



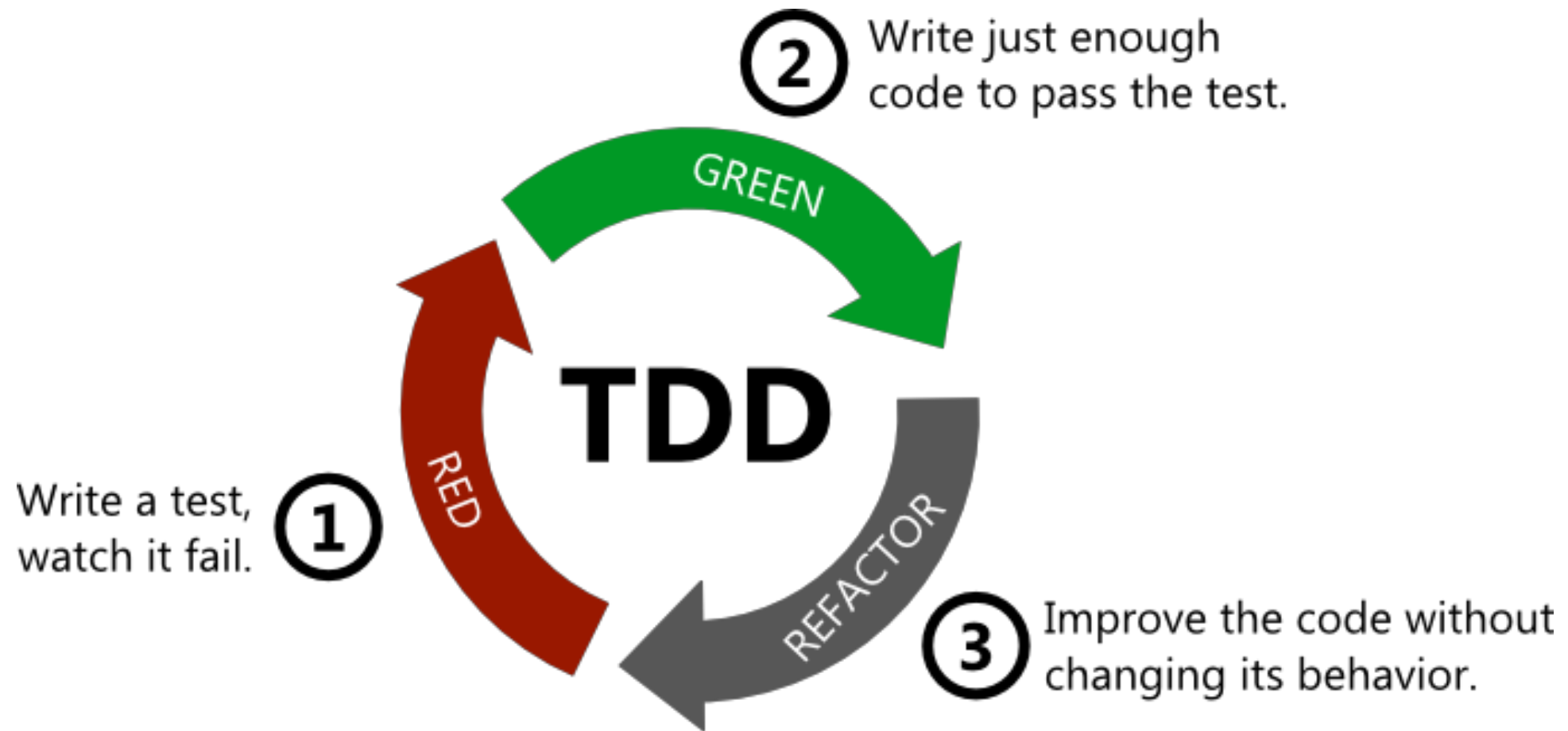
# TEST DRIVEN DEVELOPMENT

# TEST BEFORE YOU CODE

- ➡ TDD is all about, having a run-able specification of what you are about to code.
- ➡ TDD will make you automatically think in smaller pieces of code (functions, components, services, directives, whatever you can imagine).
- ➡ TDD will make you think about scoped responsibilities.

# RULES OF TEST DRIVEN DEVELOPMENT

- ➡ Write a single unit test to verify that some criteria is met.
- ➡ Run the failing test (non compiling code counts as a failing test).
- ➡ Write just enough code so that the test passes.
- ➡ Refactor the code making sure that the test still passes.
- ➡ Start again, incrementally testing and developing your application.



# ANGULAR TEST DRIVER DEVELOPMENT

In order to write test in our angular app we are going to use Jasmine & Karma

Jasmine is the framework to create unit tests for javascript applications.

Karma is the task runner.

# BLOCKS OF JASMINE TEST

- ▶ Suites
- ▶ Specs
- ▶ Expectations & Matchers

To manage any duplicate code, jasmine provides global functions `beforeEach`, `afterEach`, `beforeAll` & `afterAll`.

```
describe("A suite is just a function", function() {  
  var a;  
  
  it("and so is a spec", function() {  
    a = true;  
  
    expect(a).toBe(true);  
  });  
});
```

# TESTING IN ANGULAR

- ➡ First step is to import TestBed from `@angular/core/testing`.
- ➡ TestBed is similar to `@NgModule` helps to setup our dependencies inside the test file.
- ➡ We call `TestBed.configureTestingModule` passing our configuration. This information will then be used to resolve any dependencies.



```
import { TestBed, async } from '@angular/core/testing';
import { AppComponent } from './app.component';
describe('AppComponent', () => {
  let app, fixture;
  beforeEach(async(() => {
    TestBed.configureTestingModule({
      declarations: [
        AppComponent
      ],
    }).compileComponents();
    fixture = TestBed.createComponent(AppComponent);
    app = fixture.debugElement.componentInstance;
  }));

  it('should create the app', () => {
    // const fixture = TestBed.createComponent(AppComponent);

    expect(app).toBeTruthy();
  });

  it(`should have as title 'tdd-demo'`, () => {
    expect(app.title).toEqual('tdd-demo');
  });
});
```