

# Unit Testing

**Coding to specifications**

# Unit Testing

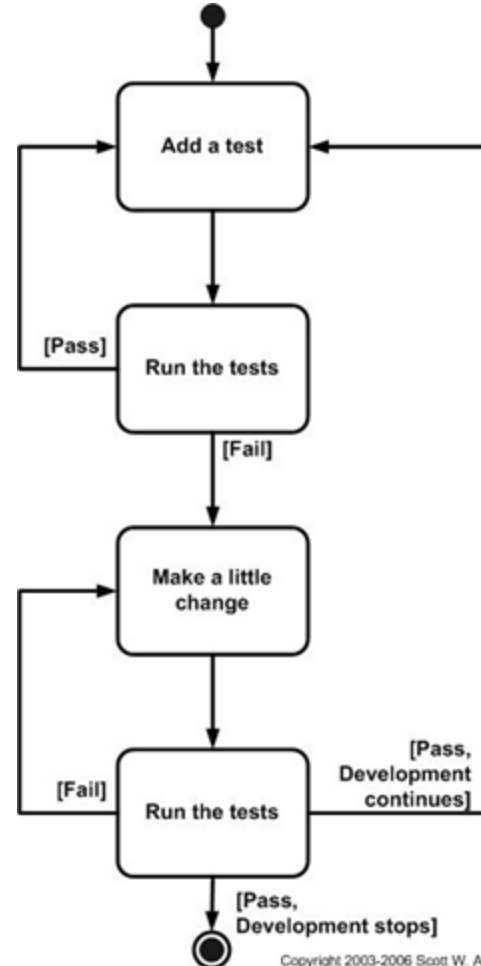
- Testing small units of your code.
- Helpful when you wanna make sure everything is working perfectly (without repeating some actions to get there).
- Also helpful in pinpointing where the code is going wrong.
- The unit testing framework we'll be using is **Junit**

# Parts of a unit test

- **Arrange**
  - This is any setup necessary to prepare for the behavior to test. You assume the thing you wanna test works.
- **Act**
  - You do the thing you wanna test. You usually name the method after the thing you wanna test.
- **Assert**
  - Verify the behavior was as expected, sometimes on the same step as ACT.

# Test Driven Development (TDD)

1. Write tests that fail
2. Implement code to make tests pass



# Discussion

- What is unit testing?
- Why is unit testing important?
- What are the parts of a unit test
- What is test driven development? When have you applied TDD?

# Resources

- [A Guide to JUnit 5](#)
- [JUnit 5 Tutorial](#)