Appendix 1

Comments & Documentation

Shadi Lahham - Programmazione web - Frontend - Javascript

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

Required HTML elements

```
<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

```
<!-- 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

```
/**
* 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

```
// 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
 - o 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
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</u> <u>documentation</u>
- Include a **readme.md** file in the root folder
- Projects without proper documentation will be considered <u>incomplete</u>

## Further reading

HTML style guide with coding standards and best practices

Commenting in HTML » Best Practices Web Design

## Further reading

Commenting JavaScript code with JSDoc

An introduction to ISDoc

**ISDoc** 

<u>ISDoc returns</u>

Source Code Comment Styling: Tips and Best Practices

## Further reading

Markdown Basics

Markdown - Getting Started

Learn X markdown in Y minutes

Online Markdown Editor - Dillinger