JavaScript

Lab 4

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# Executing a JavaScript program

There are a multitude of ways to execute a JavaScript program.

1. Using the Node.js runtime environment to directly execute a JavaScript program
2. Including JavaScript into a HTML document
3. Running JavaScript in console tab of Dev Tools
4. Using an online JavaScript playground
5. Using a framework that is based on JavaScript (e.g. Angular, React, Vue)

We have already seen the first approach in the previous lab sessions. We will look at some of the other approaches here.

## Including JavaScript into a HTML document

For JavaScript referenced from within a HTML document that is loaded in the browser, there are 2 ways to perform simple text output for debugging purposes:

* Using alert('*message to display*'); method of the Window global object which causes an alert box to appear with the message.
* Using console.log('*message to display*'); where the message appears in the console tab of Dev tools

<https://www.tutorialrepublic.com/javascript-tutorial/javascript-get-started.php>

Files to use:

demo-embed-javascript.html

demo-include-javascript.html

hi-there.js

demo-inline-javascript.html

## Placement of JavaScript tag

Recommendation for including in <head> tag along with defer and async attributes properly

<https://stackoverflow.com/questions/436411/where-should-i-put-script-tags-in-html-markup>

<https://flaviocopes.com/javascript-async-defer/#just-tell-me-the-best-way>

## Typing JavaScript code directly into the console tab

<https://developer.chrome.com/docs/devtools/console/javascript/>

<https://www.digitalocean.com/community/tutorials/how-to-use-the-javascript-developer-console>

## Using an online JavaScript playground

<https://linuxhint.com/top-five-javascript-playgrounds/>

# JavaScript Document Object Model (DOM)

<https://www.javascripttutorial.net/javascript-dom/>

<https://www.javascripttutorial.net/javascript-dom/document-object-model-in-javascript/>

# Selecting elements

## getElementById

<https://www.javascripttutorial.net/javascript-dom/javascript-getelementbyid/>

Files to use: demo-getElementById.html

## querySelector, querySelectorAll, Nodelist

<https://www.javascripttutorial.net/javascript-dom/javascript-queryselector/>

<https://www.w3schools.com/jsref/met_document_queryselectorall.asp>

<https://www.w3schools.com/jsref/dom_obj_html_nodelist.asp>

<https://www.w3schools.com/jsref/dom_obj_all.asp>

Files to use:

demo-querySelectorAll.html