

# **The Object-Oriented Thought Process**

## **Chapter 04**

### The Anatomy of a Class

# The Name of the Class

The name of the class is important for several reasons.

- To identify the class itself.
- The name must be descriptive.
- The choice of a name is important because it provides information about what the class does and how it interacts within larger systems.

# Comments

Regardless of the syntax of the comments used, comments are vital to understanding the function of a class.

- While comments are vital to the documentation and maintenance of code, it is important not to over-comment.

# Attributes

Attributes represent the state of the object because they store the information about the object.

- In many designs all attributes are private.
- Keeping the interface design as minimal as possible.
- The only way to access these attributes is through the method interfaces provided.

# Methods

Methods represent the behavior of the object because they provide the functionality.

- Methods are defined by their signature and are used to invoke certain behaviors.
- One of the uses of methods is as accessor methods.

# Accessor Methods

Controlled access to attributes is provided by methods.

- These methods are called *accessors*.
- Sometimes accessors are referred to as getters and setters.

```
public void setName(String iName) {  
    name = iName;  
}  
public String getName() {  
    return name;  
}
```

# Public Methods

Both the constructors and the accessor methods are declared as public and are part of the public interface.

- Other methods can be part of the public interface as well.

```
public void giveDestination (){  
}
```

# Private Methods

It is common for methods in a class to be hidden from other classes. These methods are declared as private:

```
private void turnRight(){  
}  
private void turnLeft() {  
}
```