The way of the program

Algorithm

A general process for solving a category of problems.

Bug

An error in a program.

Byte code

An intermediate language between source code and object code. Many modern languages first compile source code into byte code and then interpret the byte code with a program called a virtual machine.

Compile

To translate a program written in a high-level language into a low-level language all at once, in preparation for later execution.

Debugging

The process of finding and removing any of the three kinds of programming errors.

Exception

Another name for a runtime error.

Executable

Another name for object code that is ready to be executed.

Formal language

Any one of the languages that people have designed for specific purposes, such as representing mathematical ideas or computer programs; all programming languages are formal languages.

High-level language

A programming language like Python that is designed to be easy for humans to read and write.

Interpret

To execute a program in a high-level language by translating it one line at a time.

Low-level language

A programming language that is designed to be easy for a computer to execute; also called machine language or assembly language.

Natural language

Any one of the languages that people speak that evolved naturally.

Object code

The output of the compiler after it translates the program.

Parse

To examine a program and analyze the syntactic structure.

Portability

A property of a program that can run on more than one kind of computer.

Print statement

An instruction that causes the Python interpreter to display a value on the screen.

Problem solving

The process of formulating a problem, finding a solution, and expressing the solution.

Program

a sequence of instructions that specifies to a computer actions and computations to be performed.

Python shell

An interactive user interface to the Python interpreter. The user of a Python shell types commands at the prompt (>>>), and presses the return key to send these commands immediately to the interpreter for processing.

Runtime error

An error that does not occur until the program has started to execute but that prevents the program from continuing.

Script

A program stored in a file (usually one that will be interpreted).

Semantic error

An error in a program that makes it do something other than what the programmer intended.

Semantics

The meaning of a program.

Source code

A program in a high-level language before being compiled.

Syntax

The structure of a program.

Syntax error

An error in a program that makes it impossible to parse — and therefore impossible to interpret.

Token

One of the basic elements of the syntactic structure of a program, analogous to a word in a natural language.