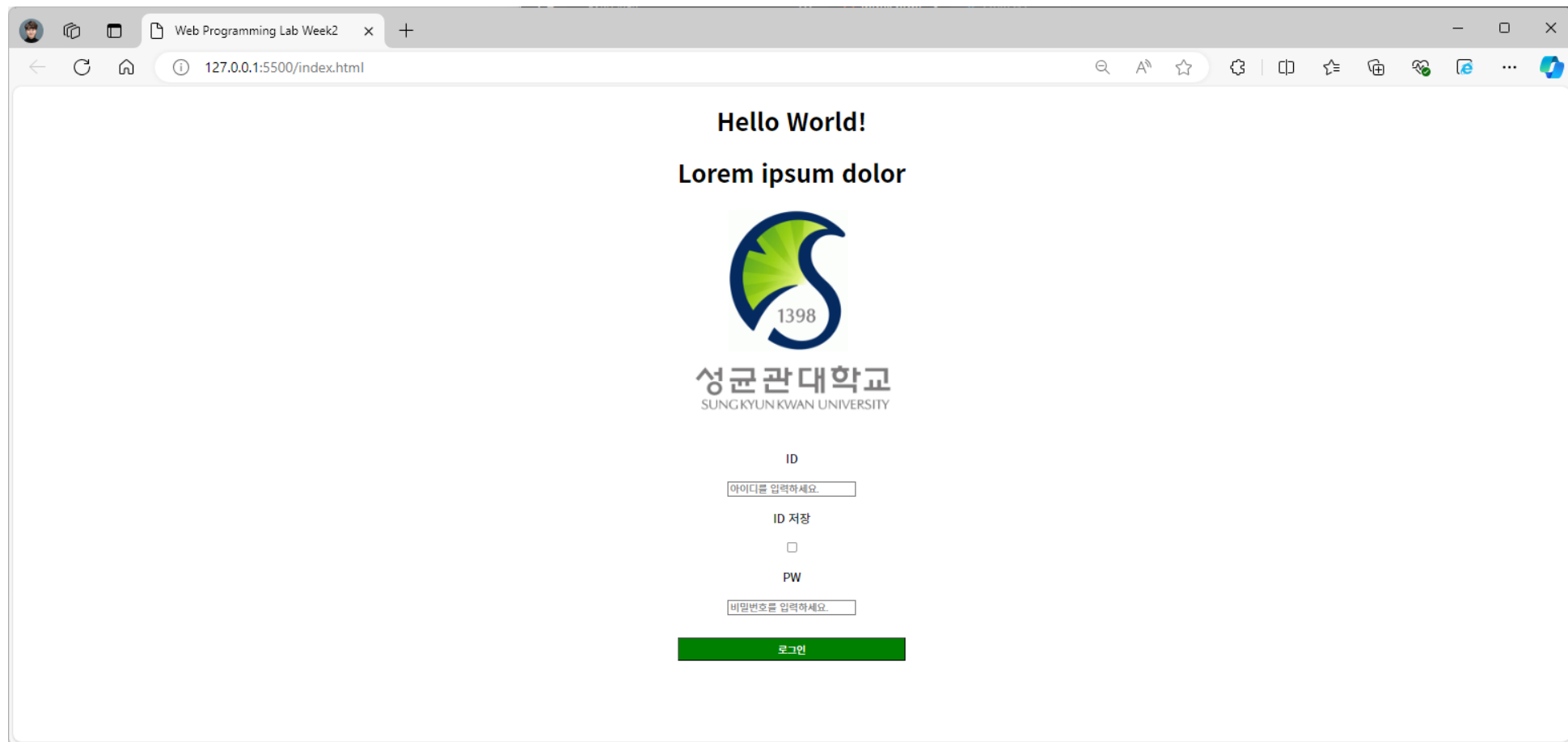
Inline Style Sheet

<index.html>

```
<body>  
  <div>  
      
  </div>  
</body>
```



Final Result





In Next Week

- We will learn about more properties of CSS
- We will adjust arrangement of HTML elements using CSS