# Example 1: The Car Class

Suppose you need to write a traffic simulation program that watches cars going past an intersection. Each car has a speed, a maximum speed, and a license plate that uniquely identifies it. In traditional programming languages you'd have two floating point and one string variable for each car. With a class you combine these into one thing like this.

class Car {  
  
 String licensePlate; // e.g. "New York 543 A23"  
 double speed; // in kilometers per hour  
 double maxSpeed; // in kilometers per hour  
  
}

These variables (licensePlate, speed and maxSpeed) are called the member variables, instance variables, or fields of the class.

Fields tell you what a class is and what its properties are.

An object is a specific instance of a class with particular values (possibly mutable) for the fields. While a class is a general blueprint for objects, an instance is a particular object.

Note the use of comments to specify the units. That's important. A unit confusion between pounds and newtons led to the  [loss of NASA's $94 million Mars Climate Orbiter](http://www.wired.com/news/news/technology/story/22031.html). (Believe it or not that's a cheap mission by NASA standards. If you're rich enough that you don't have to worry about losing $94 million worth of work, you don't have to put comments in your source code. Everybody else has to use comments.)

How would you write an Angle class?

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