

Ch.1 Objects & Classes

Java Source Code

Source Code

Our discussions of objects, classes, and instances can be applied to any object-oriented programming language.

In this class, we are using Java to *implement* our object-oriented designs.

Source code is the text used to instruct the computer on what we want it to do. The specific form of the source code (layout, spelling, punctuation) is known as syntax.

Compiling

All information on a computer, whether instructions or data, is represented as machine code, or binary.

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To convert from Java source code to machine language, the code is compiled. During this process, any syntax mistakes will cause an error, and the compilation will fail.

Return Values

Some methods have a return value, which you can think of as the answer to a question. The return value of a method is specified in the signature of the method.

```
String getName()
```

We have also seen the word `void` used as a return value, which actually means there is no return value (i.e., no question was asked).

```
void moveHorizontal(int distance)
```

Objects as Parameters

Recall that a method may have zero, one, or more parameters. If it has parameters, this is additional information that the method requires to perform its requested action.

Each parameter has a data type, which specifies the type of information required (e.g., int, String, boolean).

It is also possible to specify an object as a parameter, in which case the method will refer to the object as part of its action.

Class Exercises

Working alone or in pairs:

- read through to the end of the chapter, working through all examples along the way
- complete the provided exercises up to 1.25