Appendice
Materiale trasversale

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Comments & Documentation

Appendix

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Comments

Comments are human-readable text ignored by the computer

Why comments are important

- Comments help you understand what you are coding
- They help other programmers understand your code
- They help you to remember what code that you wrote 3 months ago does

Documentation & comments in HTML

Required HTML elements

```html
<!doctype html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <title>The mysterious orient</title>
  <meta name="description" content="An account of my travels in the east">
  <meta name="author" content="marco polo">
</head>

</html>
```

An HTML page must at least include the following:
Doctype, language, charset, title, description and author.

Required HTML elements

```html
<body>
  <!-- page content -->
  <div>meaningful content here</div>

  <!-- end of the body -->
  <script src="js/scripts.js"></script>
</body>

</html>
```

A comment must be included to indicate the end of the body before any scripts.
If there are many included scripts, add a comment for each to explain what they do.

HTML comments

```html
<!-- This is a single line comment -->

<!--
This is a comment
that spans multiple lines
-->

<!-- This is an example of a Closing Tag Comment -->

<div id="main-wrapper">
    ...
</div><!-- #main-wrapper -->
```

Comments in CSS

CSS comments example

```css
/**
 * icons.css
 *
 * Icons should convey in a simple way the concept of they represent.
 * When designing new icons remove complexities and follow the linear appearance of the set.
 */

.icon {
 font-family: 'family name';
 font-style: normal;
 text-transform: none !important; /* forces transform */
}

/* individual icons */
.icon-microchip:before {
 content: "\f2db";
}
```

Comments in Javascript

JS Comments

```javascript
// You can write single-line comments
let x = 4; // Or you can comment after a statement

/*
Or you can write multi-line comments, if you have something very long
to say like this gratuitously long description.
*/
```

JS Comments and documentation

```
Code, especially functions, should be well commented:
/*
 * Adds two numbers and returns the sum
 */
function addNumbers(num1, num2) {
    return num1 + num2;
}
```

JS Comments and documentation

Using JSDoc documentation standard is even better:

```
/**
 * Returns the sum of num1 and num2
 * @param {number} num1 - the first number
 * @param {number} num2 - the second number
 * @returns {number} Sum of num1 and num2
 */
function addNumbers(num1, num2) {
    return num1 + num2;
}
```

Use JSDoc: Documentation
JSDoc on github

JS File documentation

Each Javascript file header should be well commented:

```
/**
 * @file: filename.js
 * @author: author's name
 * Purpose of file
 *
 * Detailed explanation of what the file does
 * on multiple lines
 */
```

JS File documentation

Example:

```
/**
 * @file: math-demo.js
 * @author: james jones
 * A demonstration of Math functions
 *
 * This exercise file demonstrates some uses of the JavaScript Math Object
 * More examples at: https://www.w3schools.com/js/js_math.asp
 */

Math.round(4.7);    // returns 5
Math.round(4.4);    // returns 4
Math.pow(8, 2);     // returns 64
Math.abs(-4.7);     // returns 4.7
Math.ceil(4.4);     // returns 5
Math.floor(4.7);    // returns 4
```

Comments

- All the code that you write for this course <u>must be properly commented</u>
- Code without proper comments will be considered <u>incomplete</u>

Markdown

What is markdown

- A plain text formatting syntax aimed at making writing for the internet easier
- Plain text documents should be readable without tags
- There should still be ways to add text modifiers like lists, bold, italics, etc

Common usages

- In rich input fields on the web
  - e.g. forums, comments, etc
- In project documentation
  - most commonly as **readme.md**

Markdown features

- Easy to learn
- Fast to use
- Converts to HTML easily
- Flexible use
  - Project documentation
  - Rich user input in blogs, forums, comments
- Quite readable even as plain text

Markdown in action

```
An h1 header
============

Paragraphs are separated by a blank line.

2nd paragraph. *Italic*, **bold**, and `monospace`. Itemized lists
look like:

 * this one
 * the other one

> Block quotes are written like so.
```

Markdown in action

```
An h2 header
------------

Here's a numbered list:

1. first item
2. second item
3. third item

```javascript
// this is javascript code
function addNumbers(num1, num2) {
    let result = num1 + num2;
}
```
```

Documentation

- All exercises and projects that you submit for this course <u>must have proper documentation</u>
- Include a **readme.md** file in the root folder
- Projects without proper documentation will be considered <u>incomplete</u>

Further reading

Comments in source files

HTML style guide with coding standards and best practices

Commenting in HTML | Best Practices

Source Code Comment Styling: Tips and Best Practices

Further reading

JSDoc

[Commenting JavaScript code with JSDoc](#)

[An introduction to JSDoc](#)

[JSDoc](#)

Further reading

Readme

[README.md: the ultimate guide](#)

Markdown

[Markdown - Basics](#)

[Markdown - Getting Started](#)

[Learn X markdown in Y minutes](#)

[Dillinger - Online markdown editor](#)