Week 02 Notes

Preface before notes: These notes are the main points in the chapter defined by the book. I found these points after reading each chapter.

* Comments are ignored by the program, but make your program easier to read and understand
* Data types are the basic building blocks of all JavaScript programs.
* There are six primitive data types: strings, symbols, numbers, Booleans, undefined and null.
* Non-primitive data types, such as arrays, functions and objects, all have a type of 'object'.
* Variables point to values stored in memory and are declared using the const or let keywords.
* Values are assigned to variables using the = operator.
* Strings and numbers have various properties and methods that provide information about them.
* Symbols are unique, immutable values.
* Boolean values are either true or false .
* There are only seven values that are false in JavaScript and these are known as 'falsy' values.
* Data types can be converted into other data types.
* Type coercion is when JavaScript tries to convert a value into another data type in order to perform an operation.
* Logical operators can be used to check if compound statements are true or false.
* Values can be compared to see if they are equal, greater than or less than other values.
* Arrays are an ordered list of values
* Multidimensional arrays are arrays that contain other arrays
* Arrays have lots of methods that can be used to manipulate items in the array
* Sets are new in ES6 and are ordered lists of non-duplicate values
* Maps are new in ES6 and are ordered lists of key-value pairs
* We can use an if and else statement to control the flow of code
* The switch statement can be used instead of multiple if and else statements
* A while loop and do ... while loop can be used to repeat a block of code while a condition is still true
* A for loop works in a similar way to a while loop, but has a different syntax
* A for-of loop can be used to iterate over an array
* Sets and maps are enumerable, so can also be looped overusing a for-of loop
* Functions are first-class objects that behave the same way as other values.
* Function literals can be defined using the function declaration, or by creating afunction expressionby assigning an anonymous function to a variable.
* All functions return a value. If this is not explicitly stated, the function will return undefined.
* A parameter is a value that is written in the parentheses of a function declaration and can be used like a variable inside the function’s body.
* An argument is a value that is provided to a function when it is invoked.
* The arguments variable is an array-like object that allows access to each argument provided to the function using index notation.
* The rest operator can be used to access multiple arguments as an array.
* Default arguments can be supplied to a function by assigning them to the parameters.
* Arrow functions are a new shorthand notation that can used for writing anonymous functions in ES6.
* Function declarations can be invoked before they are defined because they are hoisted to the top of the scope, but function expressions cannot be invoked until after they are defined.
* Acallbackis a function that is provided as an argument to another function.