Improving Tests



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Test Code != Application Code



Module Overview



DAMP Principle

Focused Tests

Test Template



DRY

Don't Repeat Yourself

DAMP

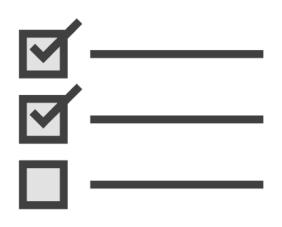
Descriptive and Meaningful Phrases

WET

Write Everything Twice



Reasons for Duplication in Tests



Multiple tests may test the same function

Very DRY test code may:

Be less readable

Become too complex (tests should be simple)

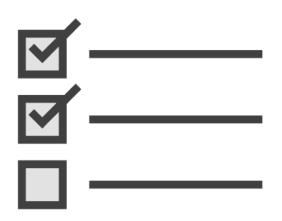




Test one thing at a time (i.e. apply SRP to tests)



Keep Your Tests Focused



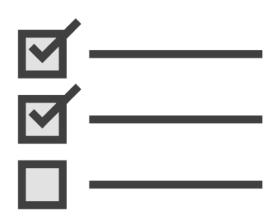
Verify one thing per test

1 assertion per test (some exceptions exist)

No "if" branching



Benefit of Focused Tests



Fewer points of failure

Higher stability

Faster failure investigation

Overall higher maintainability



Test Patterns

AAA

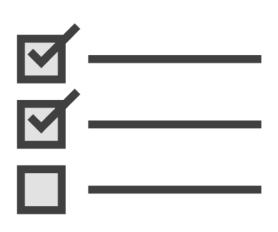
Arrange - Act - Assert

BDD

Given - When - Then



AAA



Arrange

Setup and initialize objects and the environment

Act

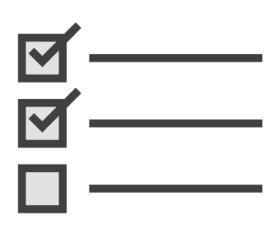
Exercise the function(ality) under test

Assert

Verify the result



BDD



Given

Some condition

When

We do some action

Then

The expected result is...



Summary



Prefer DAMP in tests



Tests should verify one thing



Test templates and patterns

