



Testing the Tests

Effective Programming in Scala

Testing the Tests

How can we make sure that the tests we have written are correct in the first place? How can we assess the quality of the tests? Should we write tests for the tests?

Test Coverage

Test coverage reports the code paths that are untested.

However, it does not tell you if your input domain is well covered, nor if your existing tests are correct.

In Scala, you can enable test coverage by using the compiler plugin scoverage.

Mutation Testing & Test-Driven Development

One way to check that a test is correct is to introduce a bug in a program and check that the test catches the bug.

In Scala, we do it the other way around by implementing a test *before* implementing a bugfix. By running the test on the not yet fixed program, you can check that the bug is present, and you can check that you fix it by running the test after.

Summary

Why should we trust programs with the task of checking that other programs are correct?

Keep in mind that tests are code too.

They need to be maintained.

They may have bugs.