CHAPTER 8

- **Argument:** A variable passed to a method when it is invoked.
- **Array:** A data structure that groups together a collection of memory locations, all of which store data of the same type.
- **Assignment statement:** A programming instruction that assigns a value to a program variable.
- **Boolean condition:** An expression that evaluates to either true or false.
- **Boolean expression:** An expression that evaluates to either true or false.
- **Bytecode:** A very low-level code that is close to machine language.
- **Class:** A collection of methods.
- **Comments:** Elements of Java code whose purpose is to provide information to the human readers of the code; they are ignored by the compiler.
- **Compiler:** System software that converts high-level language instructions into a low-level code that is close to machine language.
- **Control statement:** A programming instruction that directs the flow of control and can cause it to deviate from the usual sequential flow.
- **Data type:** The designation of a variable that determines how many bytes will be needed to store the variable.
- **Debugging:** The process of locating and correcting program errors.
- **Divide and conquer:** A problem-solving strategy that divides a problem into smaller and smaller pieces.
- **Encapsulation:** A class consists of its subtask modules and its properties, and both components are "encapsulated" with the class.
- **Executable module:** The object code of a high-level language program.
- **Feasibility study:** Evaluating a proposed project and comparing the costs and benefits of a computer system for the project.
- **High-level programming language:** A third-generation programming language that overcomes the disadvantages of assembly language by providing a greater level of abstraction.
- **Identifiers:** Names in a programming language.
- **Inheritance:** Once a class A of objects is defined, a class B of objects can be defined as a "subclass" of A; objects in the B class will inherit all of the properties and be able to perform all the services of objects in A, but they may also be given some special property or ability.
- **Input statement:** A programming instruction that collects a specific value from the user for a variable within the program.
- **Keywords:** Words that have a special meaning in a particular programming language.
- **Method:** A section of code that performs a service.
- **Nonvoid method:** A method that returns a value.
- **Output statement:** A programming instruction that writes a message or the value of a program variable to the user's screen (or to a file on some permanent storage medium such as a disk).
- **Polymorphism:** The name of a service to be performed has several meanings, depending on the class of the object providing the service.
- **Problem specification:** Developing a clear, concise, and unambiguous statement of the exact problem to be solved.

- **Program design phase:** The phase of the software life cycle in which the appropriate objects are identified together with their data and the subtasks that they should be able to perform.
- **Program maintenance:** The process of adapting an existing software product to changing conditions.
- **Software life cycle:** The overall sequence of steps needed to complete a large-scale software project.
- **Static method:** A method that can be invoked by giving the class name, a dot, the method name, and a list of arguments.
- **Variable:** An identifier whose value changes as the program executes or is not known ahead of time but must be obtained from the computer user (or from a data file) as the program runs.
- **Void method:** A method that performs a task, but does not return a value.