COSC2429 Intro to Programming

Week 1 - Glossary

activecode
: A unique interpreter environment that allows Python to be executed from within a web browser.

algorithm
: A general step by step process for solving a problem.

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*.

codelens
: An interactive environment that allows the user to control the step by step execution of a Python program

comment
: Information in a program that is meant for other programmers (or anyone reading the source code) and has no effect on the execution of the program.

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 function
: A function used in a program or script that causes the Python interpreter to display a value on its output device.

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.

programming language
: A formal notation for representing solutions.

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.

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

semantics
: The meaning of a program.

shell mode
: A style of using Python where we type expressions at the command prompt, and the results are shown immediately. Contrast with **source code**, and see the entry under **Python shell**.

source code
: A program, stored in a file, in a high-level language before being compiled or interpreted.

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.