

AP Computer Science Principles 2021 Scoring Guidelines

AP Computer Science Principles Create Performance Task Terminology (in order of appearance in the scoring guidelines)

Input: Program input is data that are sent to a computer for processing by a program. Input can come in a variety of forms, such as tactile (through touch), audible, visual, or text. An event is associated with an action and supplies input data to a program.

Program functionality: The behavior of a program during execution and is often described by how a user interacts with it.

Output: Program output is any data that are sent from a program to a device. Program output can come in a variety of forms, such as tactile, audible, visual, movement or text.

Purpose: The problem being solved or creative interest being pursued through the program.

Program Code Segment: A code segment refers to a collection of program statements that are part of a program. For text-based, the collection of program statements should be continuous and within the same procedure. For block-based, the collection of program statements should be contained in the same starter block or what is referred to as a “Hat” block.

List: A list is an ordered sequence of elements. The use of lists allows multiple related items to be represented using a single variable. Lists are referred to by different terms, such as arrays or arraylists, depending on the programming language.

Data has been stored in this list: Input into the list can be through an initialization or through some computation on other variables or list elements.

Collection type: Aggregates elements in a single structure. Some examples include: databases, hash tables, dictionaries, sets, or any other type that aggregates elements in a single structure.

List being used: Using a list means the program is creating new data from existing data or accessing multiple elements in the list.

Student-developed procedure / algorithm: Program code that is student-developed has been written (individually or collaboratively) by the student who submitted the response. Calls to existing program code or libraries can be included but are not considered student-developed. Event handlers are built in abstractions in some languages and will therefore not be considered student-developed. In some block-based programming languages, event handlers begin with “when”.

Procedure: A procedure is a named group of programming instructions that may have parameters and return values. Procedures are referred to by different names, such as method or function, depending on the programming language.

Parameter: A parameter is an input variable of a procedure.

Algorithm: An algorithm is a finite set of instructions that accomplish a specific task. Every algorithm can be constructed using combinations of sequencing, selection, and iteration.

Sequencing: The application of each step of an algorithm in the order in which the code statements are given.

Selection: Selection determines which parts of an algorithm are executed based on a condition being true or false. The use of try / exception statements is a form of selection statements.

Iteration: Iteration is a repetitive portion of an algorithm. Iteration repeats until a given condition is met or a specified number of times. The use of recursion is a form of iteration.

Argument(s): The value(s) of the parameter(s) when a procedure is called.