Testing Spring

Beginner to Guru

Differences Between JUnit 4 and JUnit 5

Test Annotations

JUnit 4	JUnit 5
@Before	@BeforeEach
@After	@AfterEach
@BeforeClass	@BeforeAll
@AfterClass	@AfterAll
@Ignored	@Disabled
@Category	@Tag

Test Annotations

JUnit 4	JUnit 5
@RunWith(SpringJUnit4ClassRunner.class)	@ExtendWith(SpringExtension.class)
@Test(expected = Foo.class)	Assertions.assertThrows(FooException.class)
@Test(timeout = 1)	Assertions.assertTimeout(Duration...)

JUnit 4 Support Under JUnit 5

- JUnit 4 tests can be run via JUnit 5

- Helps provide easy migration path to JUnit 5

- Add artifact 'junit-vintage-engine' to classpath

- Enables support for JUnit 3 and JUnit 4 tests

  - Tests are executed using JUnit 5 engine

- Some features not fully supported (details coming)

- Java 1.8 or Higher is Required

JUnit 4 Category Support

- JUnit 4 Categories become 'tags' under JUnit 5

- Category is exposed as fully qualified class name.

- Example: @Category(Foo.class)

  - JUnit 5 Tag = "com.example.Foo"

Migration Tips

- Annotations reside in the org.junit.jupiter.api package.

- Assertions reside in org.junit.jupiter.api.Assertions.

- Assumptions reside in org.junit.jupiter.api.Assumptions.

- @Rule and @ClassRule no longer exist; superseded by @ExtendWith

- **NOTE** - First slide shows key annotation differences

Limited Rule Support in JUnit 5 Vintage

• JUnit 5 Jupiter does no support JUnit 4 Rules natively

• Library junit-jupiter-migrationsupport provides limited Rule support:

    • org.junit.rules.ExternalResource (including org.junit.rules.TemporaryFolder)

    • org.junit.rules.Verifier (including org.junit.rules.ErrorCollector)

    • org.junit.rules.ExpectedException

• **NOTE** - Feature is experimental, see current documentation for additional details

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