INTRO TO TESTING

minimizing mistaqes

QUESTIONS YOU MIGHT HAVE

- **Why** test?
- **How** to test?
- **What** to test?

WHY DO I NEED TO WRITE TESTS?

WHY

- Reliability
- Refactorability
- Documentation
- Accuracy
- Value in industry

HOW TO WRITE MY TESTS?

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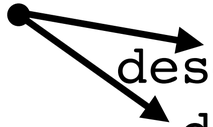

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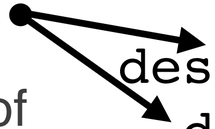

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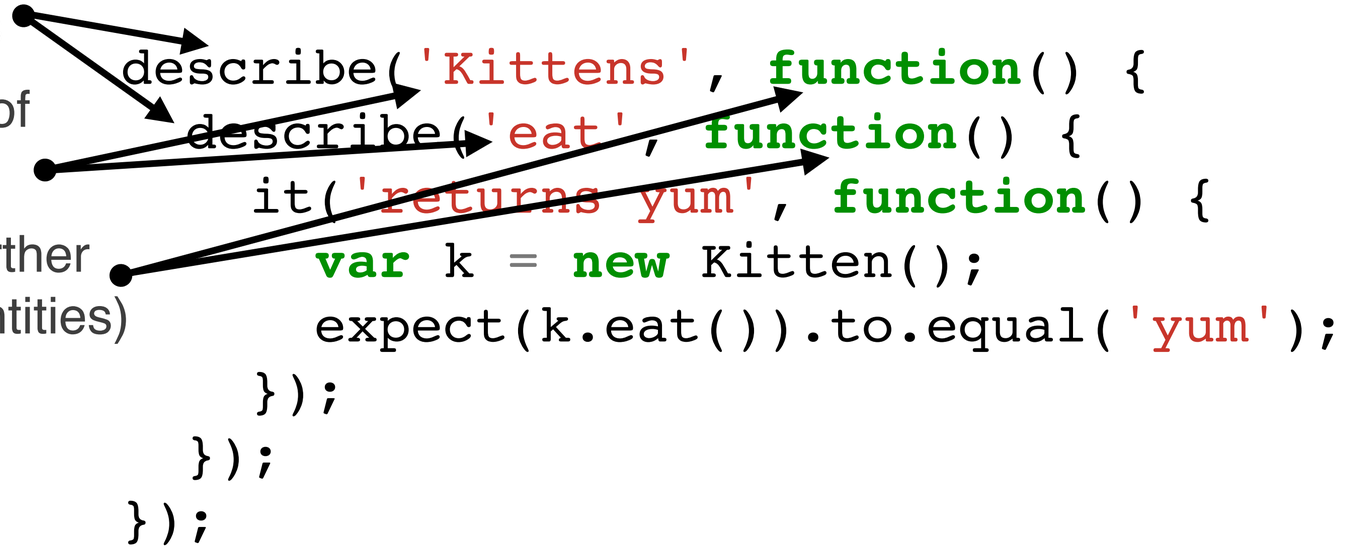

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Assertion: making your expectations

1) There can be many assertions within one it block
2) If something is `thrown` *at any point* in an it block, the spec stops and **fails**

TOOLS

- Jasmine and Mocha/Chai are two popular testing frameworks in the JavaScript ecosystem
- We chose mocha/chai for the popularity and flexibility
- However, there are many other options out there!

simple, flexible, fun

+

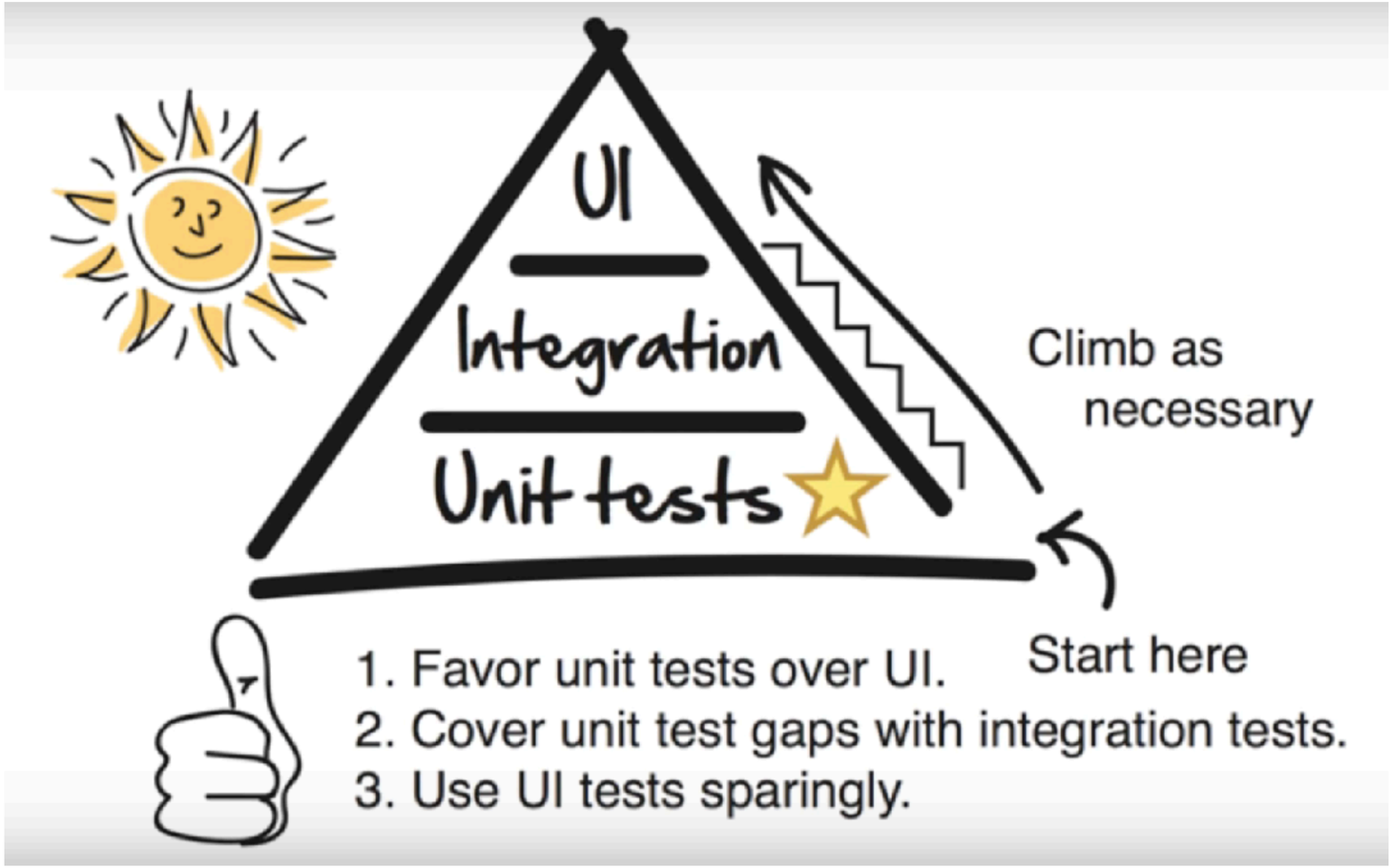
Chai Assertion Library

WHAT DO I TEST FOR?

WHAT

- **Test for behavior, *not* implementation**
  - ✗ “I expect this multiply function to use the add function”
  - ✓ “I expect this multiply function to return 6 given the inputs 2 and 3”
- **Implementation details change all the time, but intended behaviors generally do not**

TEST PYRAMID



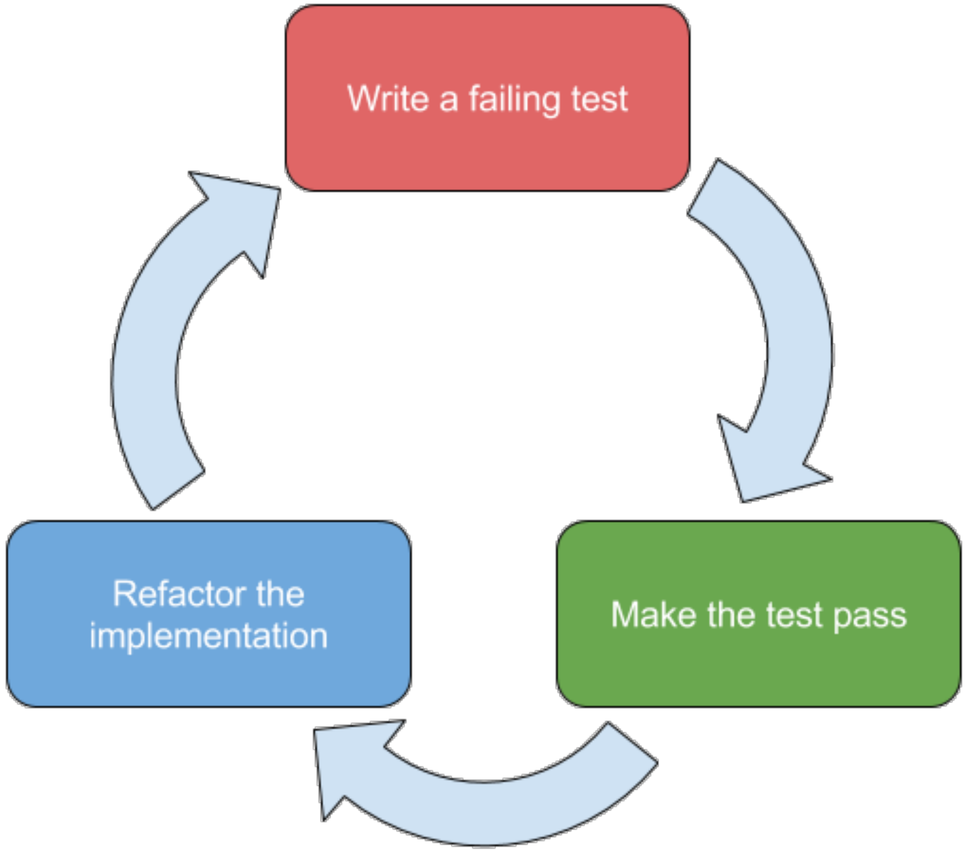
source http://www.agilenutshell.com/

TEST-DRIVEN DEVELOPMENT

- **Write tests first, *then* write code to pass the tests**

- Focus on what code does
- Have a goal
- Ensure you don’t blow off automated testing
- Improve design and modularity

TEST-DRIVEN DEVELOPMENT



AUTOMATED TESTING ≠ TEST-DRIVEN DEVELOPMENT