HOMEWORK

JavaScript From Beginner to Professional

NOVEMBER 11, 2022
CODE ACADEMY DOO
contact@codeacademy.mk

CONTENTS

INTRODUCTION

Our academy believes that homework is an essential part of all students' education. The purpose of completing tasks at home is to support students in becoming independent learners and encouraging a deeper understanding of the subject studied. It also develops skills in personal organization and a sense of responsibility. Home learning is an essential part of the preparation for examinations and it is vital that students dedicate time to learning key information required for exam success.

Research shows that there is the potential for adding 5 months to the progress of each student through their academy with the setting of effective homework tasks. Evidence also suggests that how homework relates to learning during normal school time is important. In order to be most effective, homework should be an integral part of learning, rather than an add-on. To maximize impact, it is important that students are provided with high-quality feedback on their work.

The optimum amount of homework is between 1-2 hours per class Common home learning activities may be reading or preparing for work to be done in class, or practicing and completing tasks or activities already taught or started in lessons, but it may include more extended activities to develop inquiry skills or more directed and focused work such as revision for exams. Where extended tasks are set over a number of weeks, these should be broken into a series of smaller steps for students to complete.

The purpose of homework is to keep you practicing the material we learn and what we are about to learn in the course. If you don't know how to solve any of the exercises, please first see the solution if it has one and try to figure it out, and if you still don't know how to solve them, contact the instructor.

The best way to learn is to practice. Happy coding!

INCLUDING JAVASCRIPT IN YOUR PAGE

Including JavaScript in your page is a fairly simple process.

First, What Is JavaScript?

- JavaScript was designed to add interactivity to HTML pages
- JavaScript is a scripting language
- A scripting language is a lightweight programming language
- JavaScript is usually embedded directly into HTML pages
- JavaScript is an interpreted language (means that scripts execute without preliminary compilation)
- Everyone can use JavaScript without purchasing a license

Including the JavaScript

You can include JavaScript in your HTML in two ways:

- Writing the code in your HTML
- Including it as a link to an external file

For the most part, you will include the JavaScript as an external file.

The Script Tag

The <script> tag is what we use to includes our JavaScript. It's a lot like the <link> tag you've already been using to include your CSS files.

Here's a very basic snippet of JavaScript using the script tag. This JavaScript is written directly into our HTML page. It will call and alert box as soon as the page loads.

```
<script type="text/javascript">
  alert("This alert box was called with the onload event");
</script>
```

When using the script tag, we must always use the attribute name and value of type="text/javascript".

Using the script tag to include an external JavaScript file

To include an external JavaScript file, we can use the script tag with the attribute src. You've already used the src attribute when using images. The value for the src attribute should be the path to your JavaScript file.

```
<script type="text/javascript" src="path-to-javascript-file.js"></script>
```
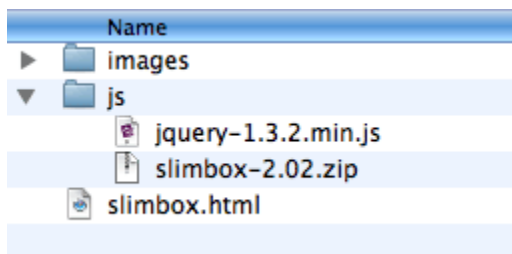
This script tag should be included between the <head> tags in your HTML document.

JavaScript Files

JavaScript files are not HTML files or CSS files.

- Always end with the js extension
- Only include JavaScript

It's customary to put all JavaScript files in a folder called js on websites, like so:

Simple Demo of Including JavaScript

Here's a very simple demonstration of how to include an external JavaScript file into an HTML page.

- Basic JavaScript Example

Other People's JavaScript

For this class you are not expected to write any actual JavaScript code. Lucky for you, many of people have already written lots of JavaScript and even allow you to use it for free.

JavaScript Frameworks

A Framework is basically a library of code for a certain language. Generally, the framework abstracts common tasks and makes it easier and faster for designers and developers to write their specific code. Frameworks don't really do anything by themselves, they just provide an easier platform for people to build on.

Common JavaScript Frameworks:

- JQuery
- Prototype
- MooTools
- script.aculo.us

Of these frameworks, JQuery is currently the most popular one. It's also the one you're most like to encounter being used as a buzz word.

JavaScript File Sizes

Many JavaScript files can tend to be rather large, which can slow down the load time of your page. Popular frameworks usually offer a "minified" version of their code. You should always use this version in your pages because it will have a smaller file size.

EXERCISES

Exercise 01

Create an html file with <script> tag that contains one alert() function that shows the user the text "Hello World".

Exercise 02

Create one html file and one JavaScript file. With in <script> tag link the JavaScript file. Then in the JavaScript file write one alert() function that shows the user the text "Hello World".