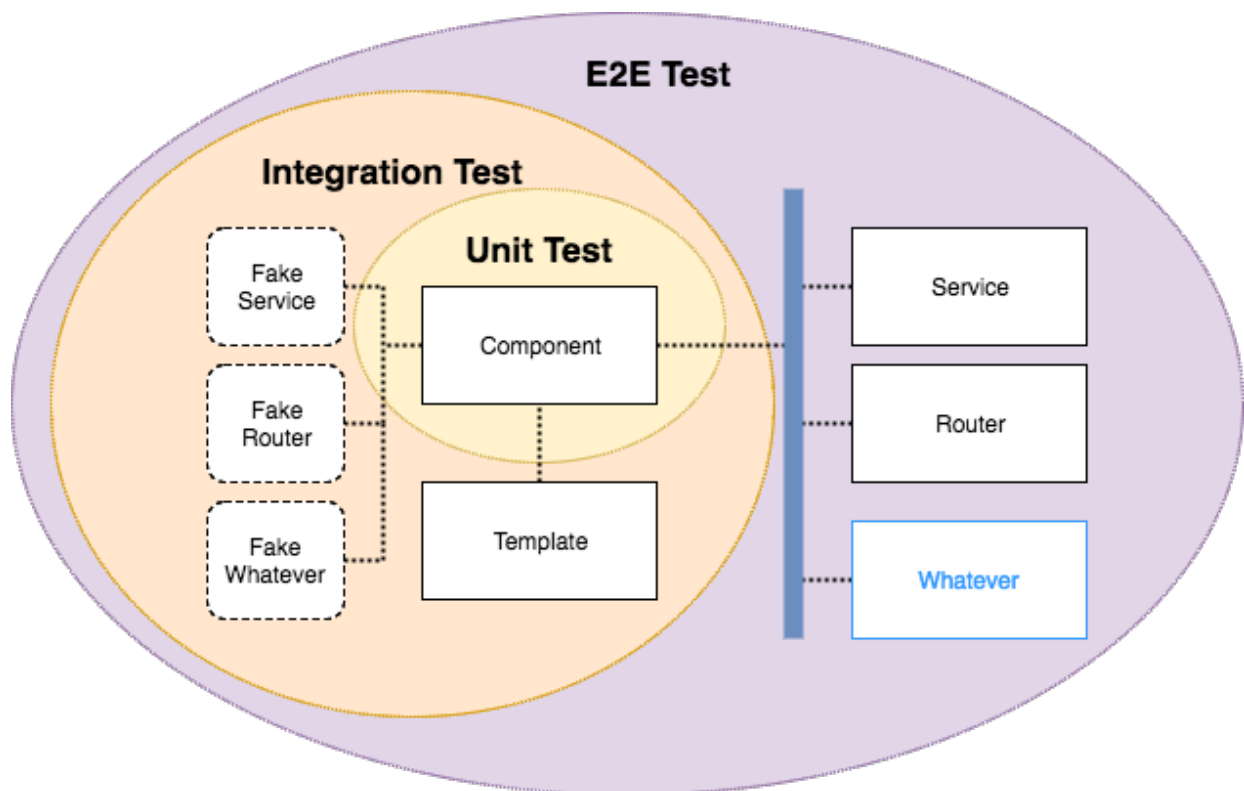


Testing in Angular

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Introduction



Setup

```
npm install -g @angular/cli
ng new ng-testing --routing
npm start
ng test
ng test --code-coverage
```

Angular CLI and its ingredients

Angular CLI (@angular/cli) is a CLI Tool for Angular Applications.

Angular - JavaScript Framework

RxJS - Reactive Extensions

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Linters (eslint, tslint,...)

Jasmine

```
describe('suite title', function () {  
  it('spec title', function () {  
    // ...  
  });  
});
```

Note: `timeouts` in following table are optional.

Global	Signature	Description
afterAll	<code>afterAll (function, timeout)</code>	<p>Timeout in milliseconds.</p> <p>Be careful, sharing the teardown from a <code>afterAll</code> makes it easy to accidentally leak state between your specs so that they erroneously pass or fail.</p>

afterEach	<code>afterEach (function, timeout)</code>	
beforeAll	<code>beforeAll (function, timeout)</code>	Same danger , see <code>afterAll</code> above <code>beforeEach</code> <code>beforeEach (function, timeout)</code>
describe	<code>describe(description, specDefinitions)</code>	
expect	<code>expect(actual) → {matchers}</code>	See matchers in coming chapters
fail	<code>fail(error)</code>	Explicitly mark a spec as failed.
fdescribe	<code>fdescribe(description, specDefinitions)</code>	If suites or specs are focused, only those that are focused will be executed
fit	<code>fit(description, testFunction, timeout)</code>	focused, see <code>fdescribe</code> above
it	<code>it(description, testFunction, timeout)</code>	
pending	<code>pending(message)</code>	Mark a spec as pending, expectation results will be ignored.
spyOn	<code>spyOn(obj, methodName) → {Spy}</code>	Install a spy onto an existing object. More details about says in coming chapters

spyOnProperty	spyOnProperty(obj, propertyName, accessTypeopt) → {Spy}	
xdescribe	xdescribe(description, specDefinitions)	temporarily disabled
xit	xit(description, testFunctionopt)	A temporarily disabled it

Matchers

nothing

`expect().nothing();` expect nothing explicitly.

toBe

`expect(thing).toBe(realThing);` expect the actual value to be === to the expected value

toBeCloseTo

`expect(12.34).toBeCloseTo(12.3, 1);` → success

`expect(12.34).toBeCloseTo(12.3, 1);` → failure