

programmed . Computers can do many different jobs because they can be _____.

CPU . The job of the _____ is to fetch instructions, carry out the operations commanded by the instructions, and produce some outcome or resultant information.

arithmetic logic unit (ALU) and control unit . Internally, the CPU consists of the _____ and the _____.

disk . A(n) _____ is an example of a secondary storage device.

operating systems and application software . The two general categories of software are _____ and _____.

instructions . A program is a set of _____.

programming language . Since computers can't be programmed in natural human language, algorithms must be written in a(n) _____ language.

Machine language . _____ is the only language computers really process.

High-level . _____ languages are close to the level of humans in terms of readability.

Low-level . _____ languages are close to the level of the computer.

portability . A program's ability to run on several different types of computer systems is called _____.

Key word . Words that have special meaning in a programming language are called _____.

programmer-defined symbols. Words or names defined by the programmer are called _____.

Operators . _____ are characters or symbols that perform operations on one or more operands.

Punctuation . _____ characters or symbols mark the beginning or ending of programming statements, or separate items in a list.

syntax . The rules that must be followed when constructing a program are called _____.

variable . A(n) _____ is a named storage location.

defined (or declared) . A variable must be _____ before it can be used in a program.

input, processing, output . The three primary activities of a program are _____, _____, and _____.

Input . _____ is information a program gathers from the outside world.

Output . _____ is information a program sends to the outside world.

hierarchy chart . A(n) _____ is a diagram that graphically illustrates the structure of a program.

Main memory, or RAM, is volatile, which means its contents are erased when power is removed from the computer

Secondary memory, such as a disk or CD, does not lose its contents when power is removed from the computer . Both main memory and secondary storage are types of memory. Describe the difference between the two.

System software are programs that control and manage basic operations of a computer. i.e. operating systems, utility programs, software development tools.

Application software are programs that users use to solve specific problems or perform general operations. Programs that make a computer useful for everyday tasks. i.e. powerpoint, email programs, web browsers. What is the difference between system software and application software?

An operating system is a set of programs that manages the computer's hardware devices and controls their processes What type of software controls the internal operations of the computer's hardware?

A computer's CPU can only process instructions written in machine language. (a stream of binary numbers) Why must programs written in a high-level language be translated into machine language before they can be run?

High level language are closer to the level of human-readability than computer-readability.

Why is it easier to write a program in a high-level language than in machine language?

Object file: One the source code has been cleared of any syntax errors, it is compiled into machine language instructions called object code in an object file. This is not a complete program.

Executable file: One the object file has been properly linked with the necessary run-time library routines an executable file is created. Explain the difference between an object file and an executable file

A syntax error is the misuse of a key word, operator, punctuation, or other part of the programming language.

A logical error is a mistake that tells the computer to carry out at ask incorrectly or to carry out tasks in the wrong order. It causes the program to produce the wrong results What is the difference between a syntax error and a logical error?

The following pseudocode algorithm has an error. The program is supposed to ask the user for the length and width of a rectangular room, and then display the room's area. The program must multiply the width by the length in order to determine the area. Find the error.

area = width * length.

Display "What is the room's width?".

Input width.

Display "What is the room's length?".

Input length.

Display area. The area is being defined before the length and width values are entered.

A list of instructions used to write a program are called an Algorithm