

# Test-Driven Development and Integration Tests

## Fundamentals

- Test Naming
- Red-Green-Refactor
- Arrange-Act-Assert
- Path Based Testing
- Theory and Inline Data
- Testing Strings
- Testing Void Methods
- Testing Exceptions
- Data Driven Testing
- Testing Collections
- Boundary Testing
- Testing Events
- Async Testing
- Default and Null Testing
- Complex Object
- Pure Functions vs Side Effects
- What Not To Test

## Test Doubles

- Dummy
- Stub
- Fake
- Mock

## Design Patterns

- Dependency Injection
- Strategy
- Facade
- Proxy
- Adapter
- Decorator
- Chain of Responsibility
- Composite
- Command

## Integration Tests

- Component Integration
- Data Store Integration
- Protocol Integration
- Messaging Integration
- External Service Integration