

For example, the signature of the attribute, deposit, in the Bike class is:

```
#deposit : Integer = 0
```

- # indicates the visibility of the attribute; in this case it is protected, i.e. it cannot be viewed or modified by any other object but it can be inherited. It is normal practice to make attributes private or protected. The attribute deposit must be protected rather than private because it is inherited by SpecialistBike.
- deposit is the *name* of the attribute; this is the only compulsory part of an attribute's signature.
- Integer is its *type*.³
- 0 – when a Bike object is created by its constructor, deposit is set to zero. An attribute should always be set to a default value rather than be unspecified. If unspecified it might pick up a value left over from a previous use of its memory location.

Operation signatures. We also need to specify operation signatures. Operations can take parameters and return values. The UML format of an operation signature is:

```
visibility name (parameter list) : return-type
```

For example:

```
+findBike(bike# : Integer) : Bike
```

- + indicates the visibility of the operation. This is a public operation, i.e. it can be used by any object.
- findBike is the name of the operation.
- bike# : Integer is the parameter for this operation; there can be more than one parameter in which case parameters are separated by commas. Each parameter is specified in terms of its name and type, in this case the parameter name is bike# and its type is Integer.
- The type returned by this operation is Bike, i.e. the object identifier of an object of the Bike class.

3. The data types we mention in this chapter are not language specific. Common primitive data types include Integer, Floating Point, Character, Boolean. Most languages also provide String, Date, Money.