

Technology In Action, Complete, 14e (Evans et al.)
Chapter 10 Behind the Scenes: Software Programming

- 1) What is the first step of the system development life cycle (SDLC)?
 - A) Design
 - B) Analysis
 - C) Problem and Opportunity Identification
 - D) Development

- 2) A popular programming language which is known for having a large number of free libraries is _____.
 - A) Python
 - B) COBOL
 - C) Fortran
 - D) Assembly

- 3) _____ is the process of translating a task into a series of commands that a computer will use to perform the task.
 - A) Debugging
 - B) Programming
 - C) Analyzing
 - D) Diagramming

- 4) Which of the following is the final stage of the program development life cycle (PDLC)?
 - A) Making a Plan
 - B) Coding
 - C) Testing and Documentation
 - D) Debugging

- 5) The set of specific, sequential steps that describe exactly what a computer program must do to complete the work is called a(n) _____.
 - A) Beta code
 - B) structure chart
 - C) algorithm
 - D) working plan

- 6) Which of the following provides a visual representation of the patterns of an algorithm?
 - A) Flowchart
 - B) Pseudocode
 - C) Gantt chart
 - D) Flow analysis

- 7) Which refers to a text-based approach to documenting an algorithm?
 - A) Syntax
 - B) Pseudocode
 - C) Keywords
 - D) Data types

8) The keywords used in programming languages that use decisions to redirect the flow of a program are called _____.

- A) pseudocode
- B) control structures
- C) flowcharts
- D) operators

9) A loop decision point for an algorithm consists of three features: an initial value, a set of actions to be performed, and a(n) _____.

- A) class
- B) operator
- C) test condition
- D) documentation plan

10) Which is NOT a key factor a programmer uses in selecting the language for a project?

- A) Space available
- B) Number of inputs required
- C) Speed required
- D) Type of target application

11) _____ breaks down a problem into a series of high-level tasks and continues to break each task into successively more detailed subtasks.

- A) Object-oriented analysis
- B) Top-down design
- C) Bottom-up design
- D) Inheritance

12) Object-oriented _____ are defined by the information (data) and the actions (methods) associated with them.

- A) blocks
- B) classes
- C) units
- D) fields

13) In object-oriented programming, _____ allows a new class to automatically use all the data and methods of an existing class.

- A) reusability
- B) regression
- C) scalability
- D) inheritance

14) An example of a first-generation language is _____.

- A) BASIC
- B) machine language
- C) COBOL
- D) assembly language

- 15) The capability of moving a completed programming solution easily from one type of computer to another is known as _____.
- A) portability
 - B) scalability
 - C) transferability
 - D) inheritance
- 16) SQL is an example of a _____ category programming language.
- A) 2GL
 - B) 3GL
 - C) 4GL
 - D) 5GL
- 17) Which statement does NOT describe fifth-generation languages?
- A) They are the most "natural" of languages.
 - B) They use a set of short, English-based commands (such as ADD) that speak directly to the CPU.
 - C) Problems are presented as a series of facts or constraints rather than as a specific algorithm.
 - D) The system of facts can be queried.
- 18) Translating an algorithm into a programming language is called _____.
- A) interpreting
 - B) coding
 - C) compiling
 - D) executing
- 19) The process that converts program code into machine language is called _____.
- A) documentation
 - B) variable declaration
 - C) compilation
 - D) execution
- 20) _____ is the set of instructions that programmers have written in a higher-level language.
- A) Executable code
 - B) Base code
 - C) Compiled code
 - D) Source code
- 21) An integrated development environment (IDE) is a _____.
- A) program that helps interpret code
 - B) tool that converts one programming language into a different programming language
 - C) collection of tools that helps programmers write and test their programs
 - D) program that translates code into binary 1s and 0s and ignores comments

- 22) Division by zero is a _____ error that is caught when the program executes.
- A) compiler
 - B) runtime
 - C) syntax
 - D) logical
- 23) Before its final commercial release, a(n) _____ version of software may be offered to certain test sites or to interested users free or at a reduced cost.
- A) gamma
 - B) release to manufacturers (RTM)
 - C) beta
 - D) general availability (GA)
- 24) _____ is a programming language that can be used to create a wide range of Windows applications.
- A) Visual Basic
 - B) PHP
 - C) BASIC
 - D) HTML
- 25) Which language is the most popular language for writing Apple macOS applications?
- A) C++
 - B) HTML
 - C) Objective C
 - D) Java
- 26) A small Java-based program is called a _____.
- A) Java class
 - B) JSP
 - C) JavaScript
 - D) Java applet
- 27) Special symbols called tags are used in which of the following languages?
- A) C#
 - B) Java
 - C) HTML/XHTML
 - D) C++
- 28) Which of the following would NOT be used to build websites with interactive capabilities?
- A) Active Server Pages (ASP)
 - B) PHP (PHP: Hypertext Preprocessor)
 - C) FORTRAN
 - D) Java Server Pages (JSP)

29) _____ enables users to define their own data-based tags and facilitates the exchange of information between websites.

- A) HTML
- B) XHTML
- C) XML
- D) PHP

30) Corona and App Inventor can be used to develop _____.

- A) complex web applications
- B) apps for mobile devices
- C) Mac software
- D) Web pages