

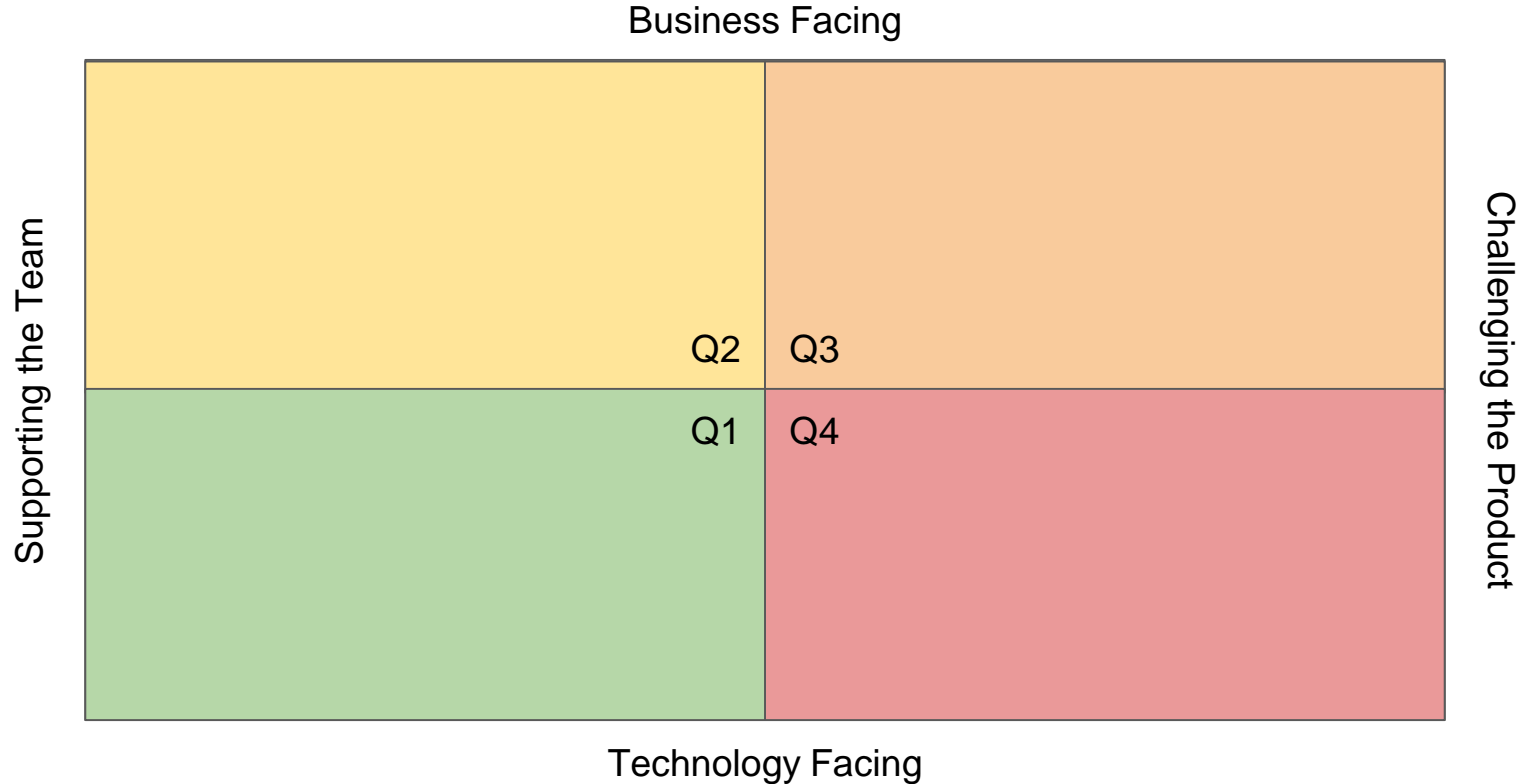
Why test?

- Maintainability
Refactor & find errors
- Extensibility
Create new features
- Documentation
Tests represent expected behavior
- Code Design
Less YAGNI code
- ...

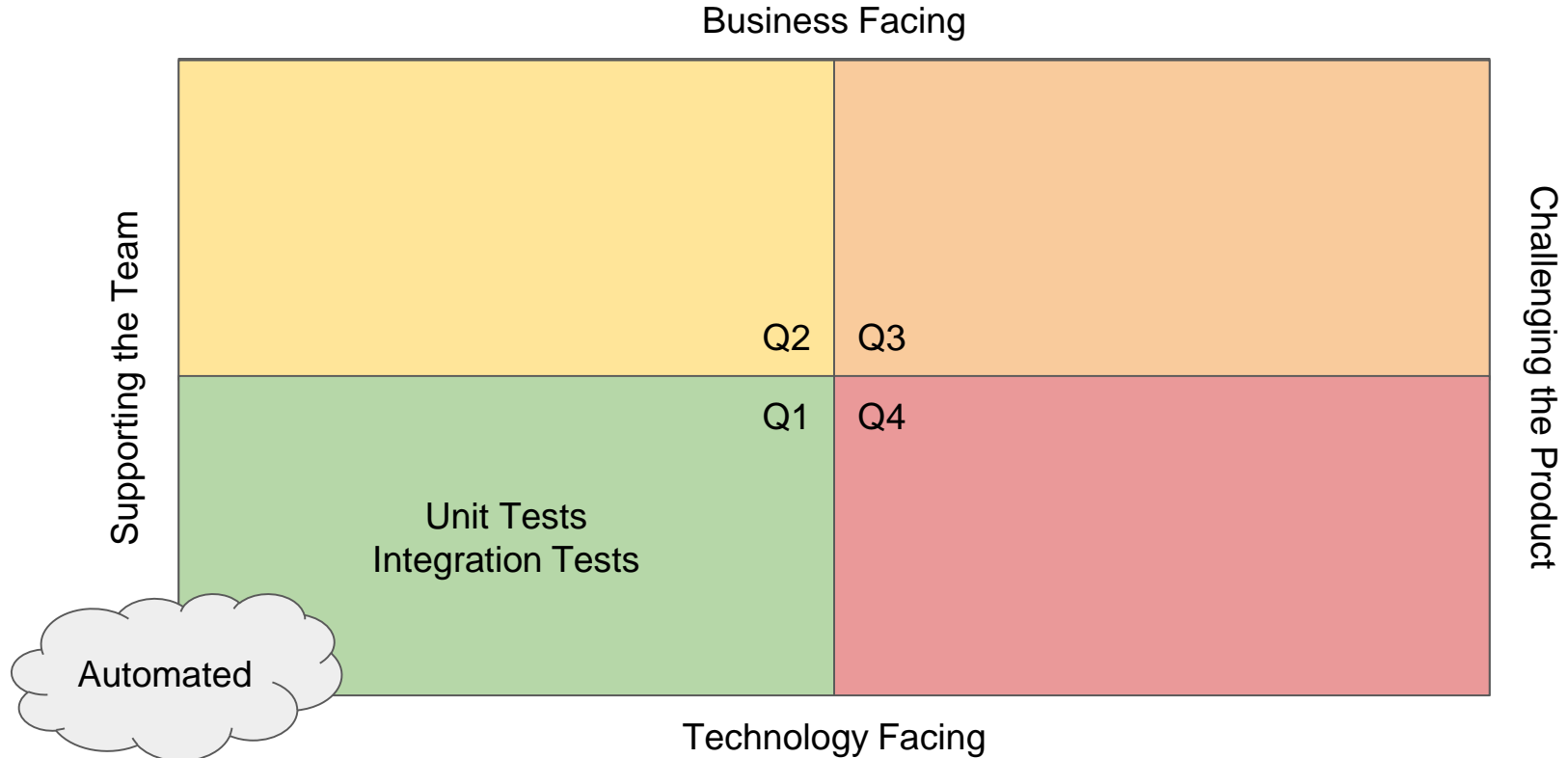
What is a test?

```
const actual = functionUnderTest();  
const expected = 'Result of function';  
expect(actual).toBe(expected);
```

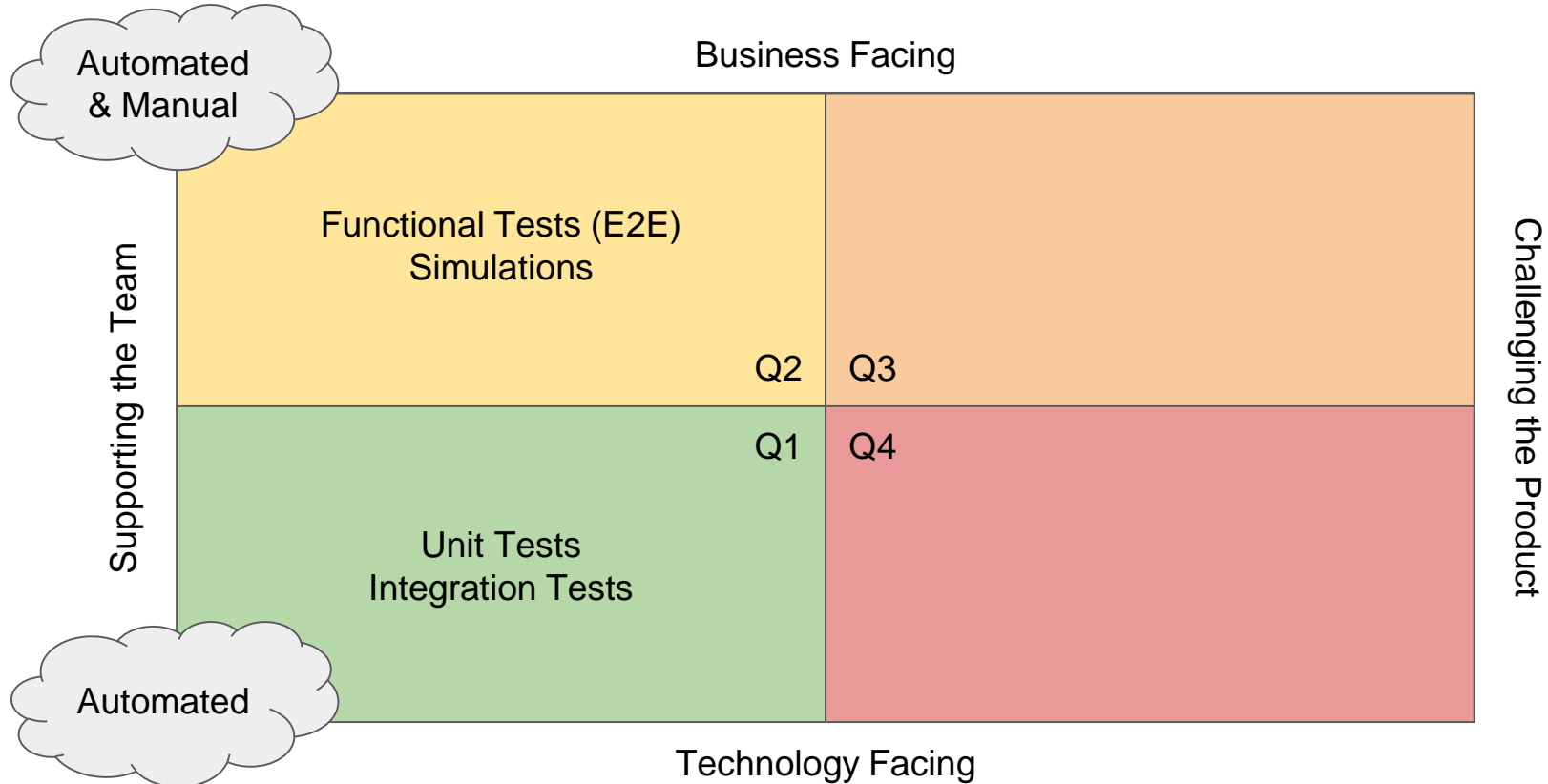
What is a test? (continued)



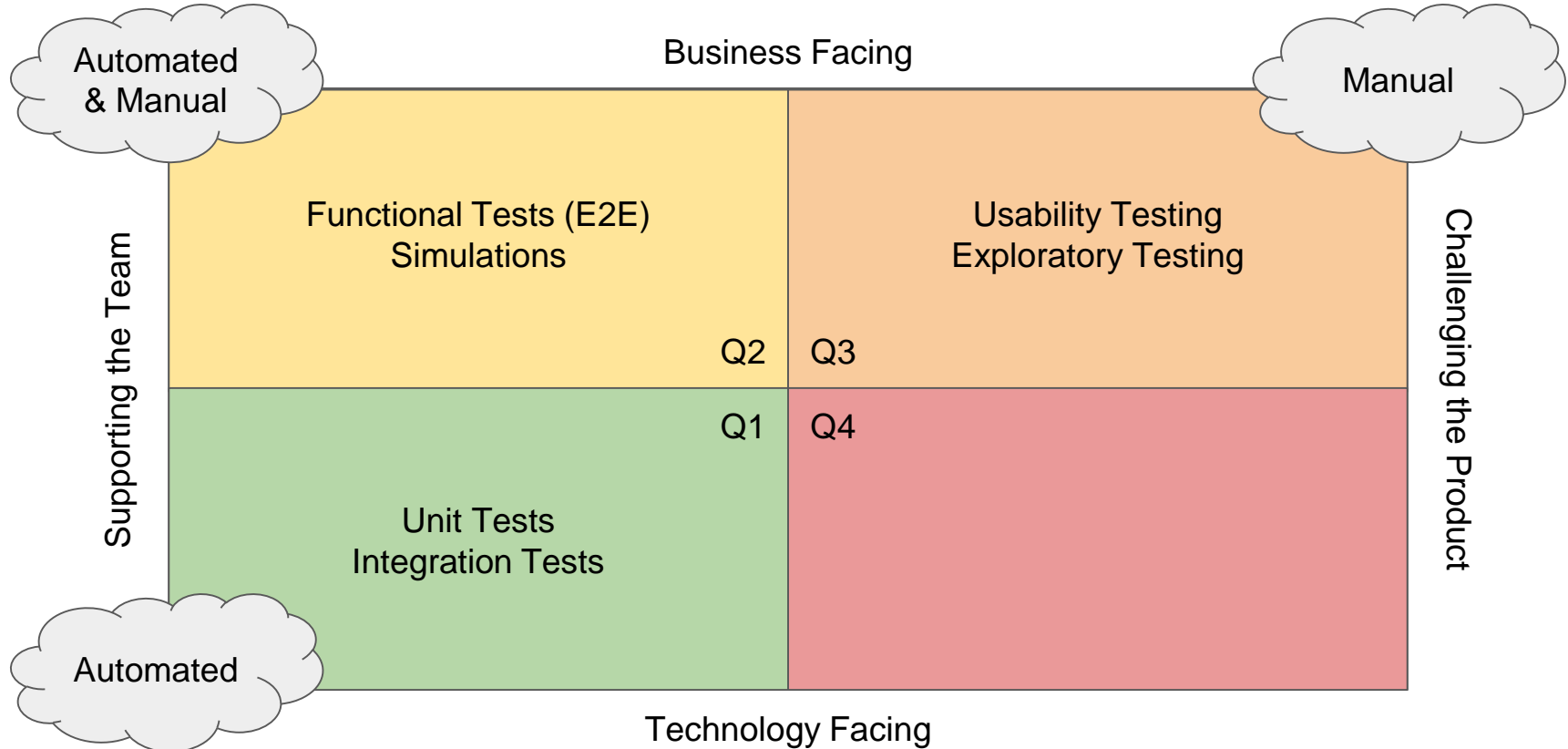
What is a test? (continued)



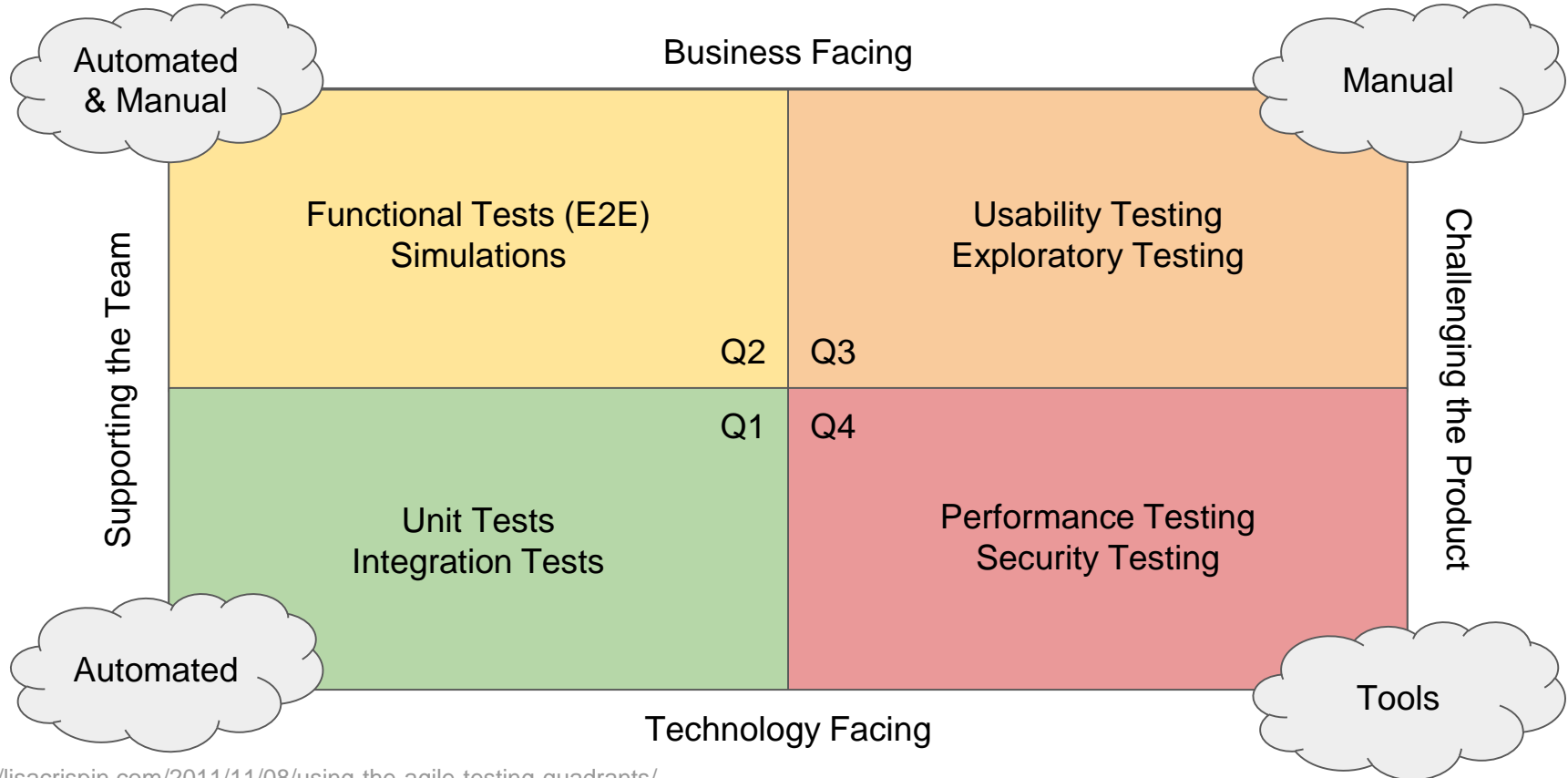
What is a test? (continued)



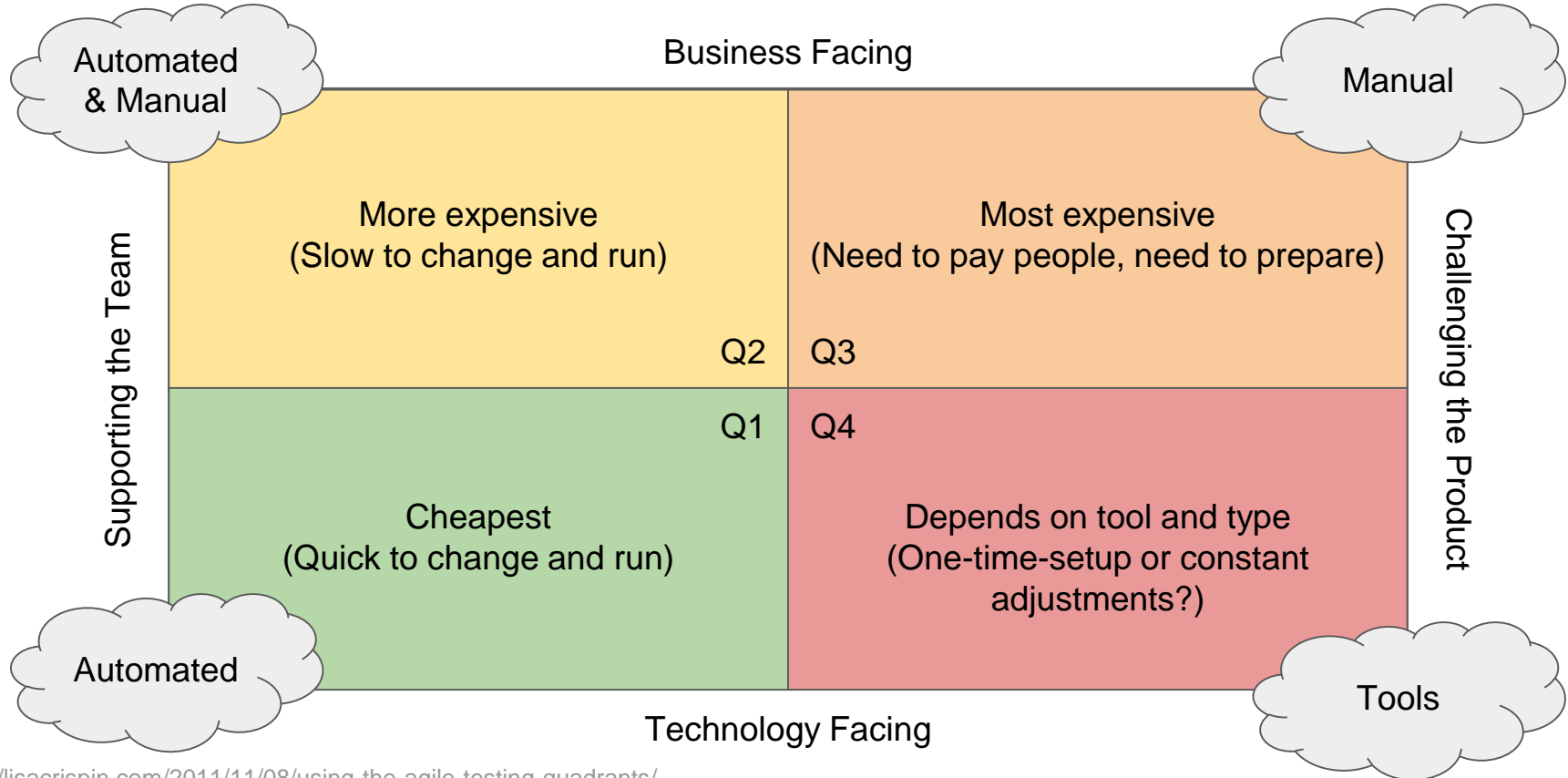
What is a test? (continued)



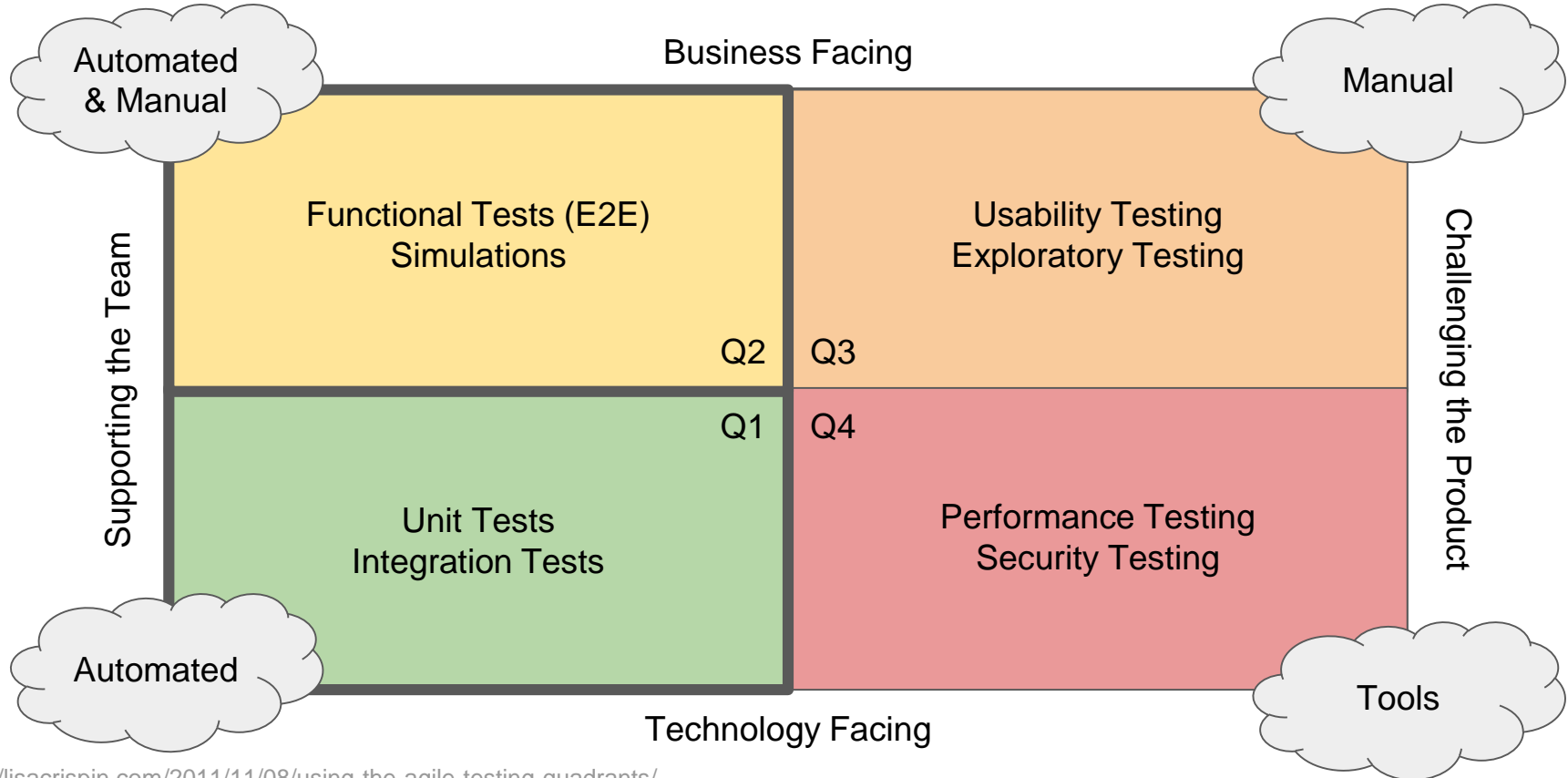
What is a test? (continued)



What is a test? (continued)



What is a test? (continued)



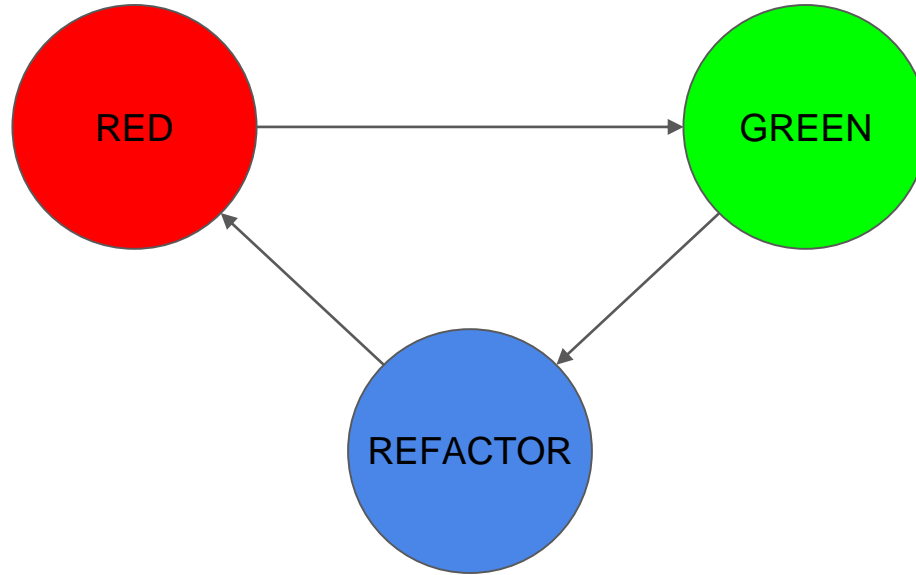
What is a unit test?

Unit tests are typically automated tests written and run by software developers to ensure that a section of an application (known as the "unit") meets its design and behaves as intended. (*Wikipedia: Unit testing*)

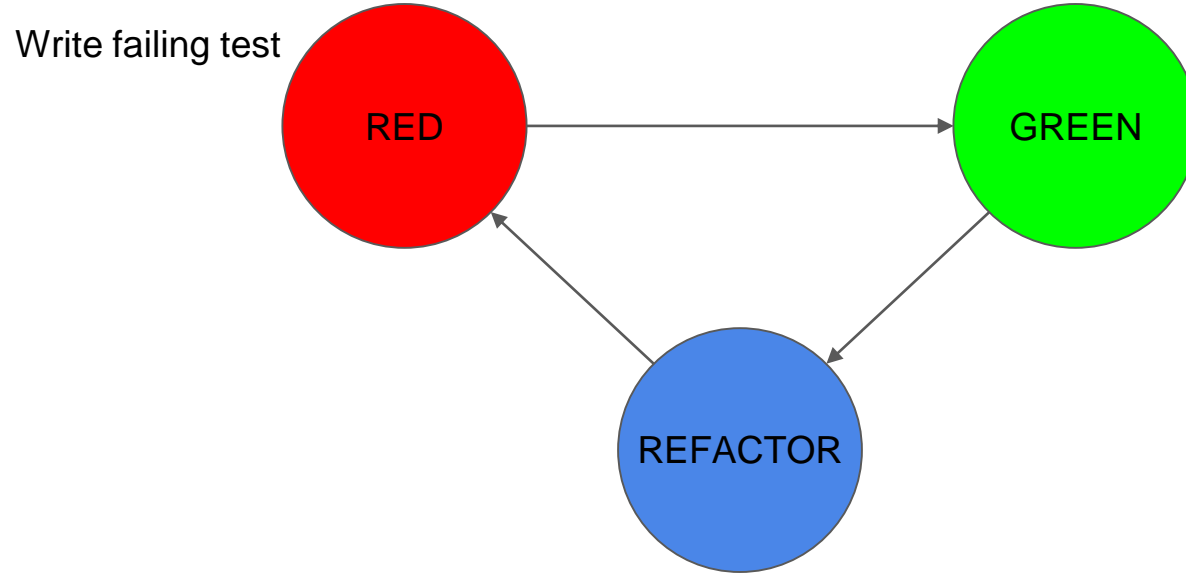
Mocking

- Complex dependencies with other modules make testing harder
- Fake return values (“Mock”) to test behavior under certain conditions
- Tests with mocking can be baseline for integration tests

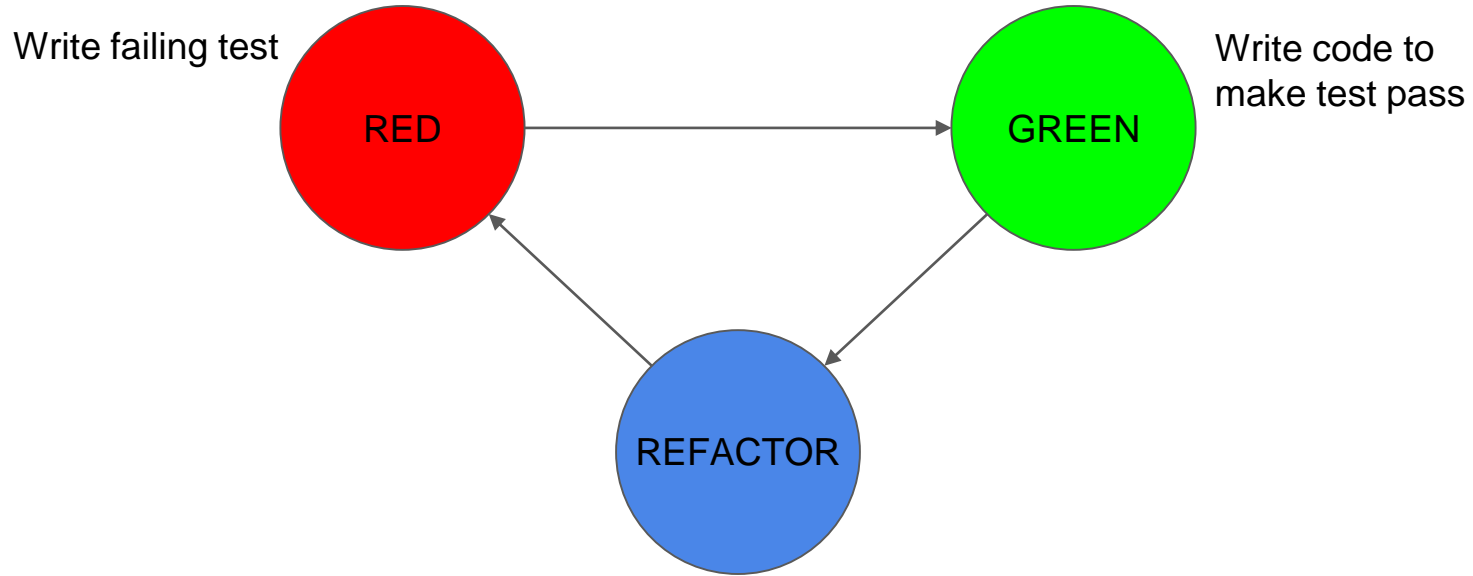
Test-Driven Development (TDD)



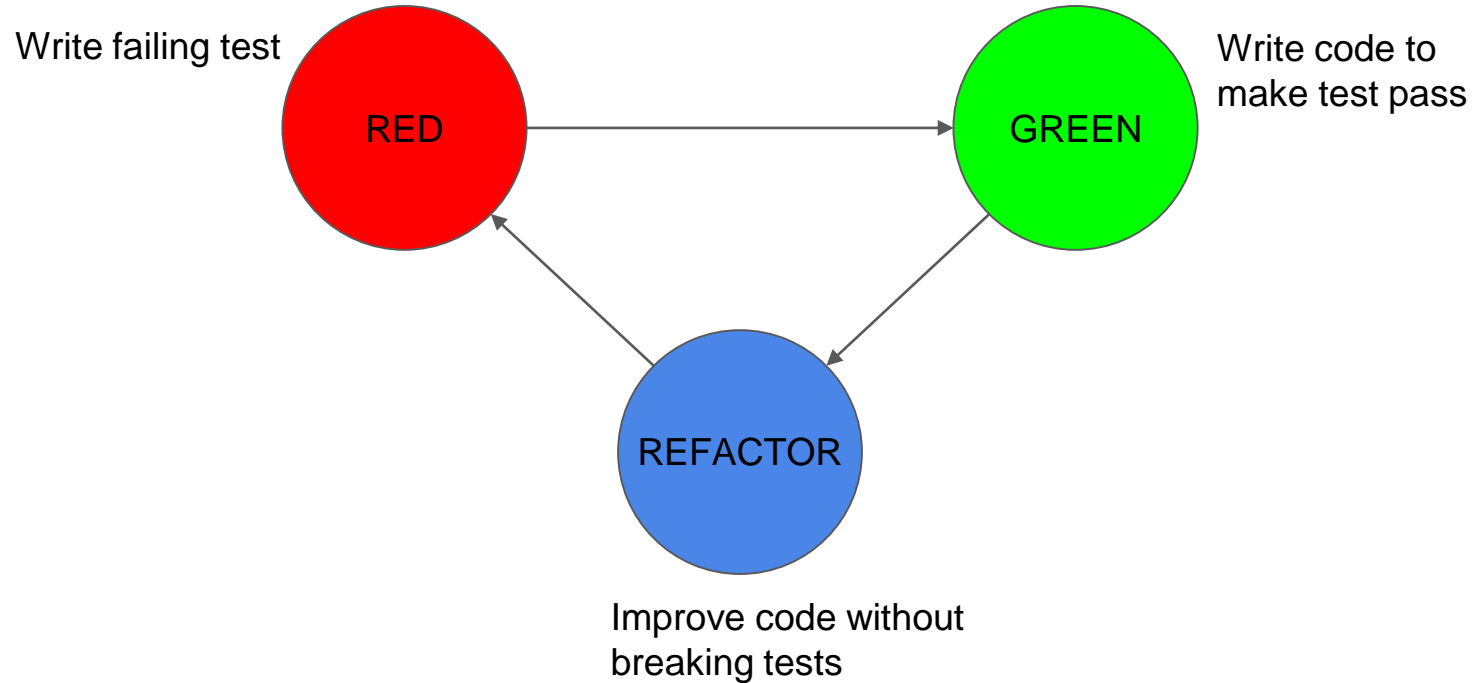
Test-Driven Development (TDD)



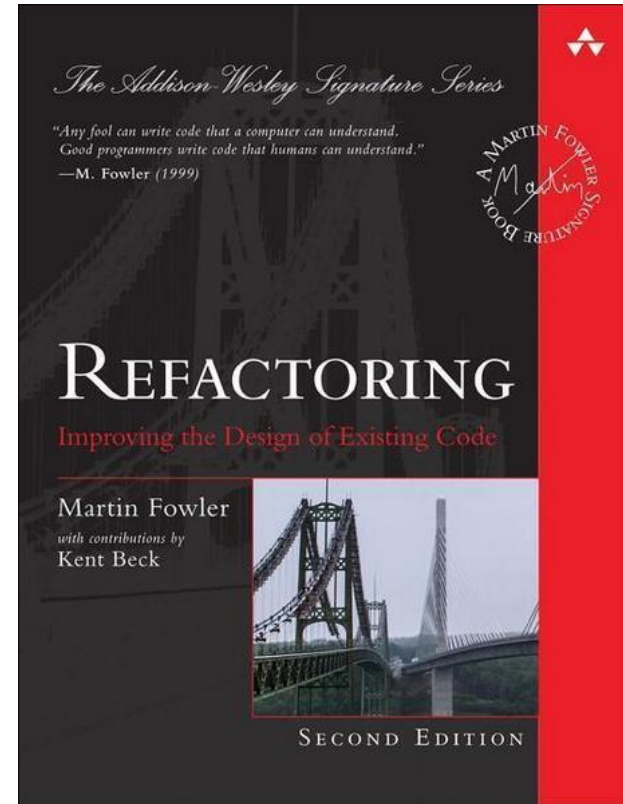
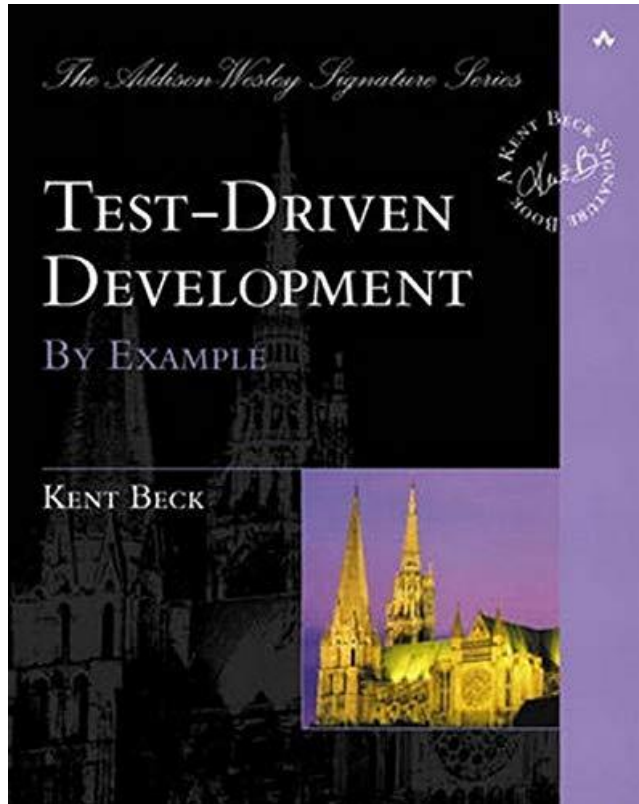
Test-Driven Development (TDD)



Test-Driven Development (TDD)



Recommendations



Questions & Feedback