Ch.2 Understanding Class Definitions

Java Source Code

Intro to the Ticket Machine

We will examine the source code to this project in some detail – how the class is defined, the different types of methods, and how they work together.

In addition, we will modify the behaviour of the Ticket Machine by changing existing methods or writing new methods.

Remember that the class contains the source code, so any changes we make will affect <u>all</u> objects which are instances of the class.

Class Wrapper

Whenever we create a new class, we must include a <u>class wrapper</u>. This is simply a framework to identify the class and provide an area for the source code that defines how the class works.

```
public class TicketMachine
{
    all source code goes between brace brackets
}
```

Source Code for a Class

The source code for a class will contain some or all of the following:

1. Fields – storage for data required by the object

2. Constructors – a special kind of method that properly sets up each object as it is created

3. Methods – the various possible actions and behaviours of the object

Fields (Instance Variables)

Fields are small amounts of space inside each object where data is stored. Each object may have its own values for each field, known as the state of the object.

A storage area for data is also known as a variable. Since each instance of the class gets these fields, they are also known as instance variables.

Comments in Code

When writing or modifying source code, it is usually good practice to make the code as understandable as possible.

Comments are plain English statements added to clarify the "how and why" of code.

```
// a single line comment

/*
    a multiple line comment
*/
```

Assigned Work

Read pages 17-24

Complete all exercises along the way (up to 2.15)