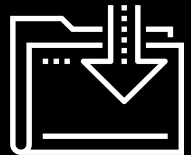


Algorithms

Web Development Boot Camp

Unit 17





What is an algorithm?

What is an algorithm?

- Self-contained series of steps
- Describes a way to solve a problem
- Can be for a human or machine



**Are algorithms the same thing as
functions?**

Are algorithms the same thing as functions?

Algorithm

An algorithm is an abstracted idea of how to solve a problem.

Function

A function is a means of implementing the steps outlined by the algorithm.



Why study popular CS algorithms?

Why study popular CS algorithms?

Understanding algorithms helps developers...

01

think about a problem in a conceptual and abstract way

02

create a better and more efficient solution

03

become better developers



**Do some algorithms solve problems
more quickly than others?**

YES!

- But it usually depends on the type of problem being solved.
- Important to know how different algorithms work in various situations.



Big-O Cheat Sheet

Big-O complexity of an algorithm

- Find potential amount of steps required to solve a problem in a worst-case scenario.
- Measure the efficiency in relation to input size.
- Measure how much the number of steps increases as the size of the input increases.



Questions?