2.3 Declaring Member Variables

There are several kinds of variables:

> - Member variables in a class—these are called *fields*.
>
> - Variables in a method or block of code—these are called *local variables*.
>
> - Variables in method declarations—these are called *parameters*.

The Bicycle class uses the following lines of code to define its fields:

public int cadence;

public int gear;

public int speed;

> - Field declarations are composed of three components, in order:
>   1. Zero or more modifiers, such as public or private.
>   2. The field's type.
>   3. The field's name.
> - The fields of Bicycle are named cadence, gear, and speed and are all of data type integer (int).
> - The public keyword identifies these fields as public members, accessible by any object that can access the class.

❑ **Types**
> - All variables must have a type.
> - You can use primitive types such as `int`, `float`, `boolean`, etc. Or you can use reference types, such as strings, arrays, or objects.

❑ Variable Names

➤ All variables, whether they are fields, local variables, or parameters, follow the same naming rules and conventions that were covered in the Language Basics lesson, <u>Variables—Naming</u>.

➤ In this lesson, be aware that the same naming rules and conventions are used for method and class names, except that

- the first letter of a class name should be capitalized, and
- the first (or only) word in a method name should be a verb.