**public** **class** Counter {

**protected** **int** start;

**protected** **int** count;

**public** Counter(**int** value) {

**this**.start = **this**.count = value;

}

**public** **void** increment() {

count++;

}

**public** **void** reset() {

count = start;

}

**public** String toString() {

**return** "(" + count + ")";

}

}

**public** **class** AdvancedCounter **extends** Counter {

**private** **int** amount;

**public** AdvancedCounter(**int** value, **int** amount) {

**super**(value);

**this**.amount = amount;

}

**public** **void** increment() {

count += amount;

}

}

**public** **class** LimitedCounter **extends** Counter {

**private** **int** limit;

**public** LimitedCounter(**int** value, **int** limit) {

**super**(value);

**this**.limit = limit;

}

**public** **void** increment() {

**if** (count >= limit) {

System.***out***.println("Reached limit, cannot increment anymore.");

}

**else** {

count++;

}

}

}

**public** **class** TestCounter {

**public** **static** **void** main(String[] args) {

Counter basic = **new** Counter(0);

Counter limited = **new** LimitedCounter(0, 3);

Counter advanced = **new** AdvancedCounter(0, 2);

basic.increment();

limited.increment();

limited.increment();

limited.increment();

limited.increment();

advanced.increment();

System.***out***.println(basic.toString());

System.***out***.println(limited.toString());

System.***out***.println(advanced.toString());

limited.reset();

System.***out***.println(limited.toString());

}

}