CODING

Skill Tree: Color in the boxes and level up your skills

Use for individuals or as a group by picking a colour each and coloring in a part of the box. Everyone's journey is different and you can interpret the goals flexibly. The aim is to inspire you to learn and try new things. Not everything needs to be completed.

ADVANCED

(set your own goal)
(set your own goal)
(set your own goal)
(set your own goal)
(set your own goal)
Teach a class on coding skills
Earn money from coding
Participate in an open source project
User test and improve your code
Learn three or more coding languages
Write a streaming program using UDP and a custom protocol
Participate in a Hackathon
Publish your program on a code platform
Use a second programming language in the same project
Learn about project management styles (e.g. waterfall vs agile)
Fix a race condition
Write a program to accept commands over a UART from a serial terminal
TX RX
Collaborate on a project with others
Write detailed documentation for your coding project
Use a performance profiler to identify and fix hot spots
Write a program which divides tasks into multiple threads and synchronizes their completion
Use a graph data structure
Make a recursive function non-recursive
Use bitwise operators for speed improvements
1 0 1 1 0
Write a TCP/IP server which accepts connections on a unique port number
Teach a friend a coding skill
Write a Windows Hello World program using the Win32 API
Use a tree data structure
Write an Android Hello World program
Use an API in a project
Write an iOS Hello World program
Write a Linux Hello World program using GTK+
Use recursion
Use a debugger
Write a MacOS Hello World program using Cocoa
Use version control
Use a design pattern (e.g. Gang of Four)
Use command line parameters for your program
Run into circular dependency with your files
Write a quick sort algorithm
Write object oriented code
Document your program
Use node based coding
Get confused reading your own code
Convert code from floating point math to integer/fixed point
3.141592
Convert a program which uses arrays to use pointers
Use a logical shortcut in a condition
Write a bubble sort algorithm
Spend a long time trying to find a trivial bug
Re-assign a value to a variable
Compare floating point numbers by equality
3.141592
Use a keyboard shortcut to run your program
Fix errors in your code without using Stack Overflow
Use a set instead of a list
Use a Git repository to share code
Use a keyboard shortcut to save your code
Explain your code with comments
Create a POSIX/ Linux CLI tool with parameters
Accidentally write an infinite loop
Complete a learn to code class or book
Download a code library
Iterate over a list/array with a loop
Use a linter
Adjust example code for a project
Write a function
Find a bug and fix it
Write something in Markdown or LaTeX
Use the command line
Split your code into multiple files
Learn HTML basics
Learn basic syntax for a language
Write a "Hello World" program
Use block based coding

BASICS

START HERE

1 tile = 1 point

Total Score

Name: _____

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