

Fundamentals

Program

A file of binary instructions for the computers processor. A program is also called an app.

Compiler

A program that takes text based instructions from a text file, and converts them into binary instructions for you.

Interpreter

A program that reads through a text file and figures out what instructions we are writing as it reads the text.

Python

An interpreted programming language (the files for it end with .py)

Syntax

A specific way of writing something so that an interpreter or compiler can understand it.

Bit

A single positive or negative electric charge, represented by a `1` or a `0`.

ASCII

A mapping (aka encoding) of numbers to the symbols they represent.

Code

Human readable text instructions for a computer, in a text file.

Hexadecimal

A number system with a base of 16.

Binary

Information in the form of 0s and 1s.

Also a number system with a base of 2.

Unicode

A universal mapping (aka encoding) of numbers to the symbols they represent. The first 256 numbers map in the same way as ASCII.

Bug

When a programming language fails due to the programmer not expecting a possibility that causes the code to stop working correctly.

Debugging

Working to remove "bugs" (programmer errors) from code.

Algorithm

A way of solving a problem through a specific set of steps

Input

Information (aka list of contacts) you give to some code for it to work on

Output

Information (aka a contact) that code has worked on that the code gives back to you.

Coding Jargon (Terminology)

IDE (Integrated Developer Environment)

A software (aka app) that has a text editor (Like google docs), and a file viewer for viewing files.

Variables

A code-word we use to refer to some value. ``a = 12`` then ``a + 2 = 14``

Function

> A group of code that you can refer to using a name.
> Also a group of code that does something with an input. Sometimes functions can give an output.

Calling a function

Referring to a function, giving it the input it needs, and then having the code inside of it run ("run" just means the code was "processed" by the processor).

Loop

Code that goes in a circle, doing the same thing over and over (sometimes doing "looping" over every item in a list).