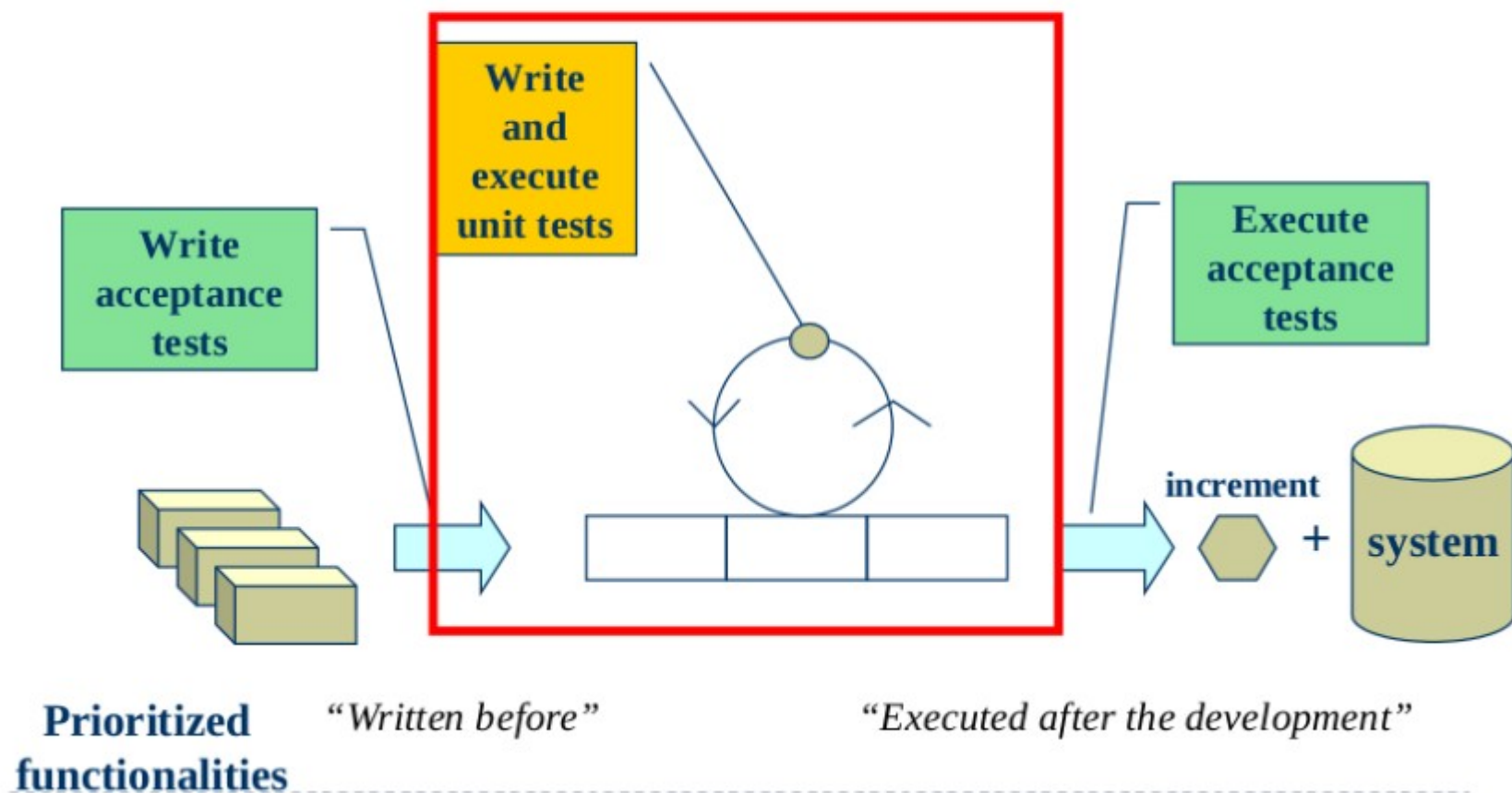
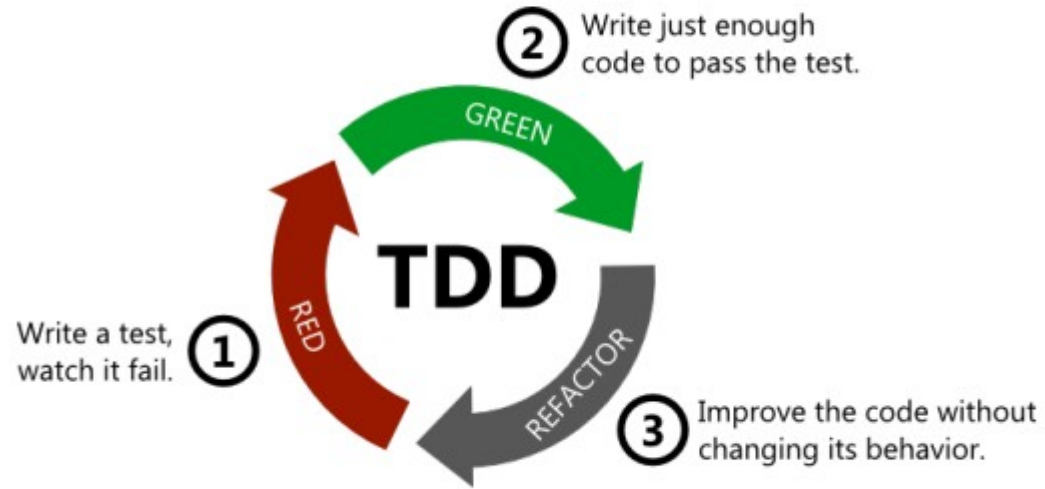


Iterative Software development



TDD



Junit4.x vs junit5.x

Architecture level difference

- Minimum JDK version for **Junit4** -> **Jdk5** but for **Junit5** -> **Jdk8**
- Earlier it was single .jar
- Now it's 3 different .jar

JUnit 5 = JUnit Platform + JUnit Jupiter + JUnit Vintage

JUnit platform

- Launch testing frameworks
- Define test engines
- Console launcher
- Junit4 based runner
- Integration with 3rd party

JUnit Jupiter

- New programming model + extension to write test and extension
- It's subproject provides test engine to run the Jupiter based tests

JUnit Vintage

- To run tests that are written in junit4 and junit3

```

public class Calculator {
    public int add( int a , int b) {
        return a+b;
    }
    public int divide( int a , int b) {
        return a/b;
    }
}

```

```

@TestMethodOrder(OrderAnnotation.class)

```

```

class CalculatorTest {

```

```

    private Calculator calculator;

```

```

    @BeforeEach

```

```

    void setUp() throws Exception {
        calculator=new Calculator();
    }

```

```

    @Order(value = 1)

```

```

    @RepeatedTest(value = 3)

```

```

    void repeatDemo() {
        System.out.println("test run 3 times");
    }

```

```

    @Disabled

```

```

    @Order(value = 2)

```

```

    @Test

```

```

    void test() {
        assertThrows(ArithmeticException.class, ()-> calculator.divide(4, 0),"divide by zero");
    }

```

```

    @Order(value = 2)

```

```

    @Test

```

```

    void multipleTest().{
        assertAll(
            ()-> assertEquals(4, calculator.add(2, 2)),
            ()-> assertEquals(8, calculator.add(2, 6))
        );
    }

```

```

    @AfterEach

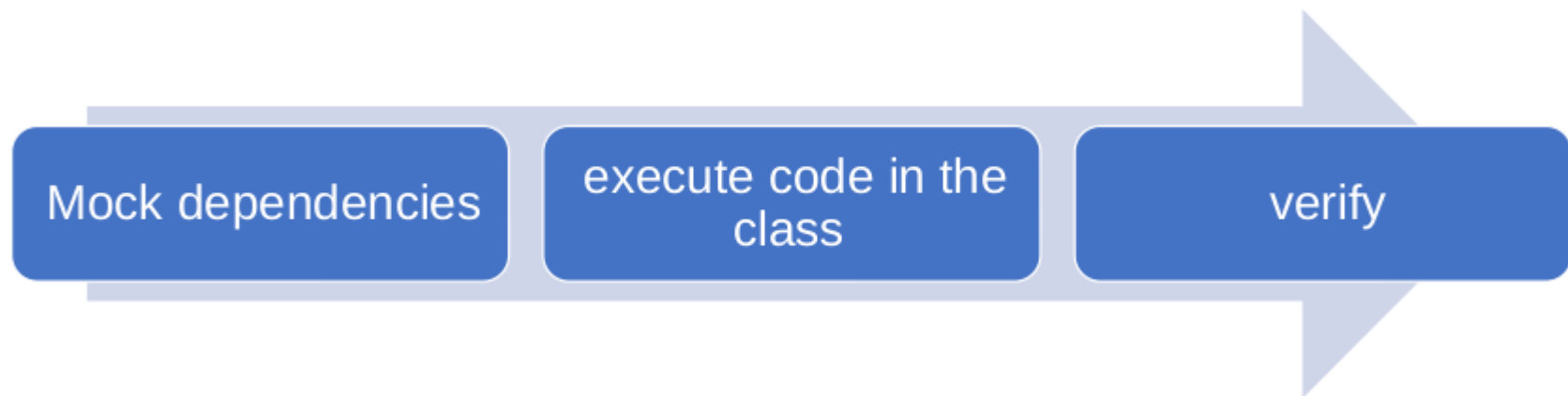
```

```

    void tearDown() throws Exception {
        calculator=null;
    }
}

```

Mockito is a mocking framework for Java. Mockito allows convenient creation of substitutes of real objects for testing purposes.



Spring boot testing

