Using Frameworks for Validation

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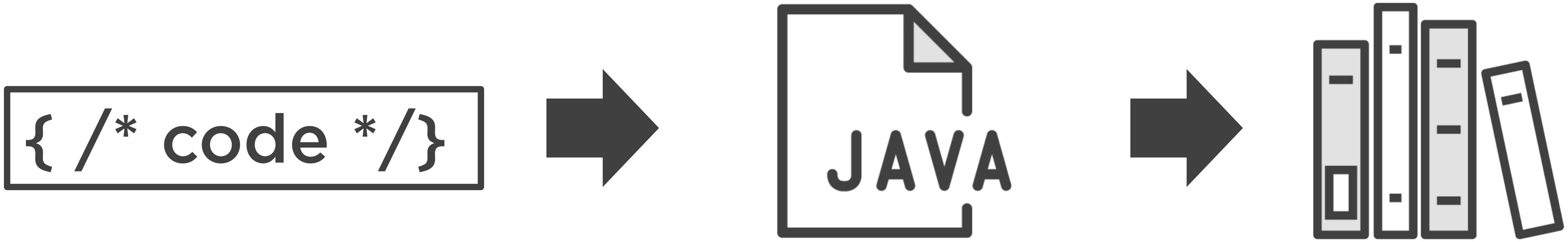
TEST AUTOMATION ENGINEER



{ /* code */}

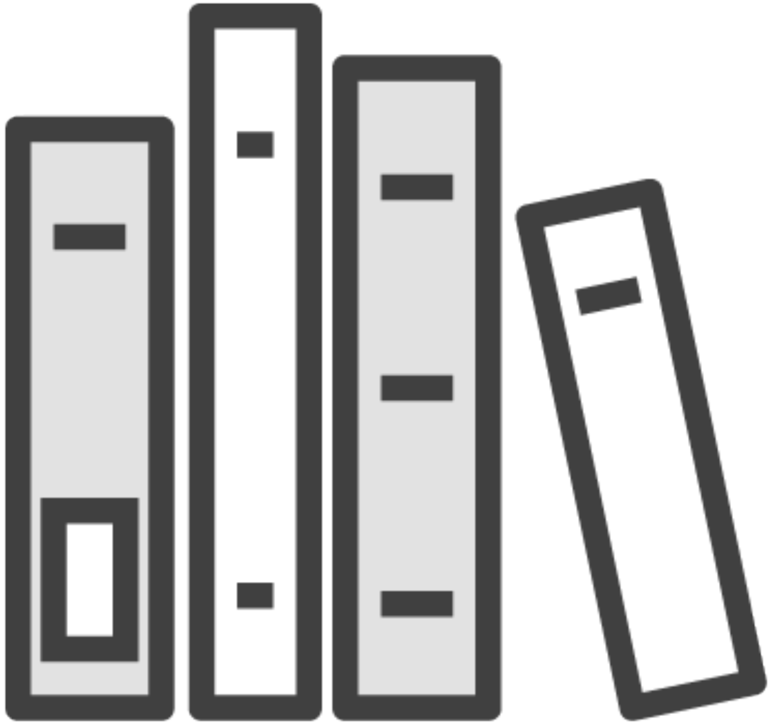
JAVA

Don’t reinvent the wheel

Native Java

Google Guava & Apache Commons

Hamcrest & AssertJ



Native Java API

- Objects

Utility Libraries

- Google Guava
- Apache Commons

Test Libraries

- Hamcrest
- AssertJ

Frameworks

Objects

equals()

deepEquals()

requireNonNullElseGet()

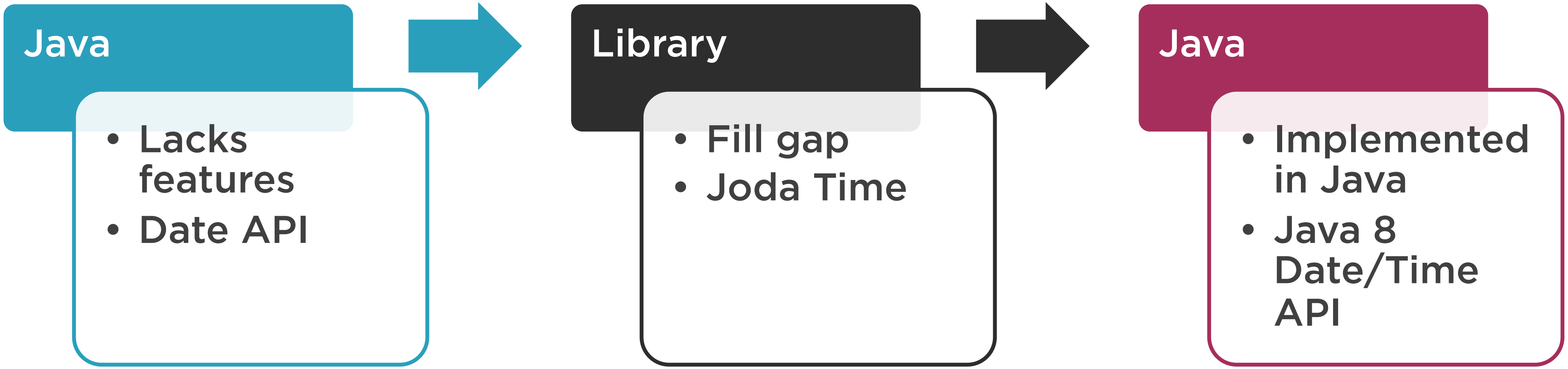
checkIndex()

// etc.

```
class Preconditions { }
```

Native Java vs. Guava

Java	Guava
Objects	**Preconditions**
- requireNotNull()	- checkNotNull()
	- checkArgument()
	- checkState()



Java

- Lacks features
- Date API

Library

- Fill gap
- Joda Time

Java

- Implemented in Java
- Java 8 Date/Time API

Try not to mix Objects and Preconditions APIs

Apache Commons vs. Google Guava

Commons	Guava
Validate	**Preconditions**
- notNull()	- checkNotNull()
- isTrue()	- checkArgument()
- validState()	- checkState()

Validate

notEmpty()

noNullElements()

exclusiveBetween()

inclusiveBetween()

// etc.

Use whatever your project already has

JUnit or TestNG

Readability in Tests

DRY

Don’t Repeat Yourself

DAMP

Descriptive and Meaningful Phrases

WET

Write Everything Twice

Hamcrest

```
is()

anyOf()

greaterThan()

startsWith()

// etc.
```

AssertJ

containsAnyOf()

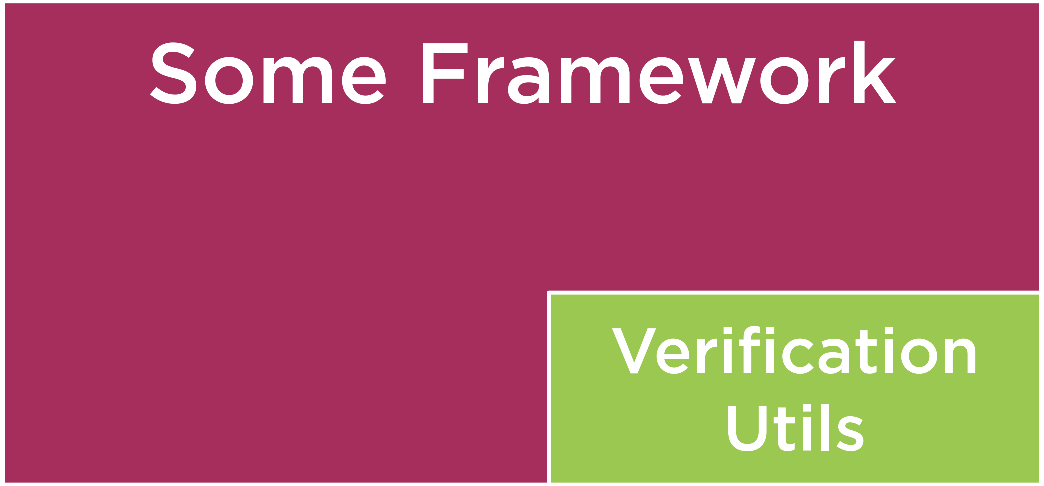
isNotSameAs()

isStrictlyBetween()

isZero()

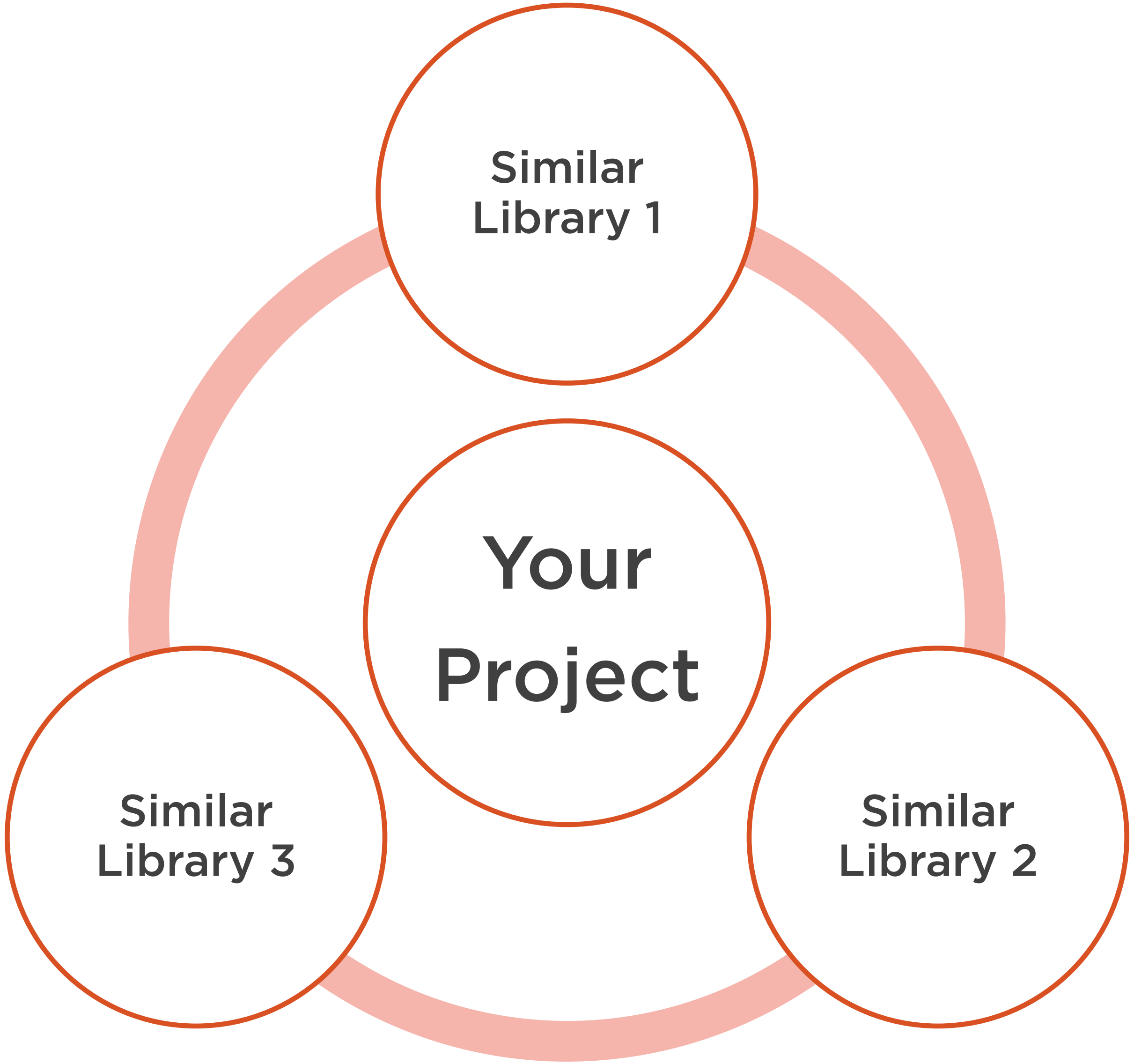
// etc.

Hamcrest and AssertJ are competing, not complementary libraries



Some Framework

Verification Utils


Similar Library 1
Your Project
Similar Library 3
Similar Library 2

Hibernate

Validator

WireMock

AssertJ

Guava

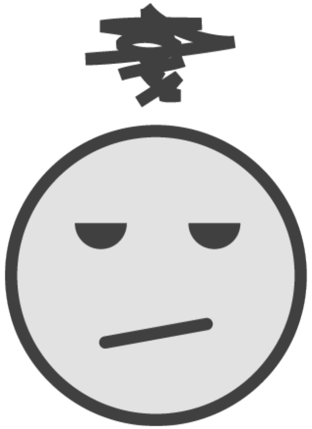
Hamcrest

Apache

Mockito

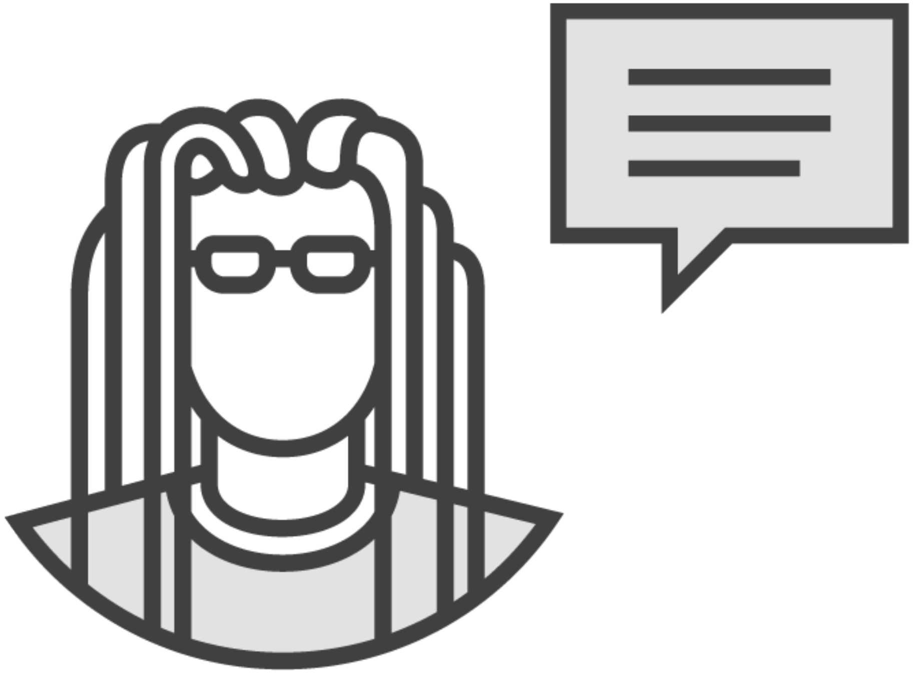
TestNG

JUnit



What, there are 14 competing standards for that thing?

We should develop one universal standard!



Later

There are now 15 competing standards

1) Check if you already have something and consider using that

2) Research, discuss and implement

3) Use consistently and prevent further dependency creep

Summary

Native Java API Objects

Guava & Apache

Hamcrest & AssertJ

Framework validators