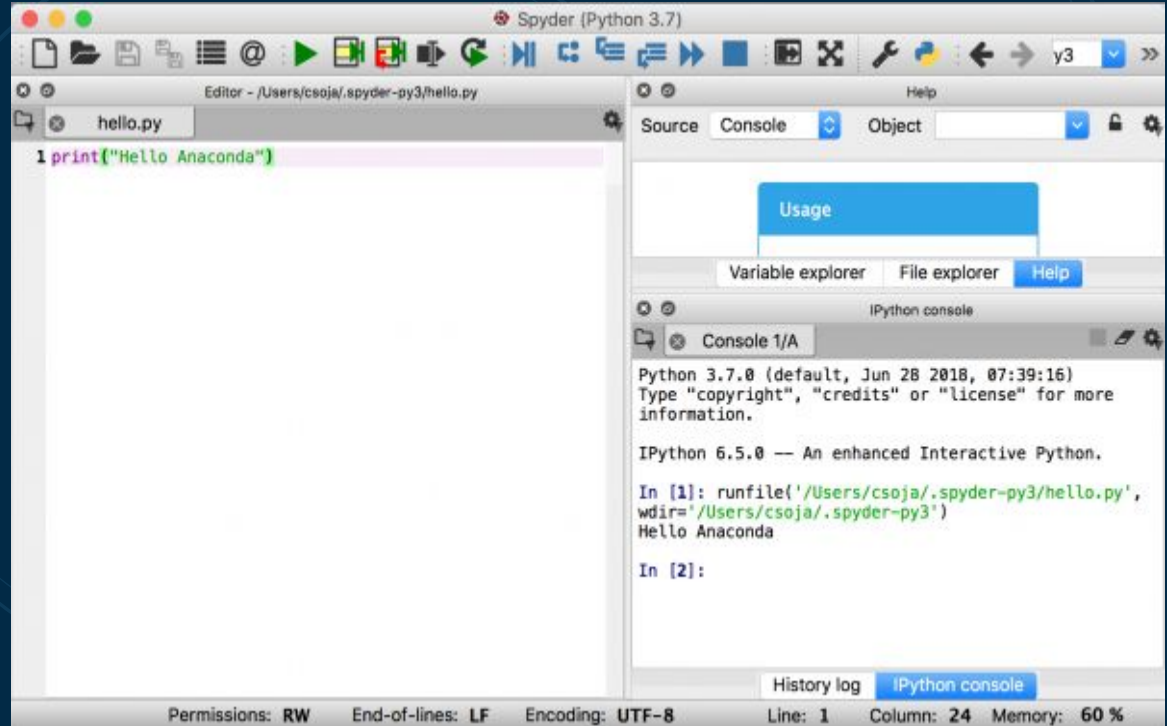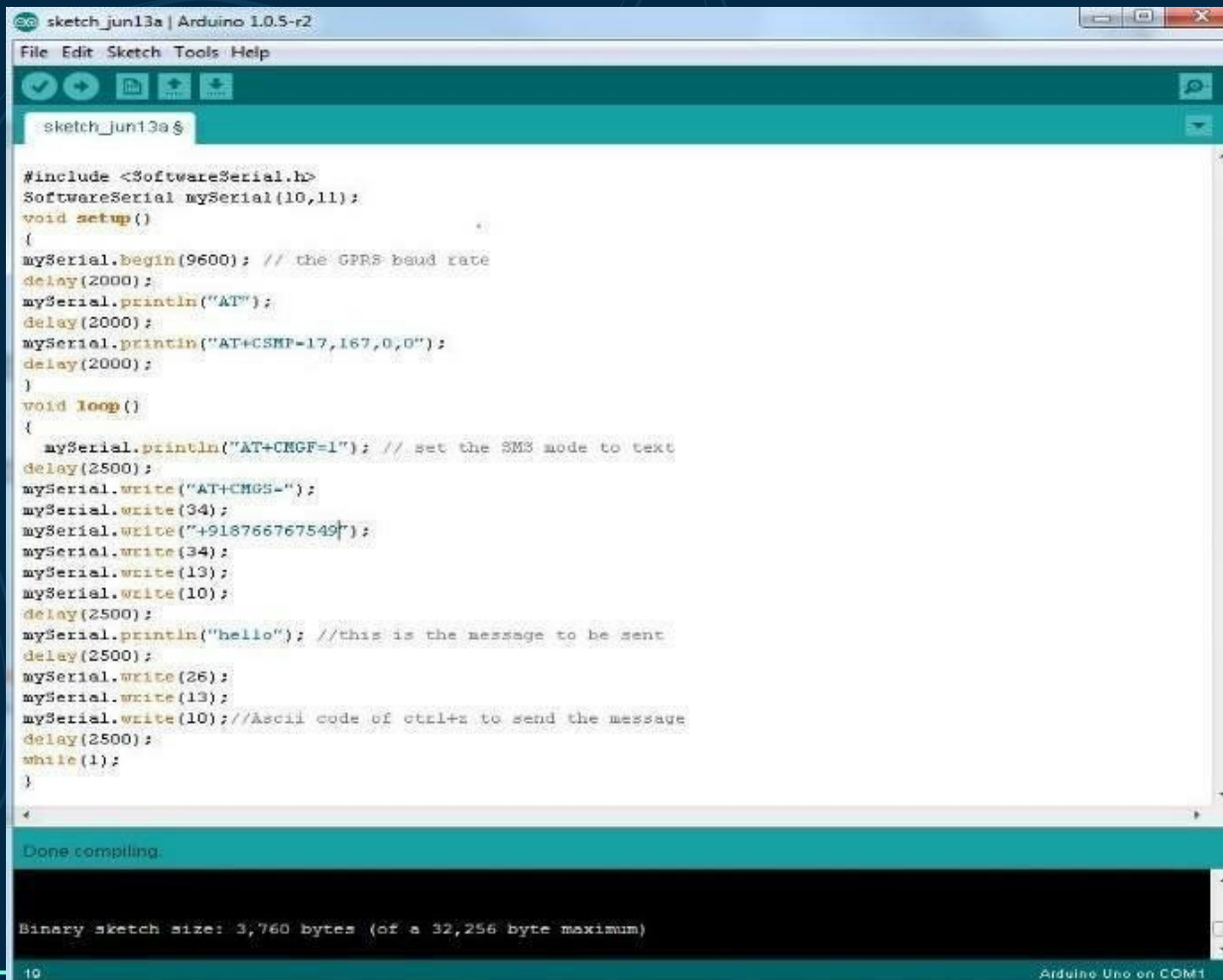<Semester II>

<//Web Development for Designers//>

Week 1 Part 2

What is an IDE?

An **integrated development environment (IDE) is a software application that helps programmers develop software code efficiently.** It increases developer productivity by combining capabilities such as software editing, building, testing, and packaging in an easy-to-use application.

What is an IDE?

An IDE (Integrated Development Environment) is software that combines commonly used developer tools into a compact GUI (graphical user interface) application. It is a combination of tools like a code editor, code compiler, and code debugger with an integrated terminal. Features:

❏ **Editor:** Typically a text editor can help you write software code by highlighting syntax with visual cues, providing language-specific auto-completion, and checking for bugs as you type.

❏ **Compiler:** A compiler interprets human-readable code into machine-specific code that can be executed on different operating systems like Linux, Windows, or Mac OS. Most IDEs usually come with built-in compilers for the language it supports.

❏ **Debugger:** A tool that can assist developers to test and debug their applications and graphically point out the locations of bugs or errors if any.

❏ **Extensions and Plugins:** Extensions and Plugins are used to extend the functionality of the IDEs with respect to specific programming languages.

```
index.js   client/components/SignInForm

1   import React from 'react';
2   import { Link } from 'react-router';
3
4   export default () =>
5   <div>
6     <h3 className="col-md-12 text-center">Or with your account</h3>
7     <div className="col-xs-offset-2 col-xs-8 col-md-offset-4 col-md-4">
8       <form name="userForm" className="signin" noValidate autoComplete="off">
9         <fieldset>
10          <div className="form-group" show-errors>
11            <label htmlFor="username">Username</label>
12            <input type="text" id="username" name="username" className="form-control"
13              placeholder="Username" lowercase required
14            />
15          </div>
16          <div className="form-group" show-errors>
17            <label htmlFor="password">Password</label>
18            <input type="password" id="password" name="password" className="form-control"
19              placeholder="Password" required
20            />
21          </div>
22          <div className="text-center form-group">
23            <button type="submit" className="btn btn-primary">Sign in</button>
24              or 
25            <Link to="/signup">Sign up</Link>
26          </div>
27          <div className="text-center forgot-password">
28            <Link to="/forgot">Forgot your password?</Link>
29          </div>
30        </fieldset>
31      </form>
32    </div>
33  </div>;
```

Visual Code Studio

Visual Studio Code, commonly referred to as VS Code is an integrated development environment developed by Microsoft for Windows, Linux, macOS and web browsers. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded version control with Git. Users can change the theme, keyboard shortcuts, preferences, and install extensions that add functionality.

Step 1: Download and install Microsoft Visual Studio Code from here: Download Visual Studio Code - Mac, Linux, Windows

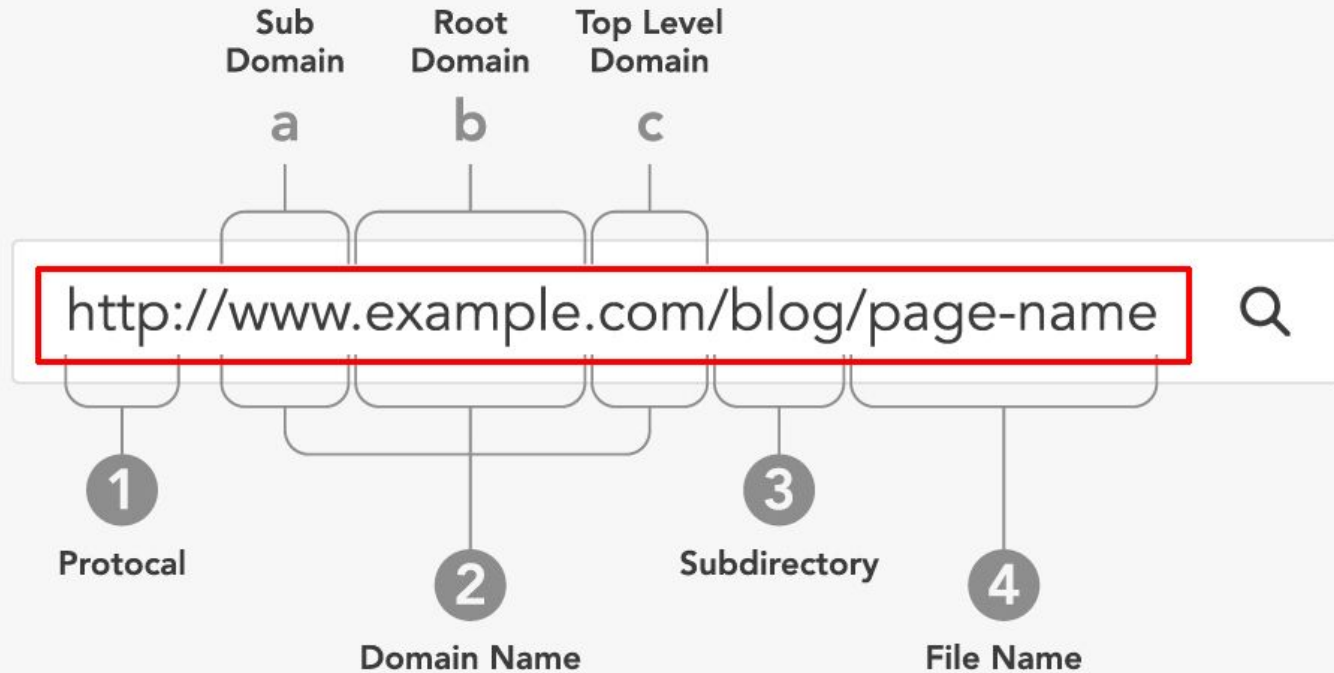Step 2: Download the "Live Preview" Extension from Microsoft

Domain Name vs URL

Domain Name is a part of URL which is a user-friendly form of IP address. Domain name relates to the IP address of the server where information about a website is stored.

The URL (Uniform Resource Locator) is a string of information providing the complete address of the web page on the internet. A website is made up of many web documents (resources), and URL specifies which of these documents the browser must open.

DOMAIN STRUCTURE

Sub Domain
a

Root Domain
b

Top Level Domain
c

http://www.example.com/blog/page-name 🔍

1 Protocal

2 Domain Name

3 Subdirectory

4 File Name

Homework: find out the difference between

difference between

HTML tags and attributes

<Div>

The <div> HTML element is the generic container for flow content. It has no effect on the content or layout until styled in some way using CSS (e.g. styling is directly applied to it, or some kind of layout model like Flexbox is applied to its parent element). **The <section> is a similar tag used to define different sections**

Example: <div>: The Content Division element - HTML: HyperText Markup Language | MDN
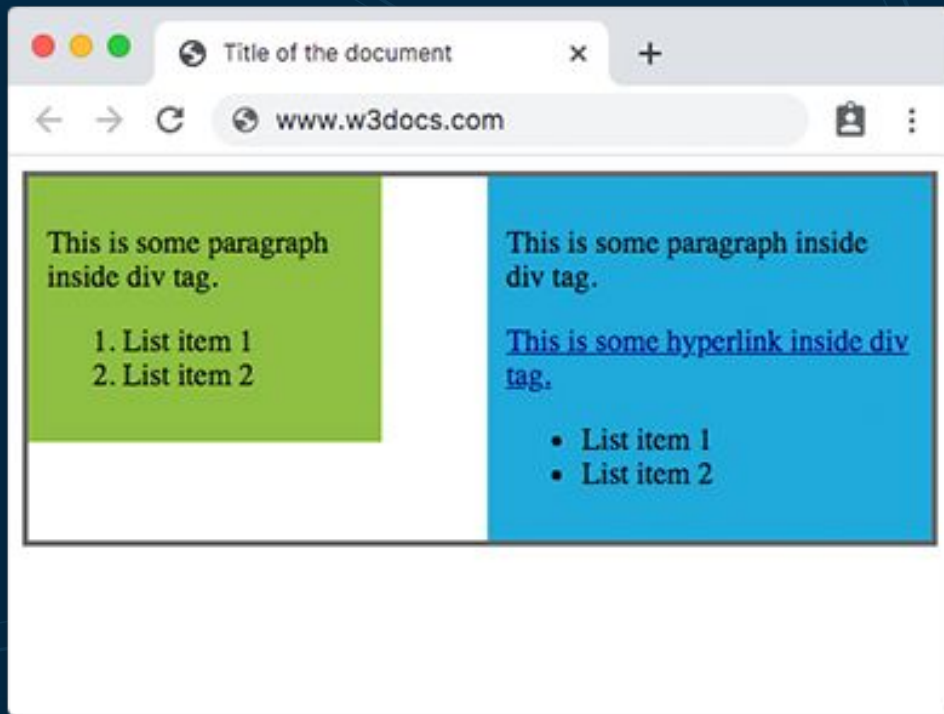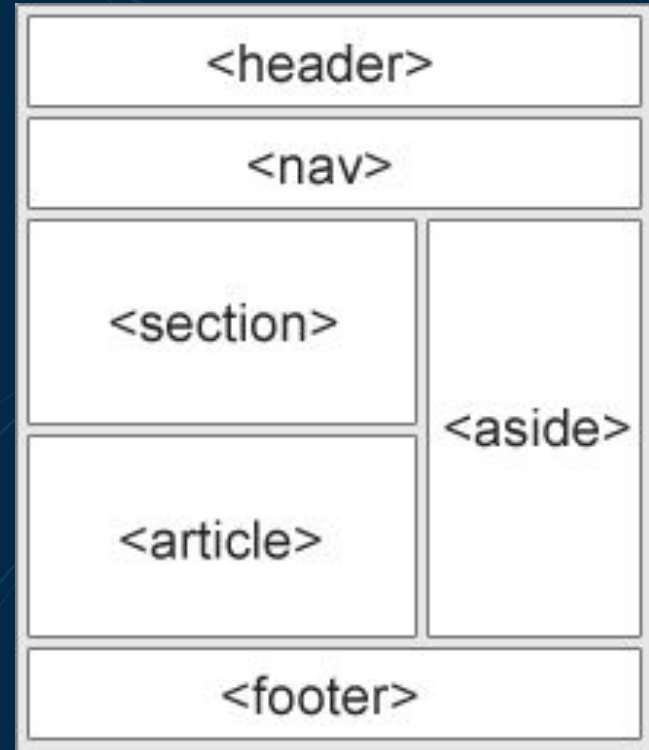
Semantic Tags in HTML

A **semantic element clearly describes its meaning to both the browser and the developer.**

In programming, Semantics refers to the *meaning* of a piece of code — or "what purpose or role does that HTML element have" (rather than "what does it look like?".)

According to the W3C: "A semantic Web allows data to be shared and reused across applications, enterprises, and communities."

Importance of Semantic Tags

HTML should be coded to represent the *data* that will be populated and not based on its default presentation styling. Presentation (how it should look), is the sole responsibility of CSS.Some of the benefits from writing semantic markup are as follows:

❏   Search engines will consider its contents as important keywords to influence the page's search rankings.
❏   Screen readers can use it as a signpost to help visually impaired users navigate a page
❏   Finding blocks of meaningful code is significantly easier than searching through endless divs with or without semantic or namespaced classes
❏   Suggests to the developer the type of data that will be populated
❏   Semantic naming mirrors proper custom element/component naming

Forms in HTML

Forms in HTML: <label> tag

An HTML form is used to collect user input. The user input is most often sent to a server for processing.
The HTML <form> element is used to create an HTML form for user input:
The HTML <input> element is the most used form element.

The <label> tag defines a label for many form elements.The <label> element is useful for screen-reader users, because the screen-reader will read out loud the label when the user focuses on the input element. The <label> element also helps users who have difficulty clicking on very small regions (such as radio buttons or checkboxes) - because when the user clicks the text within the <label> element, it toggles the radio button/checkbox. The for attribute of the <label> tag should be equal to the id attribute of the <input> element to bind them together.

Forms in HTML: value attribute

The value attribute in the <input> tag is used to give default values. The value attribute specifies the value of an <input> element.The value attribute is used differently for different input types:

❏   For "button", "reset", and "submit" - it defines the text on the button. Eg. <input type="submit" value="Submit">

❏   For "text", "password", and "hidden" - it defines the initial (default) value of the input field. Eg. <input type="text" id="fname" name="fname" value="John">

❏   For "checkbox", "radio", "image" - it defines the value associated with the input (this is also the value that is sent on submit). Eg. <input type="radio" id="html" name="fav_language" value="HTML">

Lists HTML

Homework: Load the HTML page you made yesterday in Visual Studio Code. Download the extension "Live Preview" by Microsoft to preview it. Try adding lists, forms, div, semantic tags in your HTML file. Try the <details> and <mark> tags.

W3Schools HTML Tutorial

HTML: HyperText Markup Language | MDN

Reference

<//   //>

1. Getting started with Visual Studio Code

2. Dive Into HTML5

3. Structuring content with HTML - Learn web development | MDN

4. <div>: The Content Division element - HTML: HyperText Markup Language | MDN

5. <section>: The Generic Section element - HTML: HyperText Markup Language | MDN

6. Semantics - MDN Web Docs Glossary: Definitions of Web-related terms | MDN

7. <details>: The Details disclosure element - HTML: HyperText Markup Language | MDN

8. <mark>: The Mark Text element - HTML: HyperText Markup Language | MDN

9. <form>: The Form element - HTML: HyperText Markup Language | MDN

10. HTML label tag

11. HTML input value Attribute - W3Schools

12. HTML Lists and types - W3Schools

Fonts & colors used

This presentation has been made using the following fonts:

Blinker
(https://fonts.google.com/specimen/Blinker)

Inconsolata
(https://fonts.google.com/specimen/Inconsolata)

#ffffff

#022a46

#72ffdd

#72ffff

#0d3a58