Subclassing, such as in

```
class A extends B {...}
```

should model the real world: It should be the case that an A actually is a B.

As an example, a marsupial is a mammal, and a kangaroo is a marsupial. Therefore, the following declarations make sense:

```
class Mammal {...}
class Marsupial extends Mammal {...}
class Kangaroo extends Marsupial {...}
```

It would not make sense to have class Cat or class House extend class Marsupial because cats and houses are not marsupials.

The distinctive feature of marsupials is that they have a pouch —or at least the females do. In the picture of a kangaroo above, you can see the mother kangaroo’s joey¹ in her pouch.

This illustrates a general notion that a subclass provides more properties, or more information, in the form of fields or methods. A method could be entirely new or could override a method in the superclass.

Marsupials² have a pouch; other mammals don’t. Class Marsupial could have a boolean field joey to indicate, for a female, whether she has an infant in her pouch.

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¹ A marsupial’s infant is known as a joey.
² Marsupial is derived from the word marsupium, which is the technical term for the pouch.