# Keine Angst vor dem eigenen Quellcode

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#### ■ Who are we?

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- 2. Unit Test
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#### What kind of tests exists?

#### **Unit Tests**

- Test certain functions or units of code
- Super fast
- Easy to write

#### e2e Tests

- Runs the real application and simulate the users behavior
- Very slow
- Very fragile



## Test Strategy

- Use the smallest test type possible
- Write readable tests
- Test all the time
- Make tests fail



# **Tools & Setup**

























- Test runner
- Test code on various browsers
- Integrate with various continuous integration services like Jenkins





- Behavior-driven development framework
- Fast
- Dependency free

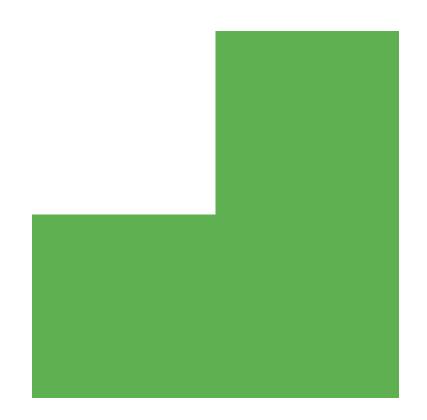




- End-to-end test framework
- Built on top of Selenium WebDriverJS
- Runs in a real browser
- Test like a user



## Insiders' tip



#### Wallaby.js

Integrated Continuous TestingTool for JavaScript



# Demo



## **Unit Tests**



### Definition

Unit Testing is a level of software testing where individual functions of a sofware are tested. The purpose is to validate that each function of the software performs as designed.



## ■ Unit Test vs. Integration Test

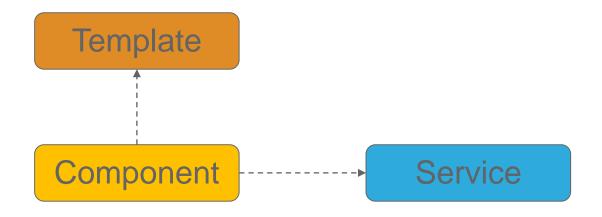
#### **Unit Test**

- Test in isolation, without external resources (e.g. templates)
- Just a simple function

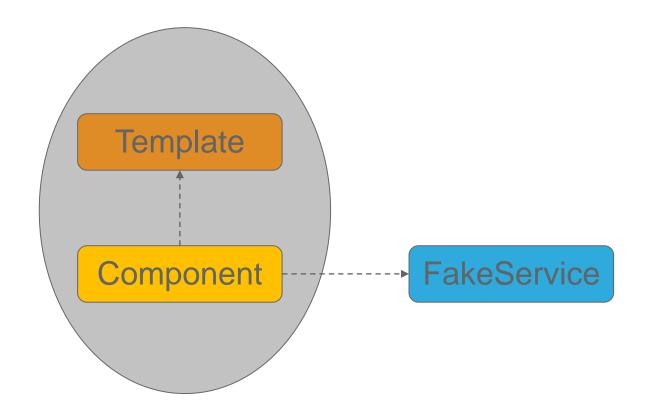
#### **Integration Test**

Test with external resources (e.g. templates)











# It helps you catch defects **before** releasing software



### Basics

```
describe('Test Suite', () => { //Test Suite
   it("A single spec", () => { // Spec or test
   });
});
```



#### Basics

```
describe('Test Suite', () => { // Test Suite
    it("A single spec", () => { // Spec or test
        // Arrange
        let component = new AppComponent();
        // Act
        component.ngOnInit();
        // Assert
        expect(component.title).toBe("hallo thomas");
    });
});
```



# Demo



## **E2e Tests**



#### e2e Tests

- Test the entire app as a whole
- Simulate a real user
- With protractor



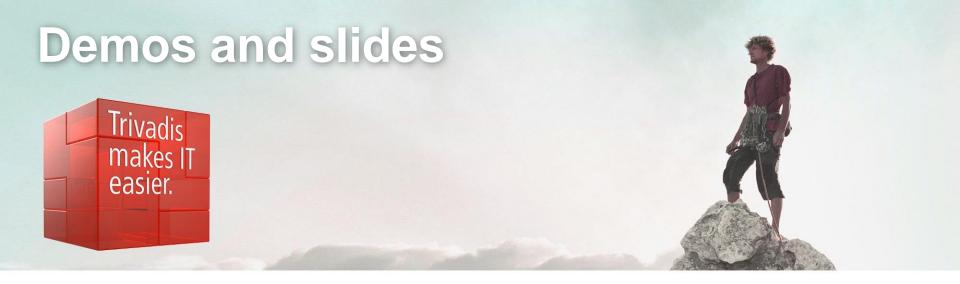
# Demo



#### How to start

- Angular CLI
- Our Demos
- Documentation on Angular Docs
- Ask us ©





github.com/gassmannT/Angular-Testing-JavaLounge



## Thank you – Besten Dank

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