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## Using ASSERT and EXPECT in GoogleTest



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While ASSERT\_\* macros cause termination of test case, EXPECT\_\* macros continue its evaluation. I would like to know which is the criteria to decide whether to use one or the other.

c++ unit-testing googletest



## 4 Answers

Use ASSERT when it's critical the test passes. (For example, if it doesn't pass then the rest of the program won't work.) Use EXPECT when it's a test that can afford to fail (and will allow you to run your program.)

The rule of thumb is: use EXPECT unless you need something to work for the entirety for the tests, in which case you should use ASSERT since going on is meaningless.

This is echoed within the primer:

Usually EXPECT\_\* are preferred, as they allow more than one failures to be reported in a test. However, you should use ASSERT\_\* if it doesn't make sense to continue when the assertion in question fails.





7 Standard example: before checking contents of container you ASSERT it's size, because it doesn't make sense to check EXPECTations on items that might not even exist (besides, your test would most likely crash if you try to get nth element of empty container). – chalup Apr 2 '10 at 7:00



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Use EXPECT\_ when you

• want to report more than one failure in your test

Use ASSERT\_ when

• it doesn't make sense to continue when the assertion fails

Since  $\mbox{ASSERT}_{-}$  aborts your function immediately if it fails, possible cleanup code is skipped. Prefer  $\mbox{EXPECT}_{-}$  as your default.

edited Aug 4 '14 at 18:37

answered Apr 2 '10 at 6:30



Check the following link: Effective C++ Testing Using GoogleTest (slide 23). There is a good guideline/advice on the use of EXPECT vs ASSERT.

answered May 28 '10 at 5:08



In addition to previous answers...

ASSERT\_ does not terminate execution of the test case. It returns from whatever function is was used in. Besides failing the test case, it evaluates to return; , and this means that it cannot be used in a function returning something other than <code>void</code> . Unless you're fine with the compiler warning, that is.

EXPECT\_ fails the test case but does not return; , so it can be used inside functions of any return type.

answered Feb 10 at 16:05



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