

Keine Angst vor dem eigenen Quellcode

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trivadis
makes IT easier. ■ ■ ■

■ Who are we?

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■ Who are we?



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■ Content

1. Introduction

2. Unit Test

3. e2e

4. Outro

■ 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

■ Tools





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



- Behavior-driven development framework
- Fast
- Dependency free



Protractor

end to end testing for AngularJS

- 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 Testing Tool for JavaScript

Demo

Unit Tests

■ Definition

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

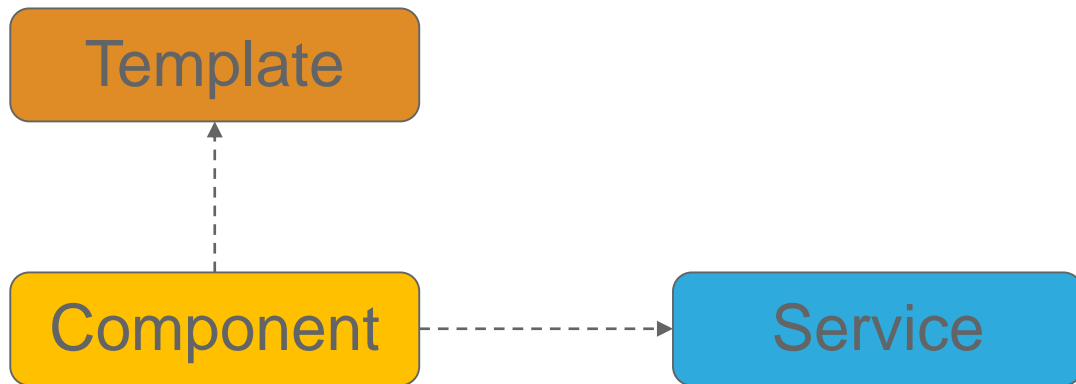
■ Unit Test vs. Integration Test

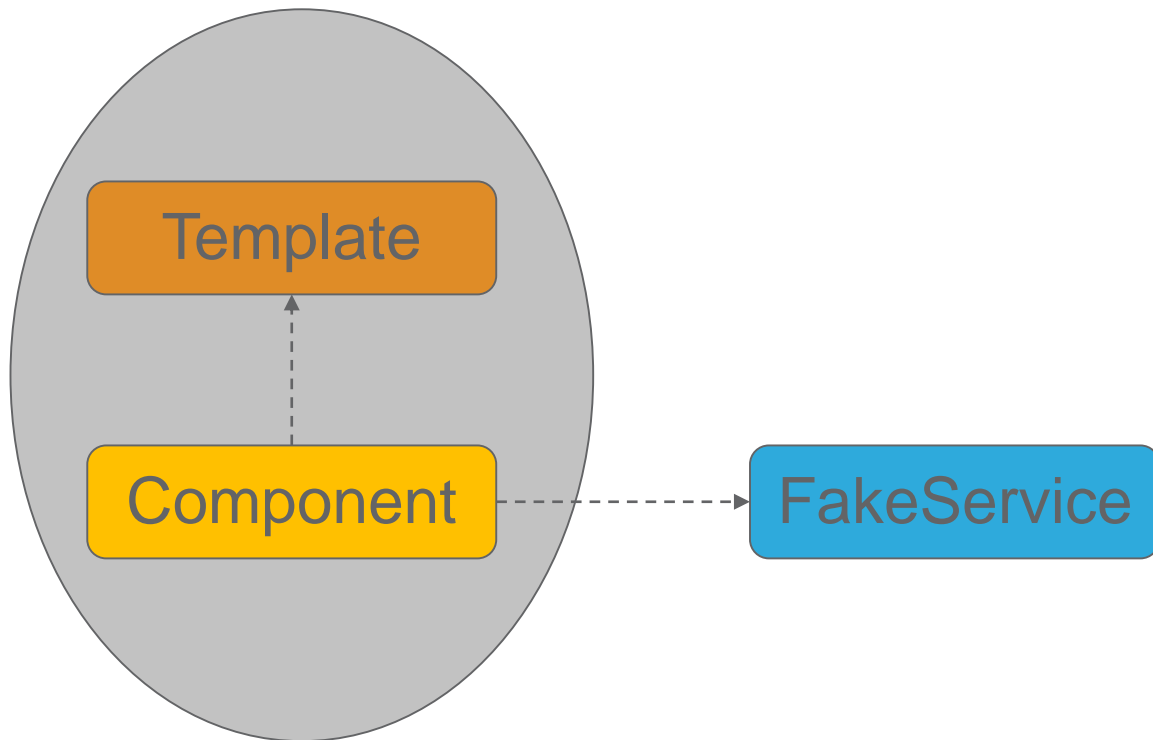
Unit Test

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

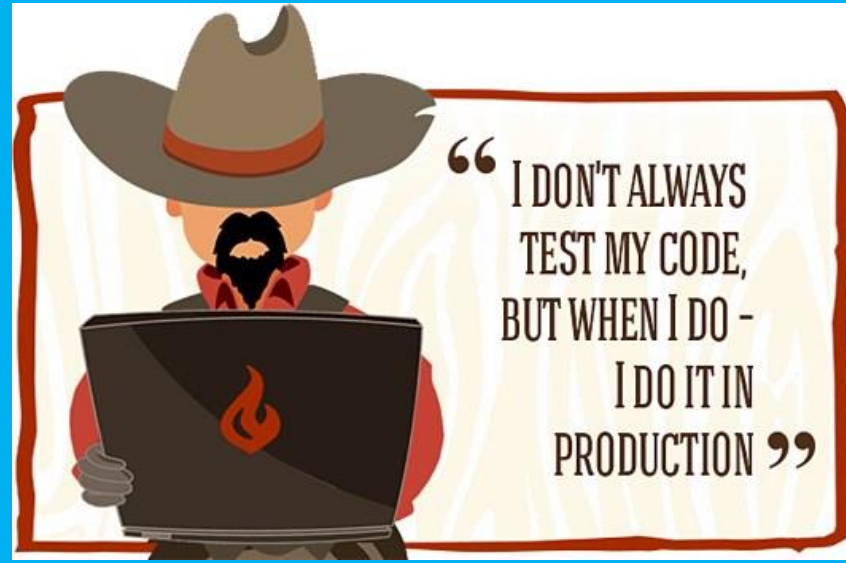
Integration Test

- 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

■ Basics

```
import { browser, element, by } from 'protractor';

describe('QuickStart E2E Tests', function () {

  beforeEach(function () {
    browser.get('/');
  });

  it('should display title', function () {
    expect(element(by.css('h1')).getText()).toEqual("hallo basta");
  });

});
```

Demo

■ How to start

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

Demos and slides



github.com/gassmannT/Angular-Testing-JavaLounge

Thank you – Besten Dank

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