Computer Science E-1: Understanding Computers and the Internet Harvard University Extension School Fall 2005

Lecture 11 Jargon Programming

algorithm A procedure used to solve a problem or perform a task. For example, Google's web search tool has an algorithm for searching webpages and ranking them by

relevance.

application A program meant for use by a person (e.g., a word-processing application as

opposed to system software).

argument A parameter used to specify with greater precision how a function or method

should behave.

branch A point in a program where the next line of instruction might not be the next

sequential line because of a condition that must be evaluated (e.g., if a is true then

do b, else do c).

bytecodes Machine-independent, compiled code that is intended to be used by an

intermediate rather than a CPU. For example, Java bytecodes are executable by the

Java Virtual Machine.

C A high-level programming language developed in the early 1970s by Ken

Thompson and Dennis Ritchie for use on the UNIX operating system. It has

become an industry standard used on many platforms.

C# An object-oriented programming language developed by Microsoft and based on C

and C++.

C++ An object-oriented programming language based on C.

code A set of computer instructions written in a programming language.

compiler A program that takes humanly readable code and converts it into machine code.

condition A requirement or qualification, the value of which determines the branch of

instructions to follow (e.g., if a is true then do b, else do c).

decrement To decrease the value of a variable (usually by 1).

event An action that must occur in order for some instruction to take place

(e.g., JavaScript's onMouseOver).

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function A sequence of instructions that are part of a larger program. Functions can "call"

(i.e., execute) other functions. Typically, a function is dedicated to a particular task.

increment To increase the value of a variable (usually by 1).

instruction A statement that tells a computer what to do (e.g., ADD).

interpreter A program used to run other programs by ingesting uncompiled code in real-time

rather than using compiled code.

Java A platform-independent, object-oriented programming language developed by Sun

Microsystems.

JavaScript An interpreted language created by Netscape to add functionality and dynamism to

web pages. JavaScript is not related to Java. At all. Not one bit. Please don't call

JavaScript "Java"!

language A set of "vocabulary" and rules with which a computer can be instructed to

perform tasks.

library A collection of "helper" programs called by an executable.

loop A cycle of instructions in a program.

method A named piece of code that is associated with a class or an object in object-

oriented programming.

object A conceptual entity in object-oriented programming that has associated with it data

and/or actions. For example, in JavaScript, a programmer could modify the

document object by calling its write method:

document.write("<h1>hello!</h1>");

object code Machine-readable instructions generated by a compiler.

parameter A mechanism with which the behavior of a function or method can be modified.

Perl Practical Extraction and Reporting Language. A language commonly used in

scripts and CGI applications.

program A set of instructions that compels a computer (perhaps at a user's bidding) to

perform some task(s).

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programmer One who writes programs.

programming The act of writing a program.

pseudocode A short-hand way of writing a program without the precise syntax of a formal

programming language. Writing "plain English" pseudocode is a good way for

new programmers to understand the logic behind their programs.

script A program written in an interpreted language. The term sometimes implies a short

program.

software See program.

source code The textual form of a program as written by its programmer(s).

variable A symbolic representation of or placeholder for an unknown value in a program.