

CSE4415/SWE5415

Testing 2

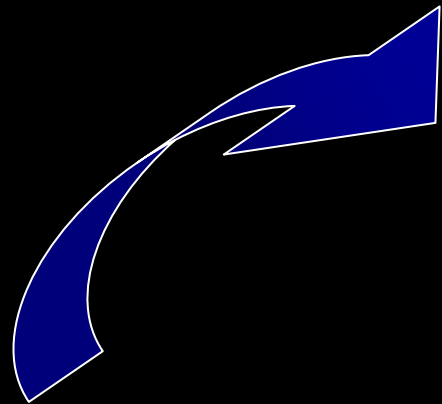
Class Intro/TDD Intro
8/23/2005

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TDD

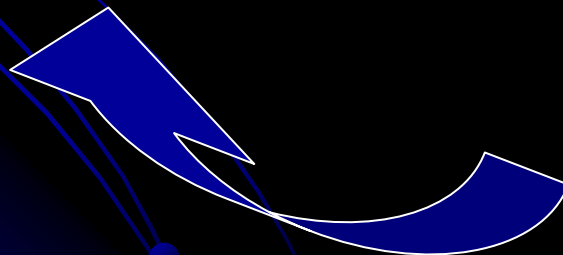
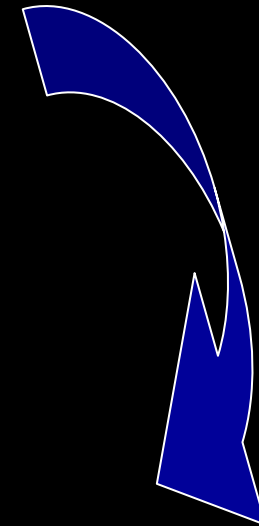
Write Test



Refactor



Write Code



TDD Principles

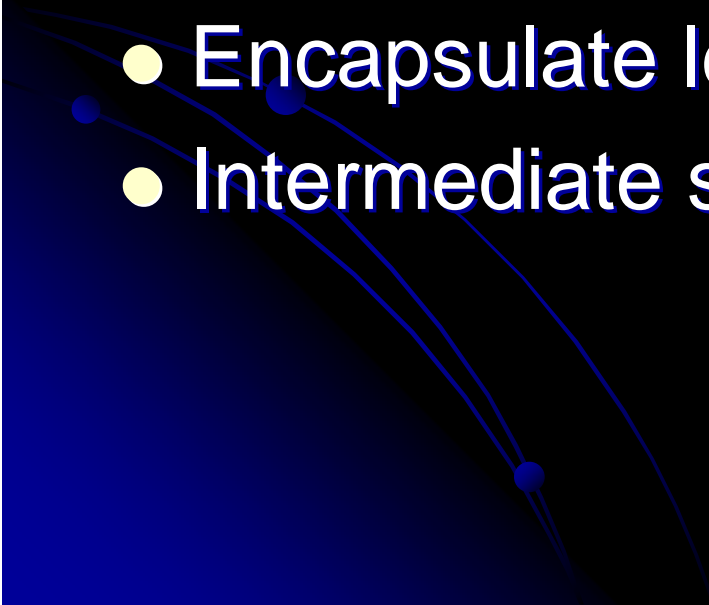
- You maintain an exhaustive suite of Programmer Tests
- No code goes into production unless it has associated tests
- You write the tests first
- The tests determine what code you need to write

The Test-First Traffic Light

- **Green:** Initially, the program works.
- **Yellow:** Add a test that calls a new (unimplemented) feature; you get a syntax error because the method isn't even defined yet.
- **Red:** You add a stubbed version of the routine, which fails the test (presumably).
- **Green:** You fix the routine, and all tests run.

Source: Bill Wake, "Games for Programmers"
<http://www.xp123.com/g4p/0104b/index.shtml>

TDD Benefits

- Rapid feedback
 - Interface before algorithm
 - Know when you're finished
 - Change the code with confidence
 - Encapsulate learning
 - Intermediate stability
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For Next Time

- Read Astels, Chapters 1 & 2
- Read Rainsberger, Chapters 1 & 2

