Module 2: Functions and functional expressions

In this Module:

The most important cornerstone of Javascript: functions and functional expressions.
- What can we do with functions?
- Function as a first class citizen
- Context
- Useful array methods
- Recursion
- Closures
- Currying and partial application

Documentation:

https://developer.mozilla.org/en-US/docs/Web/JavaScript/Guide/Functions

About Functions in Russian

https://learn.javascript.ru/function-basics
https://learn.javascript.ru/function-declaration-expression
https://learn.javascript.ru/recursion

First-class functions:

"*In computer science, a programming language is said to have first-class functions if it treats functions as first-class citizens. This means the language supports passing functions as arguments to other functions, returning them as the values from other functions, and assigning them to variables or storing them in data structures*"
https://www.youtube.com/watch?v=JEq7Ehw-qk8

Arrow functions:

"*Arrow functions are anonymous and change the way "this" binds in functions*"
https://www.youtube.com/watch?v=mrYMzpbFz18

JavaScript Higher Order Functions & Arrays

"*some of the very powerful higher order functions and working with arrays. Array methods by example: forEach, map, filter, reduce and sort*"
https://www.youtube.com/watch?v=rRgD1yVwIvE

Closures:

"*A short video explaining the concept of closures, using JavaScript*"
https://www.youtube.com/watch?v=CQqwU2Ixu-U

JavaScript Functional Programming Explained: Partial Application and Currying

"*Currying transforms a function of multiple arguments to a series of function calls, each of which involves just one of those arguments. Partial application fixes the value of some of a function's arguments without fully evaluating the function.*"
https://scotch.io/tutorials/javascript-functional-programming-explained-partial-application-and-currying