Testing with JUnit: Performance Assessment

Write JUnit test cases with the following descriptions, to test the Counter class, which includes a full implementation of the class.

Your application needs a Counter class that will be used to count active objects. When a new Counter object is created, it has a count of zero. The Counter object has three methods:

- up() increases the counter value by 1, to a maximum of 10. It then returns the new counter value.
- down() decreases the counter value by 1, to a minimum of 0. It then returns the new counter value.
- getCount() returns the current counter value (without changing it).

Write two test cases for this class, as listed. (Note that the two test cases listed here are not a full test suite for the Counter class; more tests would be required to test it fully.)

- Create a test that verifies that the up() method causes the counter to increase.
- Create a test that verifies that the up() method does *not* increase the counter if the counter's value is already 10.