Algorithms

Produced by

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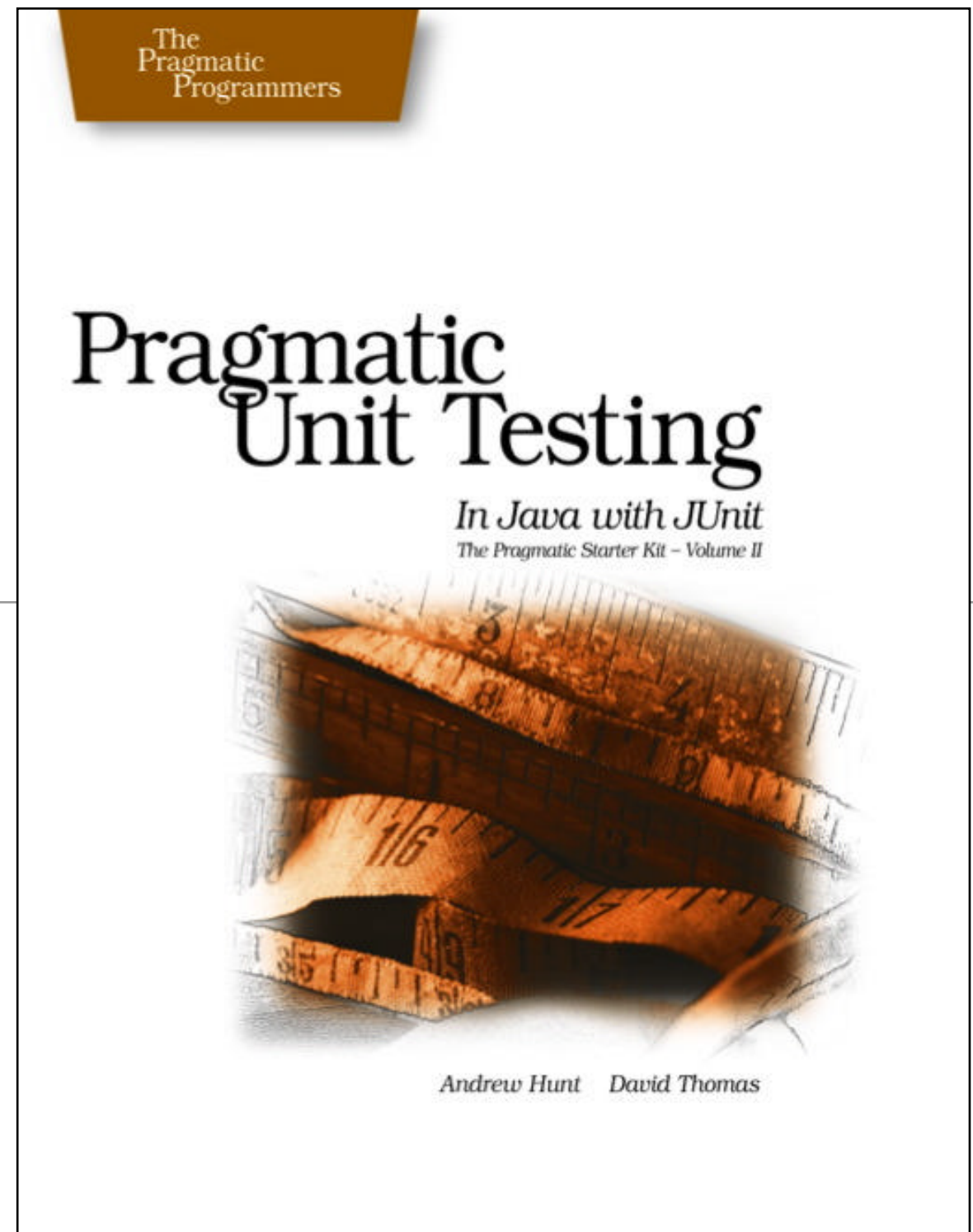http://www.wit.ie
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CORRECT Boundary Conditions

"The Right-BICEP"

C.O.R.R.E.C.T.

- **C**onformance - Does the value conform to an expected format?

- **O**rdering - Is the set of values ordered or unordered as appropriate?

- **R**ange - Is the value within reasonable minimum and maximum values?

- **R**eference - Does the code reference anything external that isn't under direct control of the code itself?

- **E**xistence - Does the value exist (e.g., is non-null, nonzero, present in a set, etc.)?

- **C**ardinality - Are there exactly enough values?

- **T**ime (absolute and relative) - Is everything happening in order? At the right time? In time?
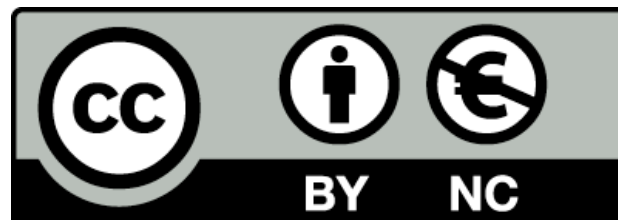
Right B.I.C.E.P.

- Guidelines of some areas that might be important to test:

    - **Right** - Are the results right?

    - **B** - Are all the boundary conditions CORRECT?

    - **I** - Can you check inverse relationships?

    - **C** - Can you cross-check results using other means?

    - **E** - Can you force error conditions to happen?

    - **P** - Are performance characteristics within bounds?

Assignment 1

- Approx 20% of grades for testing strategy

- This will require a JUnit test case + a series of tests

- For the tests you write - indicate in a comment the 'type' of test you are intending.

- This 'type' can be drawn from the 'pragmatic' guidelines:

  - CORRECT (7 guidelines)

  - RIGHT Bicep (5 guidelines)

- For top grades, we would expect up to 7-10 unit tests, spanning 4-6 of the guidelines

- Coverage will be measured (but with modest expectations).

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