Frontend development

Week 1 (Part 1)

Software requirements

Visual studio code

Node js

Git

Account with Github

Command Line Interface

Higher precision of work can be obtained using CLI. GUI (Graphical User Interface) offers a lower level of precision. It works at a higher speed as compared to the GUI. It works at a much slower speed as compared to the CLI. So we shall be mastering some Command Line commands in this course.

Accessing the command line

Following the following steps:

1. Press the windows key on your keyboard for windows operating systems
2. Mac users on the Launchpad icon dock, type Terminal and select Terminal.

Common CLI commands

Commands	meaning
cd desktop	Changes directory to desktop
mkdir frontend	Creates a directory called frontend
cd ..	Moves back to the previous directory
node -v	Shows you the version of your node
npm -v	Shows the version of node package modules installed
dir	Shows the list of files and directories within a folder
ls	On git and mac terminal, this shows list of directories and files
Touch index.html	This creates a file called index.html on the current directory

Getting started with Visual studio Code

Visual Studio Code is a code editor redefined and optimized for building and debugging modern web and cloud applications.

From your command line:

Navigate to desktop - cd desktop

Navigate to frontend folder (already created) - cd frontend

Initialize an empty git repository called wk1 - git init wk1

Navigate to wk1 - cd wk1

Open with vscode - code .

This last command will trigger VSCode to open wk1 folder in vscode.

Important VSC extensions

On the extensions panel of VSC, install the following extensions:

Live server

HTML Preview by

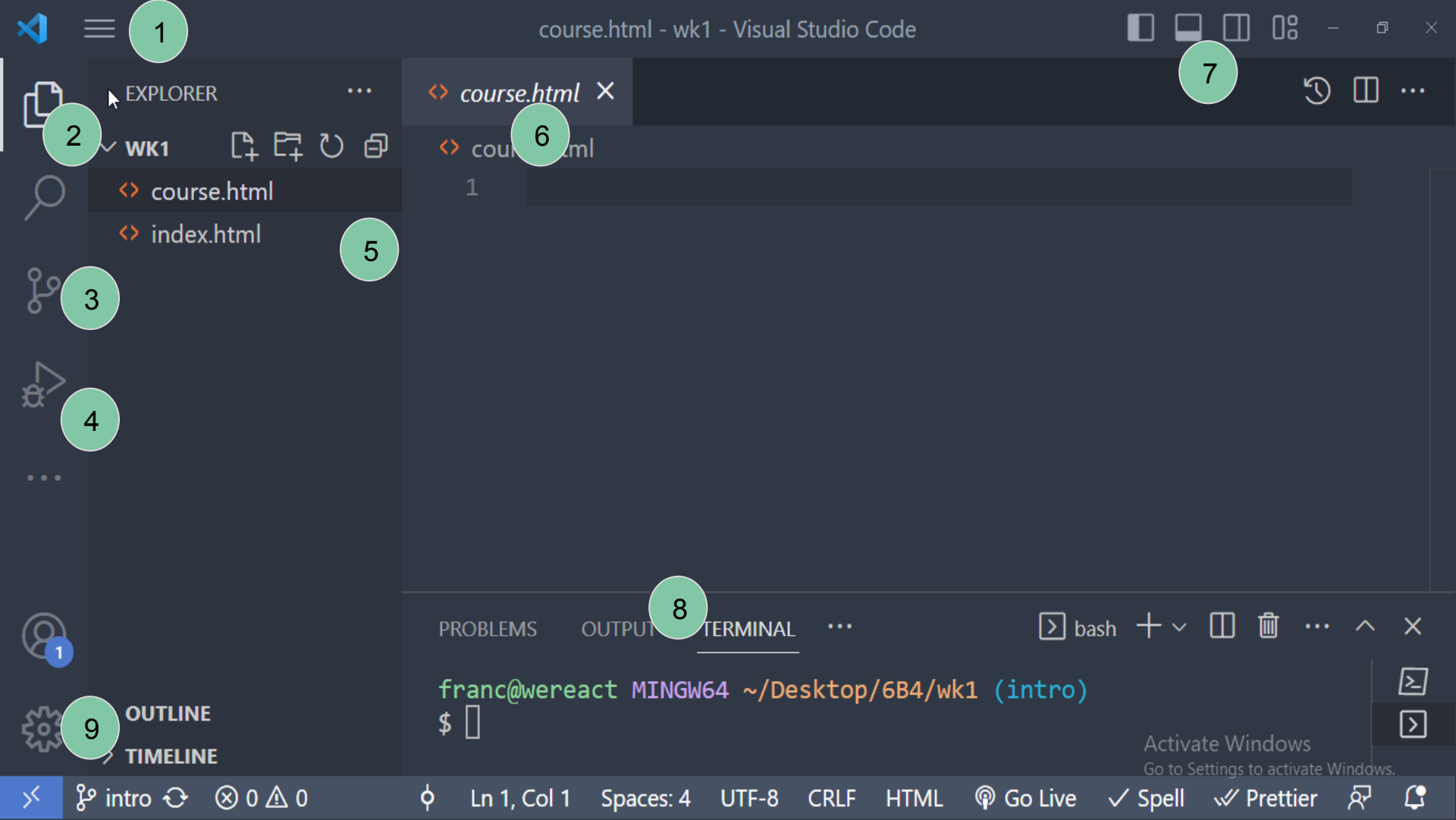
Prettier

Tailwindcss intellisense

CLI on VSC

Your VSC has command line interface, that enables you to perform some cli commands right from your vsc

1. Switch to either powershell or git bash
2. Code entry panel
3. Close or switch interface
4. Unresolved source


1
course.html - wk1 - Visual Studio Code
EXPLORER
2
WK1
course.html
index.html
5
3
4
6
course.html
1
7
8
PROBLEMS
OUTPUT
TERMINAL
bash
franc@wereact MINGW64 ~/Desktop/6B4/wk1 (intro)
$
9
OUTLINE
TIMELINE
Activate Windows
Go to Settings to activate Windows.
intro
0 0
Ln 1, Col 1
Spaces: 4
UTF-8
CRLF
HTML
Go Live
Spell
Prettier

Visual Studio Code

1. Menu- shows the file, edit, selection tabs
2. File Explorer- shows files in the active directories
3. Source control- gives options to add, commit and push to a git repository
4. Extension- Extensions like live server, prettier, auto rename tab can be installed from this panel.
5. File menu- The files within the active directory can be seen here
6. Active file window- editable part where codes are entered within a file
7. Toggle panel- Toggle the appearance of your window with the options available.
8. Terminal- The command line commands are performed from this panel
9. Settings - Make changes like Theme and other preferences from here.

HTML - Introduction

HTML (HyperText Markup Language) is the most basic building block of the Web. It defines the meaning and structure of web content. Other technologies besides HTML are generally used to describe a web page's appearance/presentation (CSS) or functionality/behavior (JavaScript).

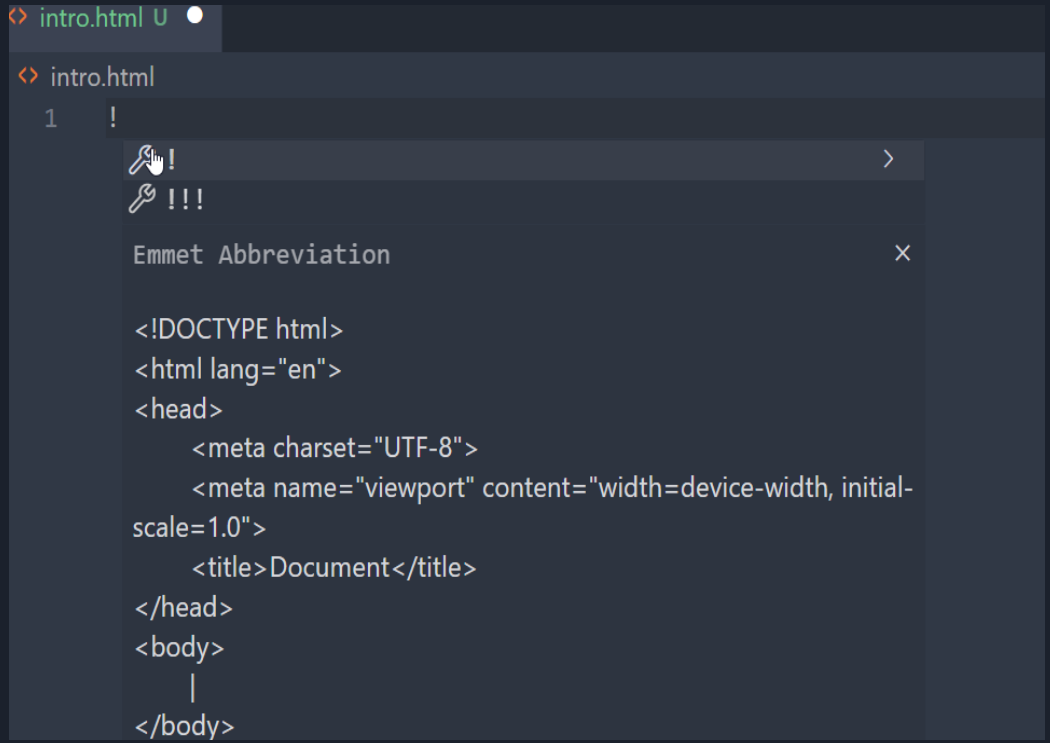
An HTML element is set off from other text in a document by "tags", which consist of the element name surrounded by "<" and ">". The name of an element inside a tag is case-insensitive. That is, it can be written in uppercase, lowercase, or a mixture. But it is much better to represent elements in lowercases.

Example: , <section></section>

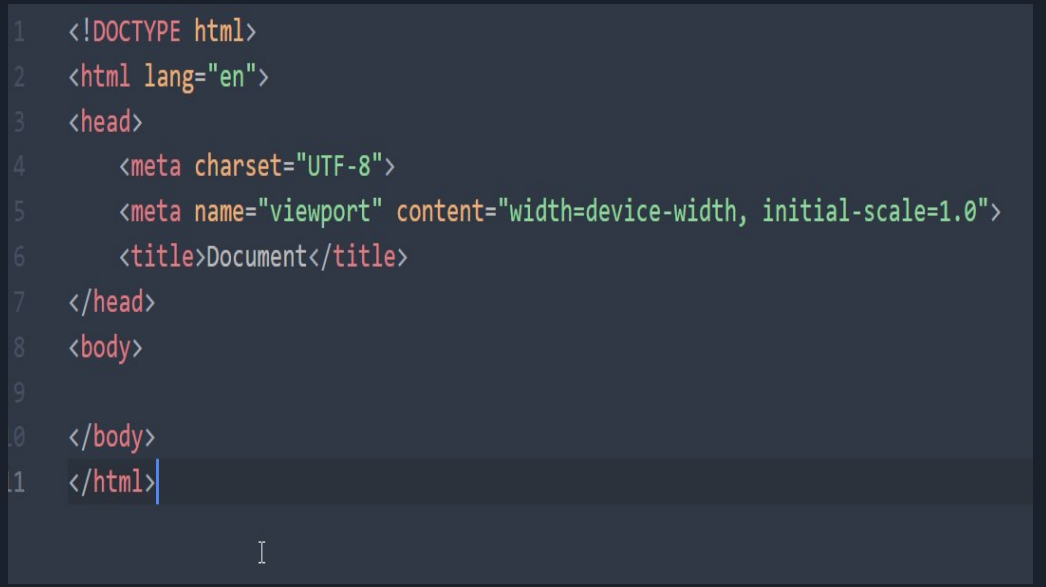
Starting with html boilerplate

A boilerplate in HTML is a template you will add at the start of your project

To start this use an exclamation mark “!”. That is the emmet abbreviation to trigger this boilerplate.



1. DOCTYPE - means html5 elements are included.
2. Html element - This is the root element with an attribute ‘lang’ having a default value of ‘en’ for english. This helps search engine like google for translation.
3. Meta - element very useful for SEO
4. Title- The title of our document. Has a default string of Document. Should be changed to match the h1 element on the body. Very important for search engine optimization.
5. Body element - most of our elements go in here.
6. Head element - handles other elements like link, meta.



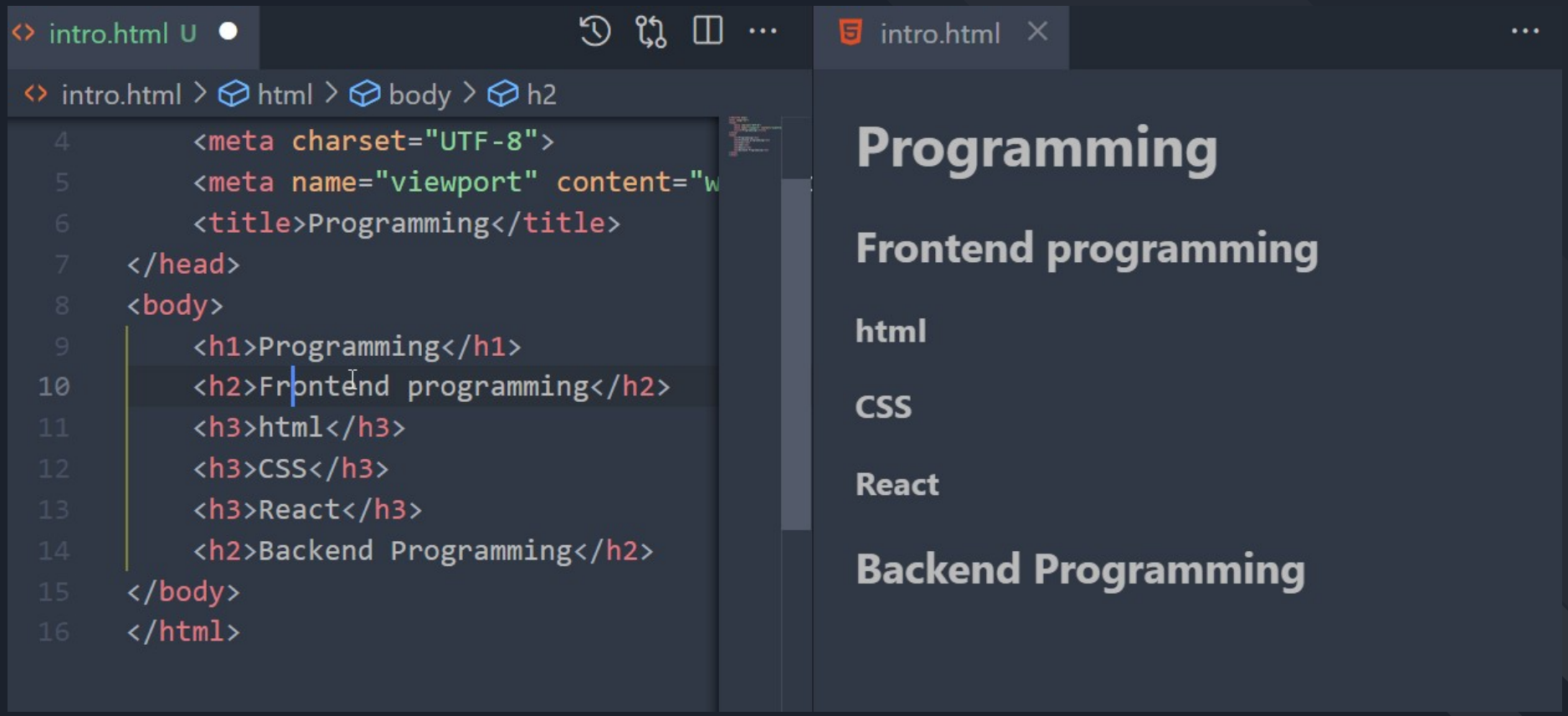
Heading elements

1. H1 - occurs once in a document, should be same as title element.
2. H2- subheading to a title element. Should appear within a section element. Can be multiple in a document.
3. H3- sub heading to a h2 element.

```
<body>
    <h1>Programming</h1>
    <h2>Frontend programming</h2>
    <h3>html</h3>
    <h3>CSS</h3>
    <h3>React</h3>
    <h2>Backend Programming</h2>
</body>
```

PREVIEWING DOCUMENT

If Liver server or HTML Preview is installed on VSC. Right click on the document and choose Preview HTML or Open with Live Server


intro.html U
intro.html > html > body > h2
<meta charset="UTF-8">
<meta name="viewport" content="w
<title>Programming</title>
</head>
<body>
<h1>Programming</h1>
<h2>Frontend programming</h2>
<h3>html</h3>
<h3>CSS</h3>
<h3>React</h3>
<h2>Backend Programming</h2>
</body>
</html>
intro.html
Programming
Frontend programming
html
CSS
React
Backend Programming

Paragraphing

```
<p> It is a structural element
that represents a block of
text or content that forms a
distinct paragraph within a
web page. </p>
```

Paragraph Element

It is a structural element that represents a block of text or content that forms a distinct paragraph within a web page.

Listing elements

uL -

This is an unordered kind of list.

List that do not have a particular order are grouped using ul. They have a child element as li for each list item .

oL -

This is an ordered kind of list.

List that have a particular order are grouped using ul. They have a child element as li for each list item .

OL can also have a type attribute to choose from roman figure, latin or alphabets.

Examples

```
<ul>
    <li>Orange</li>
    <li>Mango</li>
    <li>Apple</li>
</ul>

<h3>Creating a folder</h3>
<ol>
    <li>right click on the desktop</li>
    <li>select "New"</li>
    <li>select "New Folder"</li>
</ol>
```

- Orange
- Mango
- Apple

Creating a folder

1. right click on the desktop
2. select "New"
3. select "New Folder"

Descriptive List

Descriptive lists are used to describe a subject matter. It is used to create a list that pairs terms or labels with their corresponding descriptions or definitions.

intro.html > html > body > dl

```
    <dl>
        <dt>HTML</dt>
        <dd>Hypertext Markup Language - the standard
        markup language for creating web pages.</dd>

        <dt>CSS</dt>
        <dd>Cascading Style Sheets - a stylesheet
        language used for describing the presentation
        of a document written in HTML.</dd>

        <dt>JavaScript</dt>
        <dd>A high-level programming language used
        for adding interactivity and dynamic
        functionality to web pages.</dd>
    </dl>
```

HTML

Hypertext Markup Language - the standard markup language for creating web pages.

CSS

Cascading Style Sheets - a stylesheet language used for describing the presentation of a document written in HTML.

JavaScript

A high-level programming language used for adding interactivity and dynamic functionality to web pages.

Notice how the elements are indented on the output on the right

Anchor element

The anchor element is used to navigate within documents or one document.

It is represented as follows:

The href attribute takes the address of the linked file. It can take both local and remote address.

 Home : links the text ‘Home’ to an index document within the same directory

 Univelcity : links the text ‘Univelcity’ to a remote address of Univelcity website.