

```
import java.util.*;
public class Sample {
    public static void main(String[] args) {
        // Create an array of integers
        List<Integer> strings = new LinkedList<>();
        strings.add(1);
        strings.add(2);
        strings.add(3);
        for (Integer e : strings) {
            System.out.println(e + " ");
        }
    }
}

// Example
import java.lang.reflect.*;
import java.lang.reflect.*;

class TestClass {
    private int value;
    public int getValue() { return value; }
    public void setValue(int value) { this.value = value; }
}

public class Main {
    public static void main(String[] args) {
        TestClass testClass = new TestClass();

        for (Field field : testClass.getClass().getDeclaredFields()) {
            System.out.println("Name: " + field.getName() + ", type: " + field.getType());
        }

        for (Method method : testClass.getClass().getDeclaredMethods()) {
            System.out.println("Name: " + method.getName() + ", return type: " + method.getReturnType());
        }
    }
}

// Example
@Retention(RetentionPolicy.RUNTIME)
@Target(ElementType.FIELD)
public @interface Annotation {
    public boolean value() default false;
}

@Annotation(value=true)
public class TestClass {
}

public class Main {
    public static void main(String[] args) {
        TestClass testClass = new TestClass();

        Annotation annotation = testClass.getClass().getAnnotation(Annotation.class);
        if (annotation != null) {
            System.out.println("value: " + annotation.value());
        }
    }
}
```

Wider Industry



65%

Had more tests on the UI than other layers *

*excluding unit tests

*LinkedIn survey



It's comfortable

A lot of testers are more experienced testing on the UI



Testing Tools

Specifically commercial testing tools

THE END GAME

~~6~~ 8 Concepts to
Improve your
Automated
(Checks|Tests)





There is no end
game!

Automation
supports testing





Strategy

1. TESTABILITY

2. PLANS

Testability



Our ability to test...



STRATEGY

PLANS

GOALS

TESTABILITY

CONTEXT

Plans



Execute plans, and update your strategy





Creation

3. TRIMS

4. SACRED

TRIMS

TARGETTED

Targetted to a specific risk and automated on the lowest layer the testability allows



RELIABLE

To maximise their value, checks need to avoid flakiness, we need them to be deterministic



INFORMATIVE

Passing and failing checks need to provide as much information as possible to aid exploration



MAINTAINABLE

Automated checks are subject to constant change so we need a high level of maintainability



SPEEDY

Creation, Execution and Maintenance need to be as fast as the testability allows to achieve rapid feedback loops





S.A.C.R.E.D

STATE

ACTIONS

CODIFIED ORACLE

REPORTING

EXECUTION

DETERMINISTIC





Usage

5. INFORMATIVE

6. MTTF



What do automated tests tell us?

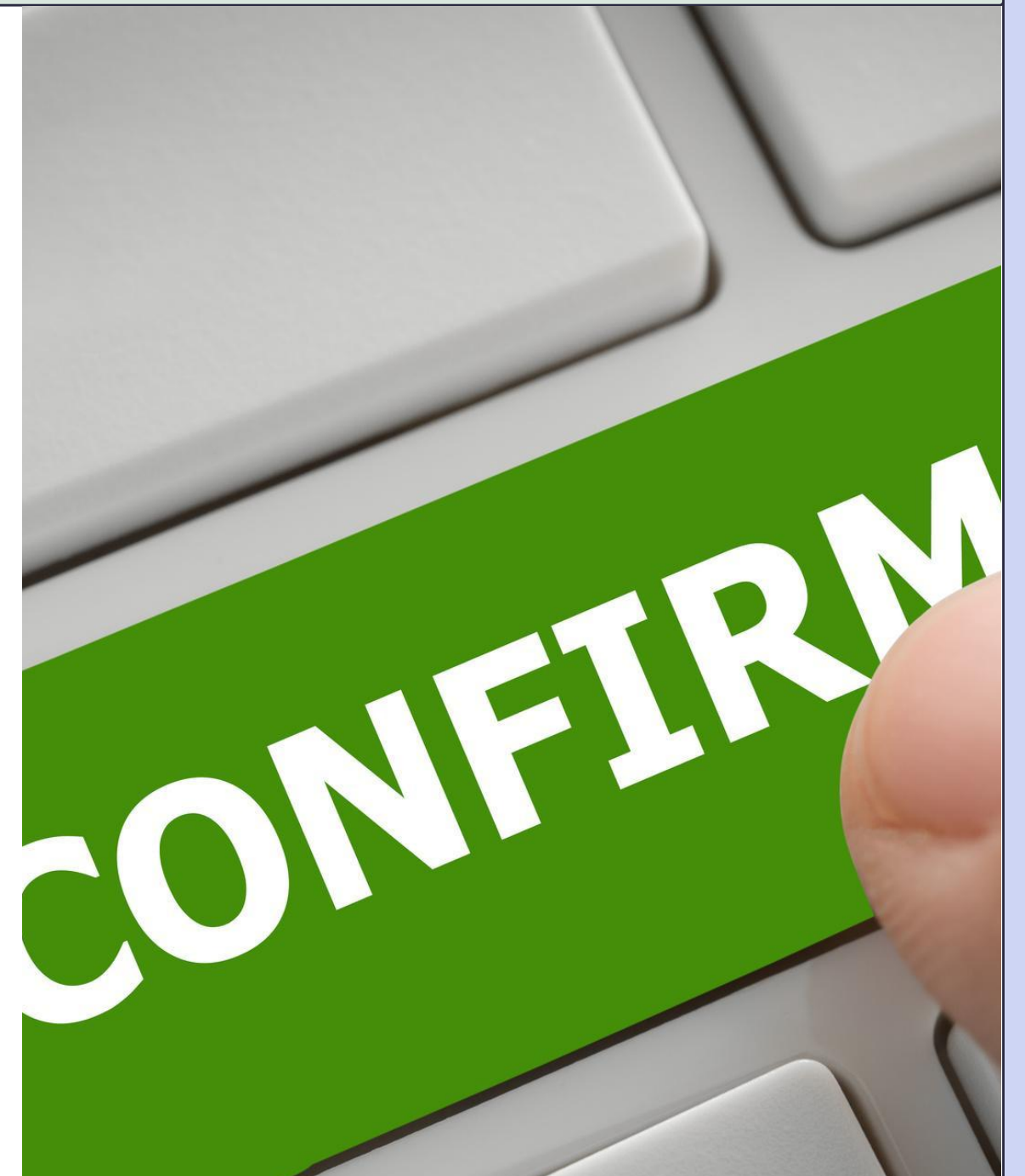
The illusion of green





Why do we have automated tests?

KNOWLEDGE CONFIRMATION





M.T.T.F

Mean time to feedback





Education

7. VALUE OF AUTOMATION

8. IDENTIFYING TESTS

Education

OTHER ROLES

Juniors, Developers, CXOs,
Management, Leads,
Automators, Testers, Product
Owners



THE EFFORT IT TAKES

We can't just automate...



SPEED VS SERENDIPITY

We gain repetition, but lose
serendipity



IT DOESN'T MEAN TESTING IS DONE

The results of the automated
checks|test set the
foundation for future testing



A FAILING TEST

A failing test is an invitation
to explore, it's a good thing.



DELETE TESTS!

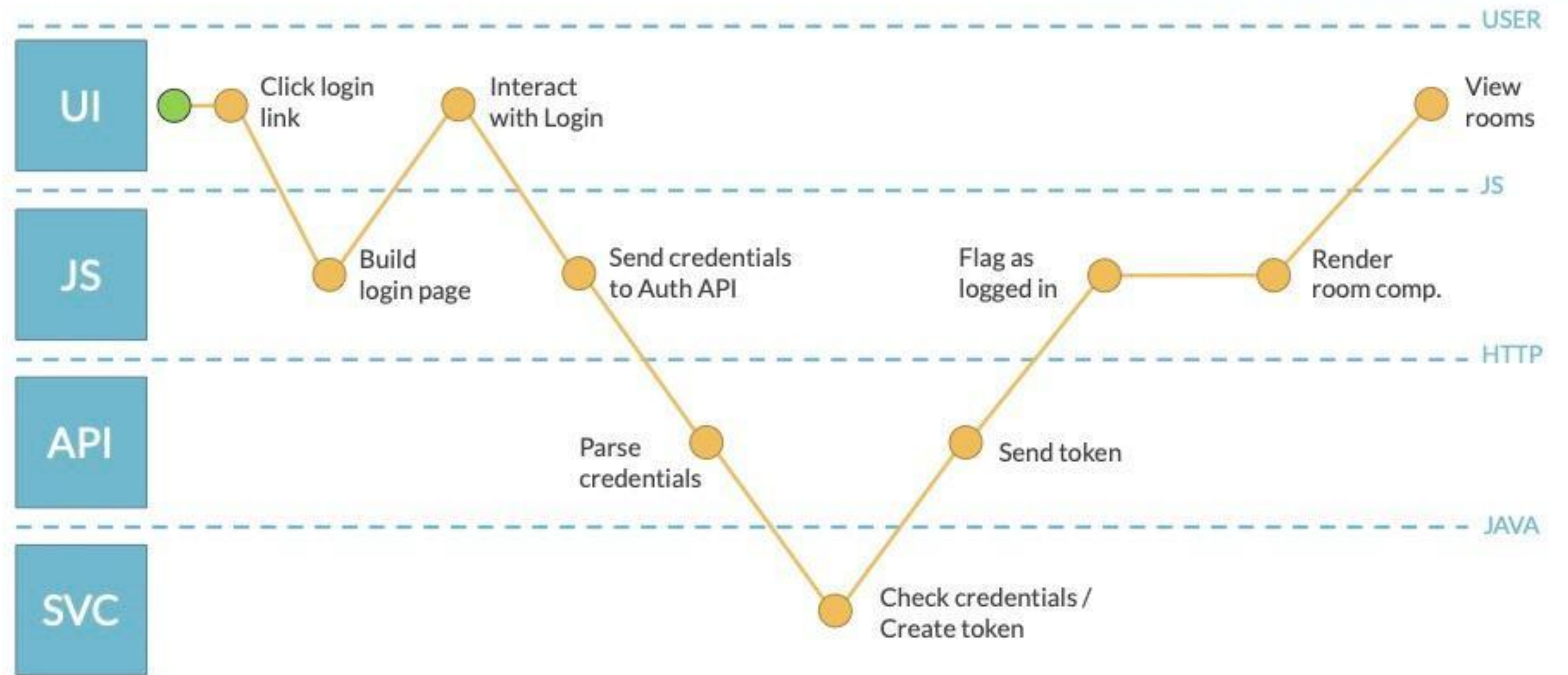
It's OK to delete test, we
should be deleting tests.



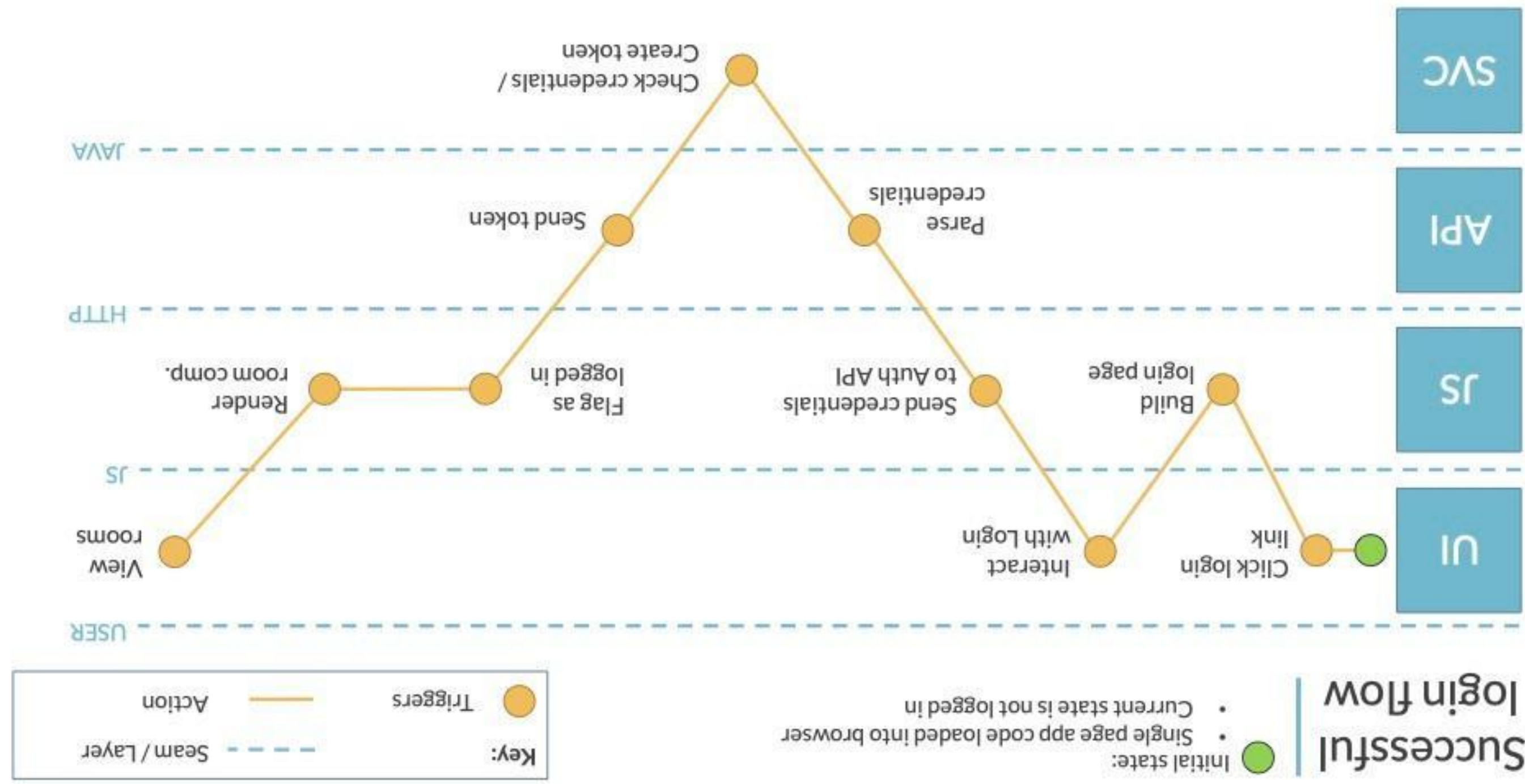
VTAS

Successful login flow

- Initial state:
 - Single page app code loaded into browser
 - Current state is not logged in



Test Pyramid



The Test Pyramid is an heuristic not a strategy



Test Pyramid

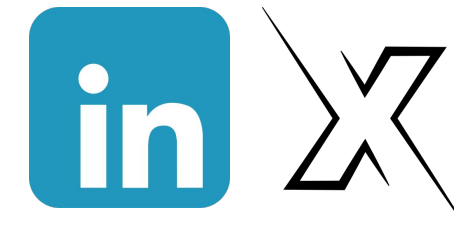


The Test Pyramid is an heuristic not a strategy





Thank you!



FriendlyTester

