

# Java Programming for Beginners

## Lab Exercise 6

1) Build a class to manage a simple “Car” object. Which components would a car be expected to have? Which of these components can be primitives? Which should be objects themselves?



2) Now, let’s assume that we also have a “Person” class whose instances can interact (drive) “Car” objects. Based on this model, assign protection levels to the class components of the “Car”. Which components must logically be **public** members, which can be **private**? (For example, if your “Car” class contains a SteeringWheel object, this object should probably be public, or have a **public** “get” method, so that the driver can interact with it.)

3) In Java, objects and primitives operate under different sets of rules. Declare separate variables of type **int** and **Integer** (a Java class that represents an int as an object) without initializing them, like this:

```
int intVar ;  
  
Integer integerVar;
```

If we try to use these variables as values, Java will stop us because no values have been assigned to them yet. However, if we change the declaration of **integerVar** to read:

```
Integer integerVar = null;
```

Java will allow us to reference this value. But, our code will still break if we attempt to use it as a value. What does it mean to assign the value “null”? Why can we not assign the value “null” to a primitive?

