

**Counter class:**

Attributes:

* start: starting value of the counter
* count: the current value of the counter

Methods:

* Counter(value: int): constructor
* increment(): this method increments the count by one
* reset(): this method resets the count to its starting value
* toString(): this method returns the object info in the following format ‘( count )’

**AdvancedCounter class**:

Attributes:

* amount: the amount to increment the count with

Methods:

* AdvancedCounter(value: int, amount: int): constructor
* increment():this method increments the *count* by *amount*

**LimitedCounter class:**

Attributes:

* limit: the upper limit that the counter stops at

Methods:

* LimitedCounter(value: int, limit: int): constructor
* increment(): this method increments the count by one only if the limit hasn’t been reached. It prints a message saying the limit has been reached otherwise.

Exercise 1: Translate into Java-code the class Counter, AdvancedCounter, and LimitedCounter.

Exercise 2: Write a test class with a main method and do the following:

* create three objects of type Counter, AdvancedCounter and LimitedCounter
* increment the three of them once
* print the value of the counter for each
* increment the LimitedCounter object to its limit
* reset it and print its value