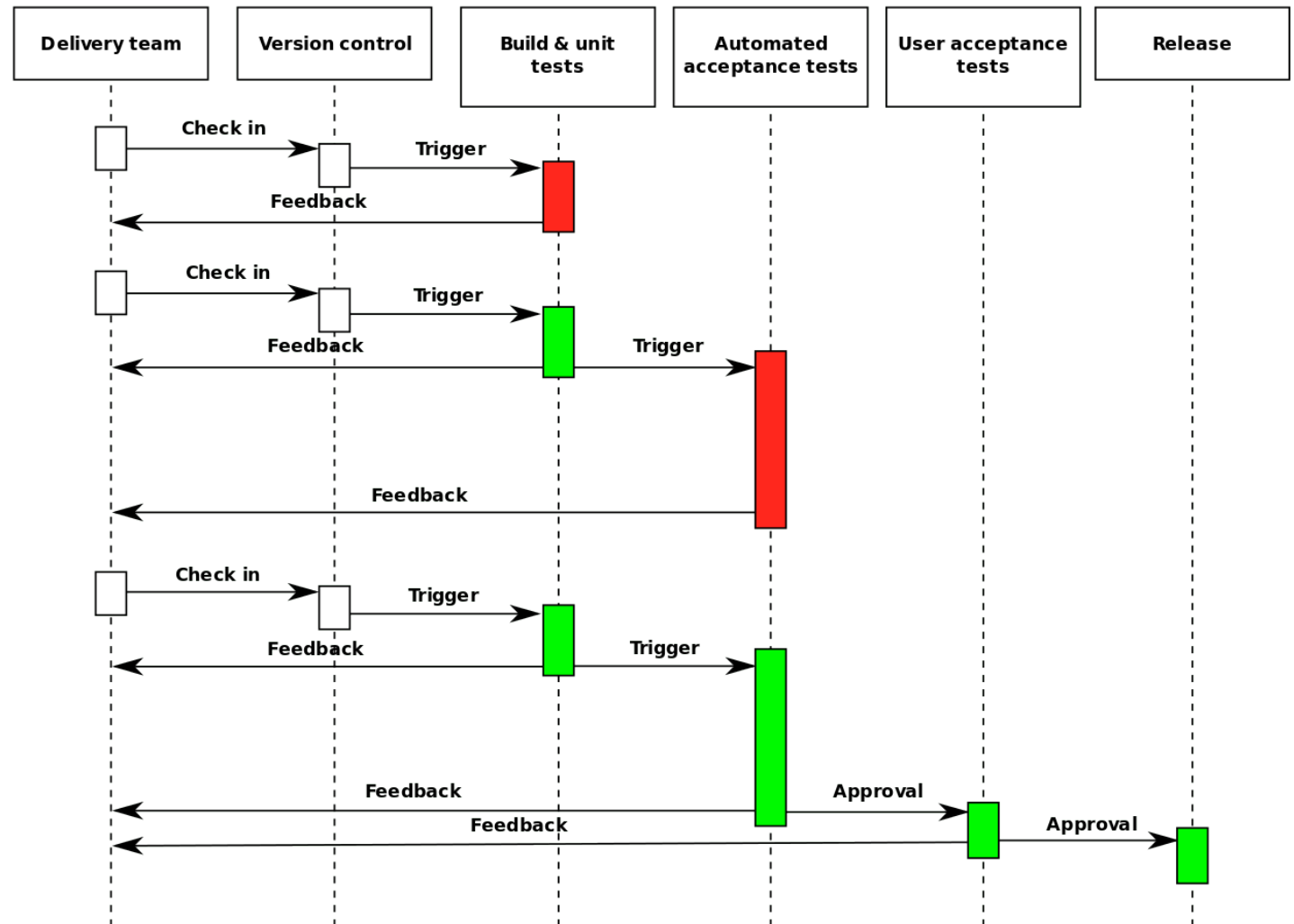


14: Intro to JUnit

What is JUnit

- framework for writing and running test codes
- unit test



How to use JUnit to test code

1. create a regular java class
2. import JUnit classes and packages as needed
3. write tests as method of test class
4. compile and run test class with JUnit test runner

Test Class Example

```
import static org.junit.jupiter.api.Assertions.*;

import org.junit.jupiter.api.AfterAll;
import org.junit.jupiter.api.AfterEach;
import org.junit.jupiter.api.BeforeAll;
import org.junit.jupiter.api.BeforeEach;
import org.junit.jupiter.api.Test;

public class TestClass {

    @Test
    void test123_try_something_check_results() {
        // if (condition_expression)
        //     fail("descriptive failure message");

        // assertEquals( expr1, expr2 );
    }
}
```

annotations

JUnit on the Command Line

What you need:

1. A class to test (`DataSet.java`)
2. The JUnit5 library (jar file at `http://pages.cs.wisc.edu/~cs400/junit5.jar`)
3. A test class (class with test methods) (`TestClass.java`)

Steps to run tests in test class:

1. Compile class to test and test class

```
javac DataSet.java
javac -cp .:junit5.jar TestClass.java
```

2. Run Test

```
java -jar junit5.jar --class-path . --scan-classpath
```

