The UML Class Diagram

Using The UML (Unified Modeling Language) Class Diagram to Describe a Class

The UML Class Diagram provides a means of describing the important components of a class. Remember that a class is a blueprint or template for creating objects and that an object has attributes (data) and operations (procedures). The Java terms for attributes are fields or instance variables and the operations are called methods.

The UML Class Diagram can be as simple as a box containing the class name. At this level, there are obviously no details about the components of the class. A more detail leveled UML Class Diagram includes two additional boxes. The second box contains the attributes (i.e. the instance variable names). The third box contains the operations (i.e. methods).

The UML Class Diagram may include an abundance of additional information such as the access modifiers for fields and methods, the return types of methods, the data types of the instance variables, and the formal parameters (and their data types) for the methods.

Attribute name
(Variable name,
aka,
Instance variable)

Class Name

Access Modifier
(private)

```
            DailyTemperature

- current : double
- low : double
- high : double
- date : String


+ DailyTemperature()
+ setCurrent(double) : void
+ setLow() : void
+ setHigh() : void
+ setDate(String) : void
+ getCurrentTemperature() : double
+ getLow() : double
+ getHigh() : double
+ getDate() : String
+ convertToCelsius(double) : double
```

Attributes

Attribute Type
(Variable data type)

Constructor
(Exactly the
same name
as the class)

Methods

Access Modifier
(public)

Method Name

Parameter Type
(Input to method)

Return Type
(Output from method)