

Test-driven Development on iOS

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Agenda

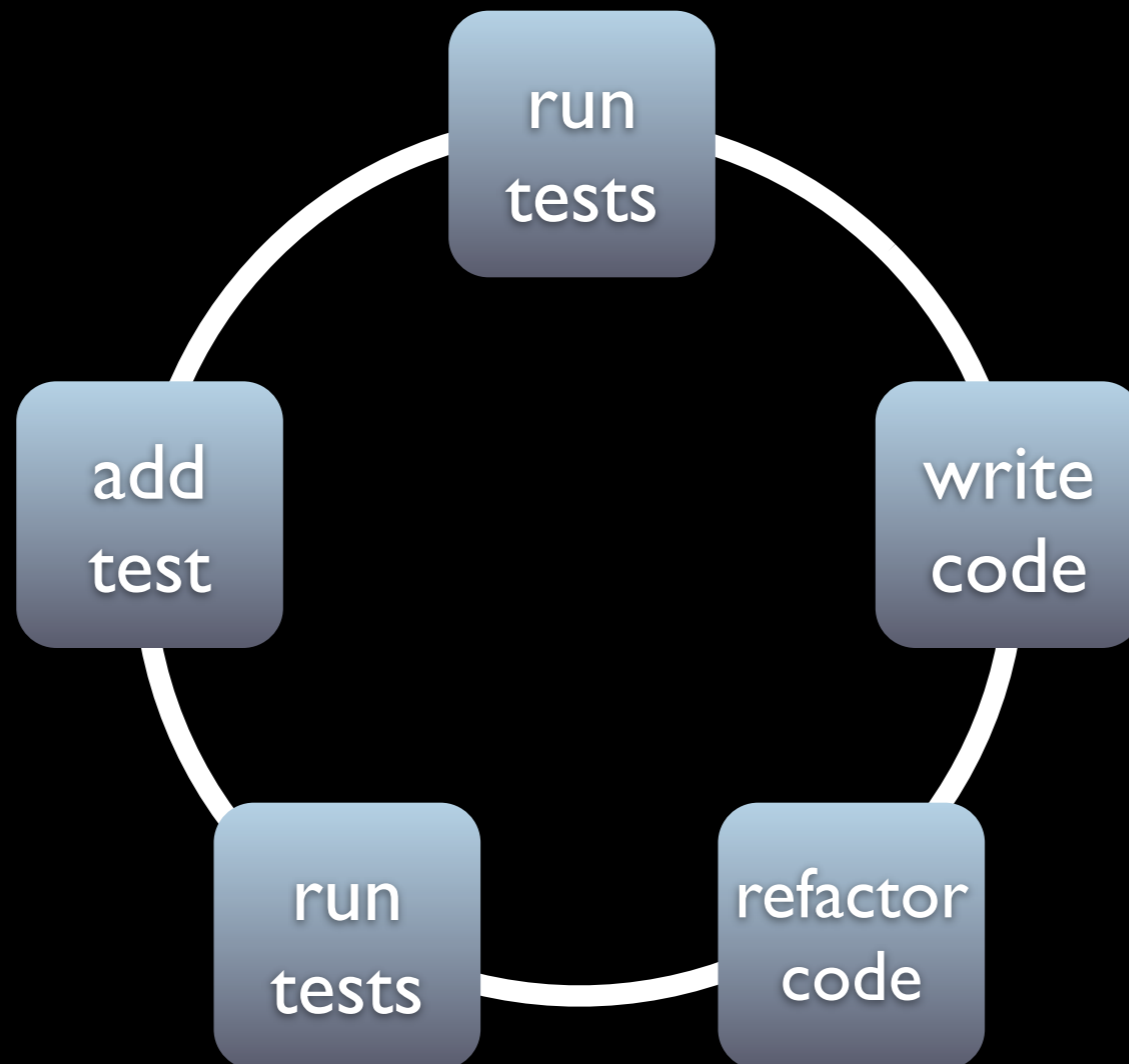
- What we're going to learn...
 - The very basic to the TDD for iOS
 - Gate to the OSXDev Codingdojo
 - \leq 30min

Agenda

- Test-driven Development
 - Overview
- TDD for iOS
 - OSXDev Client
 - Unit Testing Framework

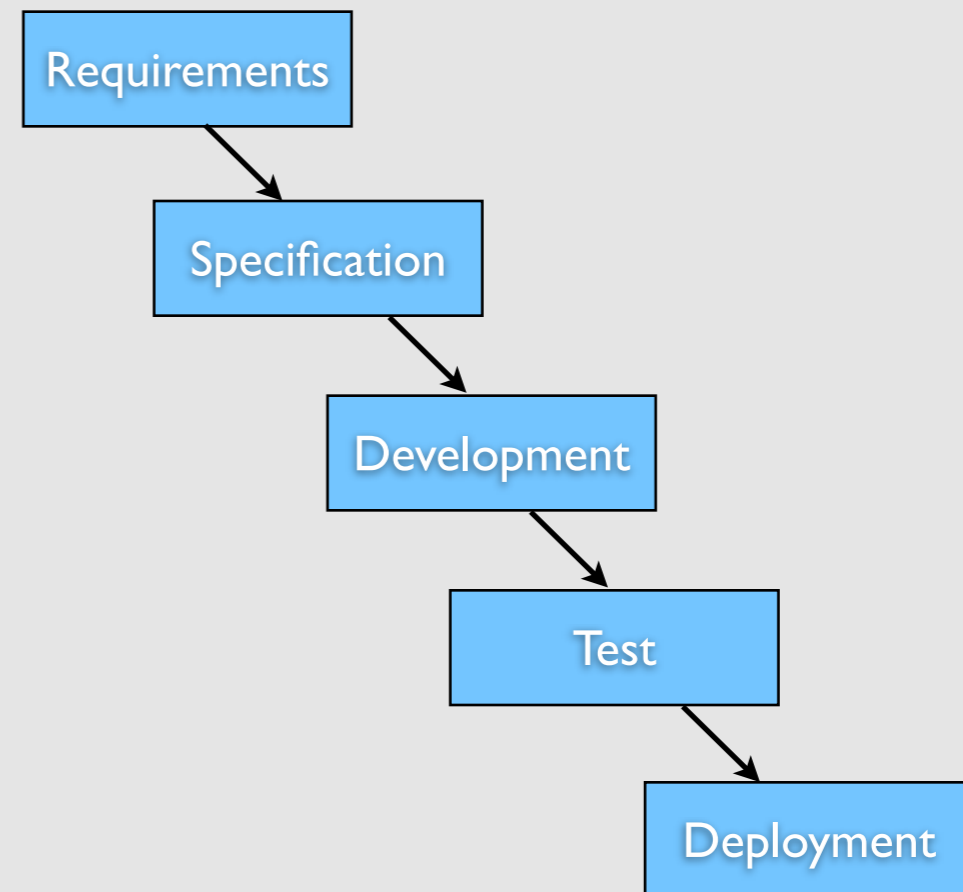
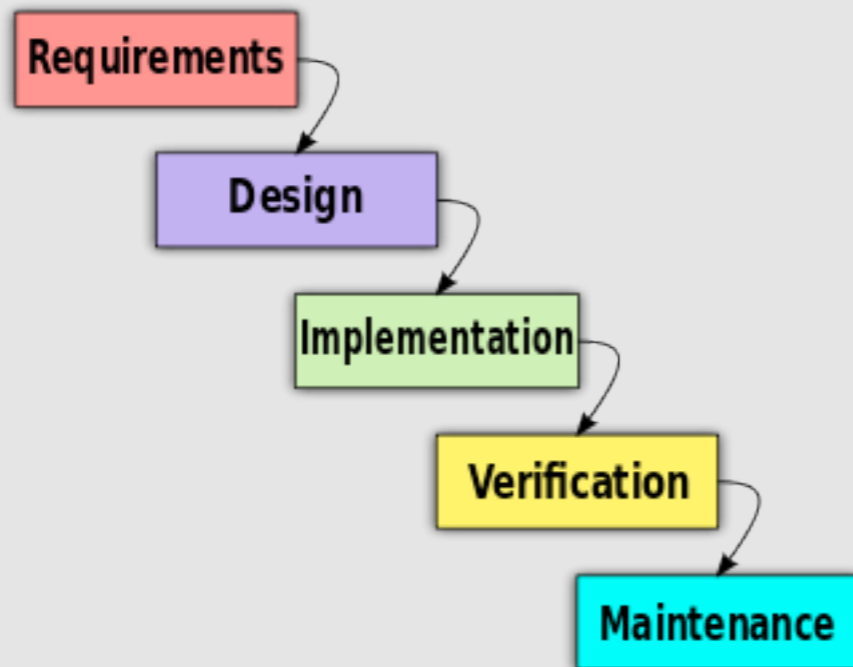
Test-driven Development

- What is it?
 - Software Development Process
 - repetitive short development cycle



Test-driven Development

- Software Development Process
 - Waterfall



Test-driven Development

- Software Development Process
 - Agile
 - based on iterative and incremental development
 - XP
 - TDD
 - FDD

Test-driven Development

- Benefits
 - Lower cost of fixing bugs

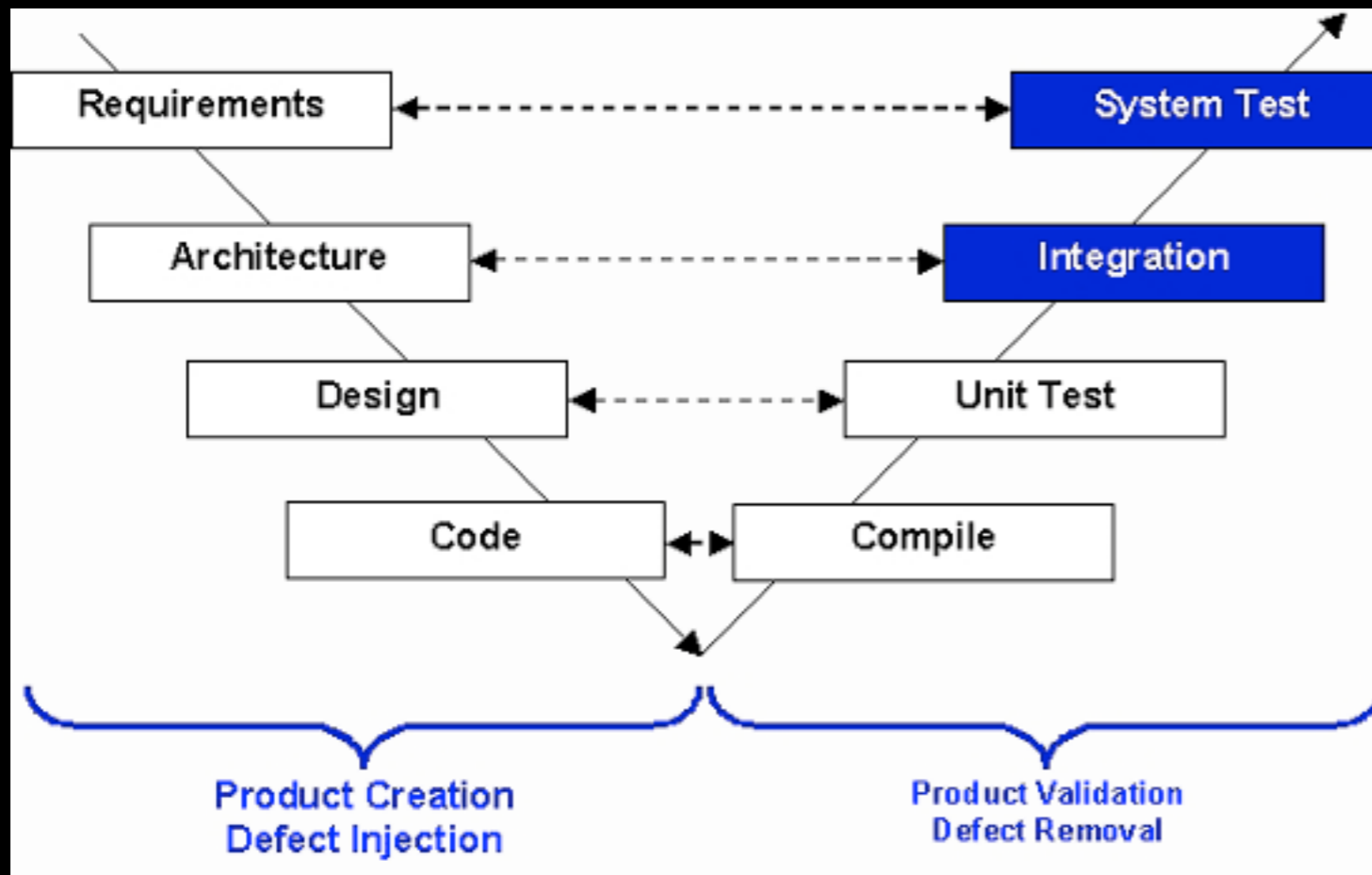
	Time Detected				
Time Introduced	Requirements	Architecture	Construction	System Test	Post-Release
Requirements	1	3	5-10	10	10-100
Architecture	-	1	10	15	25-100
Construction	-	-	1	10	10-25

Static code analysis

The diagram illustrates the impact of static code analysis. A box labeled 'Static code analysis' has three arrows pointing to the 'Construction' row of the table. One arrow points to the '1' in the 'Construction' column, another points to the '10' in the 'System Test' column, and a third points to the '10-25' in the 'Post-Release' column. The 'Construction' row is highlighted with a blue border, and the 'System Test' and 'Post-Release' columns are highlighted with a red border.

Test-driven Development

- Benefits
 - Lower cost of fixing bugs



Test-driven Development

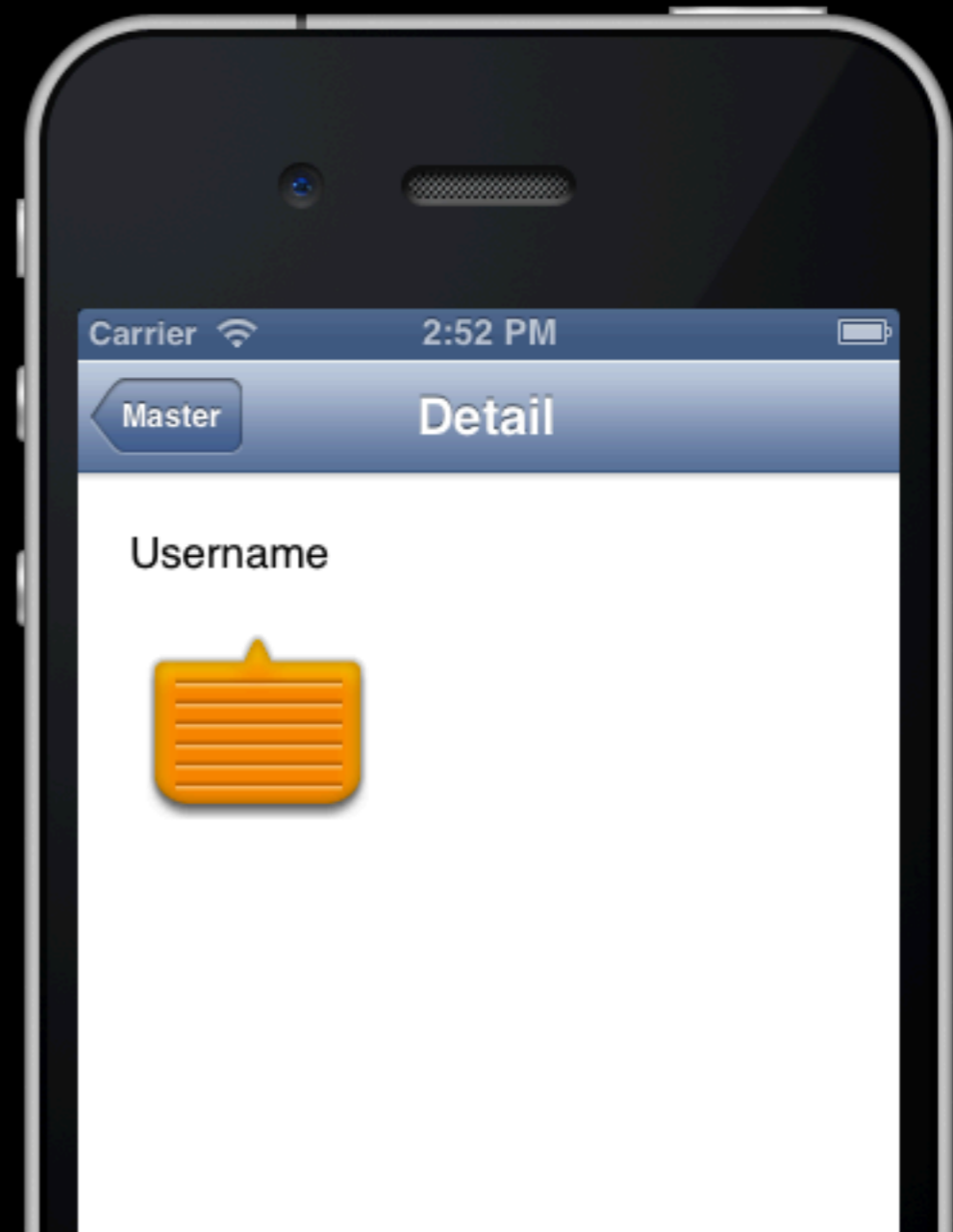
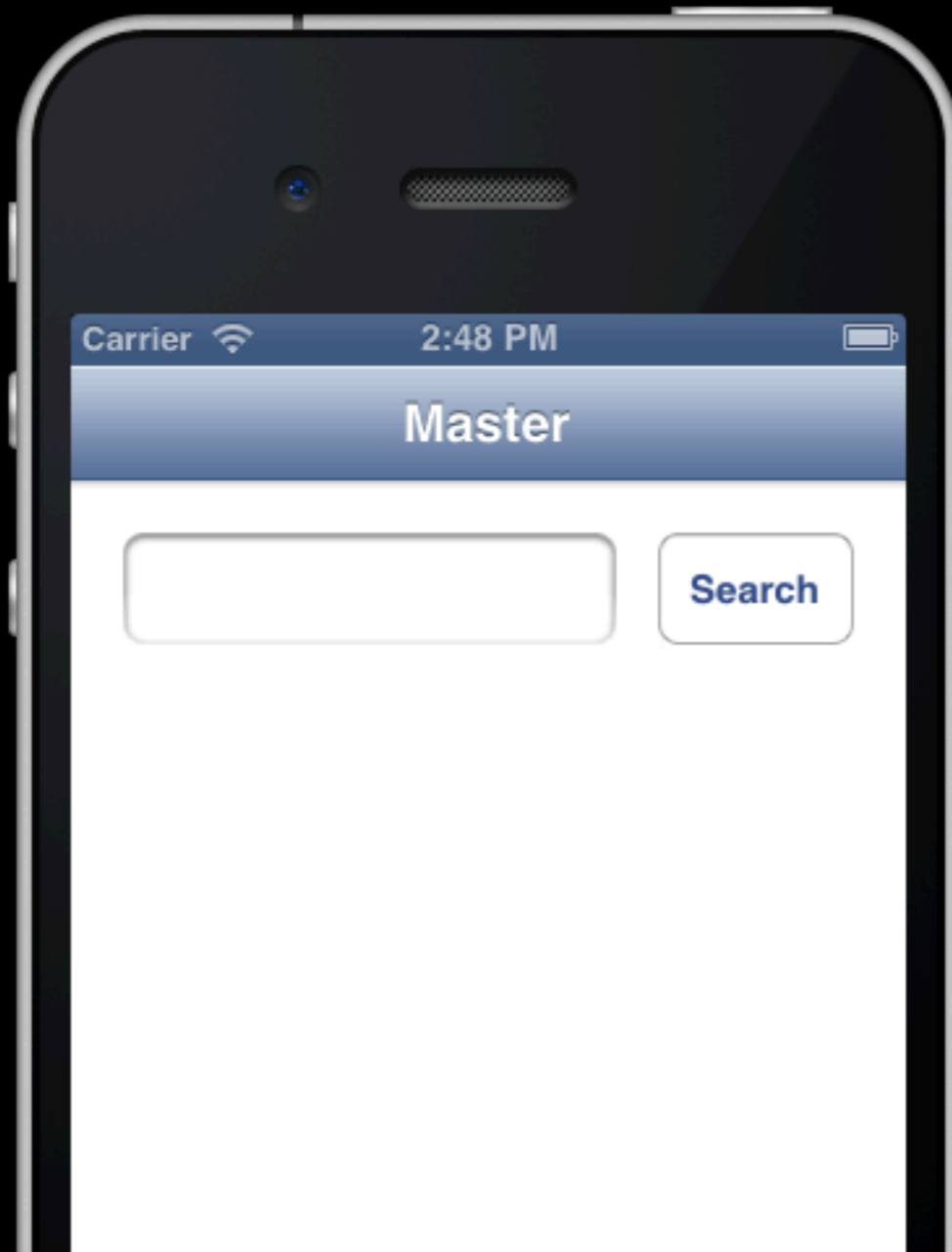
- Techniques for TDD
 - Test First
 - Red, Green, Refactor
 - Designing a Test-Driven App
 - Refactoring
 - YAGNI(You Aren't Gonna Need It)
 - Testing Before, During, and After Coding

TDD for iOS

- OSXDev Client
 - Requirements
 - Account: Login/Logout/Signup
 - Thread/Post: Read/Write post
 - Users: Lookup/Message
- OSXDev Rest API
 - Supported Actions
 - authenticate
 - getactions, getuser, getavatar, getusers, getgroup,

TDD for iOS

- OSXDev Client
 - Simple User Search App



TDD for iOS

- Testing Preview
 - Microfeatures
 - Models
 - View
 - Controllers

TDD for iOS

- OCUnit
 - Developed by Sen:Te
 - Xcode Integration
 - Test Fixture
 - setUp
 - tearDown
 - SenTestingKit
 - SenTestCase
 - method prefix “test”
 - Editing Schemes
 - Automatic Test after Build

TDD for iOS

- OCUnit
 - STAssert... Macros

```
STFail
STAssertNil
STAssertNotNil
STAssertTrue
STAssertFalse
STAssertEquals
STAssertEqualObjects
STAssertEqualsWithAccuracy
STAssertThrows
STAssertThrowsSpecific
STAssertThrowsSpecificNamed
STAssertNoThrow
STAssertNoThrowSpecific
STAssertNoThrowSpecificNamed
STAssertTrueNoThrow
STAssertFalseNoThrow
```

TDD for iOS

- Alternative Unit Testing Tools
 - Google Toolkit for Mac (GTM)s
 - GHUnit
 - CATCH
 - OCMock
 - <http://ocmock.org>
 - <http://alexvoller.com/posts/2010/06/28/making-fun-of-things-with-ocmock>

TDD for iOS

- Getting Started

TDD for iOS

- Model testing sample
 - ODCUser
 - ODCForumGroup
 - ODCForum
 - ODCThread

OSXDev Coding Dojo

- Coming soon...
- visit <http://osxdev.org>