JUnit 5 User Guide

Table of Contents

1. Overview	5
1.1. What is JUnit 5?	5
1.2. Supported Java Versions	5
1.3. Getting Help	6
1.4. Getting Started	6
1.4.1. Downloading JUnit Artifacts	6
1.4.2. JUnit 5 Features	6
1.4.3. Example Projects	6
2. Writing Tests	6
2.1. Annotations	
2.1.1. Meta-Annotations and Composed Annotations	
2.2. Test Classes and Methods	10
2.3. Display Names	
2.3.1. Display Name Generators	
2.3.2. Setting the Default Display Name Generator	14
2.4. Assertions	15
2.4.1. Kotlin Assertion Support	18
2.4.2. Third-party Assertion Libraries	20
2.5. Assumptions.	21
2.6. Disabling Tests	
2.7. Conditional Test Execution	23
2.7.1. Operating System Conditions	23
2.7.2. Java Runtime Environment Conditions	24
2.7.3. System Property Conditions	25
2.7.4. Environment Variable Conditions	26
2.7.5. Custom Conditions	26
2.8. Tagging and Filtering	27
2.8.1. Syntax Rules for Tags	27
2.9. Test Execution Order	28
2.9.1. Setting the Default Method Orderer	29
2.10. Test Instance Lifecycle	
2.10.1. Changing the Default Test Instance Lifecycle	
2.11. Nested Tests	
2.12. Dependency Injection for Constructors and Methods	34
2.13. Test Interfaces and Default Methods	37
2.14. Repeated Tests	42

2.14.1. Repeated Test Examples	42
2.15. Parameterized Tests.	45
2.15.1. Required Setup	46
2.15.2. Consuming Arguments	46
2.15.3. Sources of Arguments	46
@ValueSource	46
Null and Empty Sources	47
@EnumSource	48
@MethodSource	49
@CsvSource	51
@CsvFileSource	52
@ArgumentsSource	53
2.15.4. Argument Conversion	54
Widening Conversion	54
Implicit Conversion	54
Explicit Conversion.	57
2.15.5. Argument Aggregation	59
Custom Aggregators	59
2.15.6. Customizing Display Names	61
2.15.7. Lifecycle and Interoperability	62
2.16. Test Templates.	62
2.17. Dynamic Tests	63
2.17.1. Dynamic Test Examples	63
2.17.2. URI Test Sources for Dynamic Tests	67
2.18. Timeouts	68
2.18.1. Using @Timeout for Polling Tests	70
2.18.2. Disable @Timeout Globally	70
2.19. Parallel Execution	71
2.19.1. Configuration	74
2.19.2. Synchronization	74
2.20. Built-in Extensions	76
2.20.1. The TempDirectory Extension	76
3. Migrating from JUnit 4	78
3.1. Running JUnit 4 Tests on the JUnit Platform	78
3.1.1. Categories Support	79
3.2. Migration Tips	79
3.3. Limited JUnit 4 Rule Support	79
3.4. JUnit 4 @Ignore Support	80
4. Running Tests	81
4.1. IDE Support	81
4.1.1. IntelliJ IDEA	81