Lecture 2

MOD8: Advanced Web Programming

Review of JavaScript Advanced Topics.

During this course, the following JavaScript components will be covered in a hands-on approach, all codes developed during the course will be available at the end of the course on Moodle

Please use the guide reference at the end of this document for additional information.

Javascript

- Syntax
  - Var, let, const, array, object
- Using Id elements
  - getElementById
- Return
  - Alert, console.log, document.write
- Functions()
- Loops
  - For with step, For each, for in, for of, while
- Array functions
  - Push(), Shift(), Unshift(), Sort(), Reverse()
  - .map(), .reduce(), .filter()
- Events
  - onclick,

General Concepts

JavaScript to program the behavior of web pages

JavaScript is already running in your browser on your computer, on your tablet, and on your smart-phone.

Arrays: JavaScript arrays are written with square brackets.

Array items are separated by commas.

The following code declares (creates) an array called cars, containing three items (car names):

```
const cars = ["Saab", "Volvo", "BMW"];
```

Objects: JavaScript objects are written with curly braces {}.

Object properties are written as name:value pairs, separated by commas.

```
const person = {firstName:"John", lastName:"Doe", age:50, eyeColor:"blue"};
```

Reduce ()

- The reduce() method runs a function on each array element to produce (reduce it to) a single value.
- The reduce() method works from left-to-right in the array. See also reduceRight().
- The reduce() method does not reduce the original array.

What is JSON?

- JSON stands for **J**ava**S**cript **O**bject **N**otation
- JSON is a lightweight data interchange format
- JSON is language independent *****
- JSON is "self-describing" and easy to understand

* The JSON syntax is derived from JavaScript object notation syntax, but the JSON format is text only. Code for reading and generating JSON data can be written in any programming language.

JSON is a format for storing and transporting data.

JSON is often used when data is sent from a server to a web page.

What is this?
In JavaScript, the this keyword refers to an **object**.

Which object depends on how this is being invoked (used or called).

The this keyword refers to different objects depending on how it is used

References: https://www.w3schools.com/js/default.asp