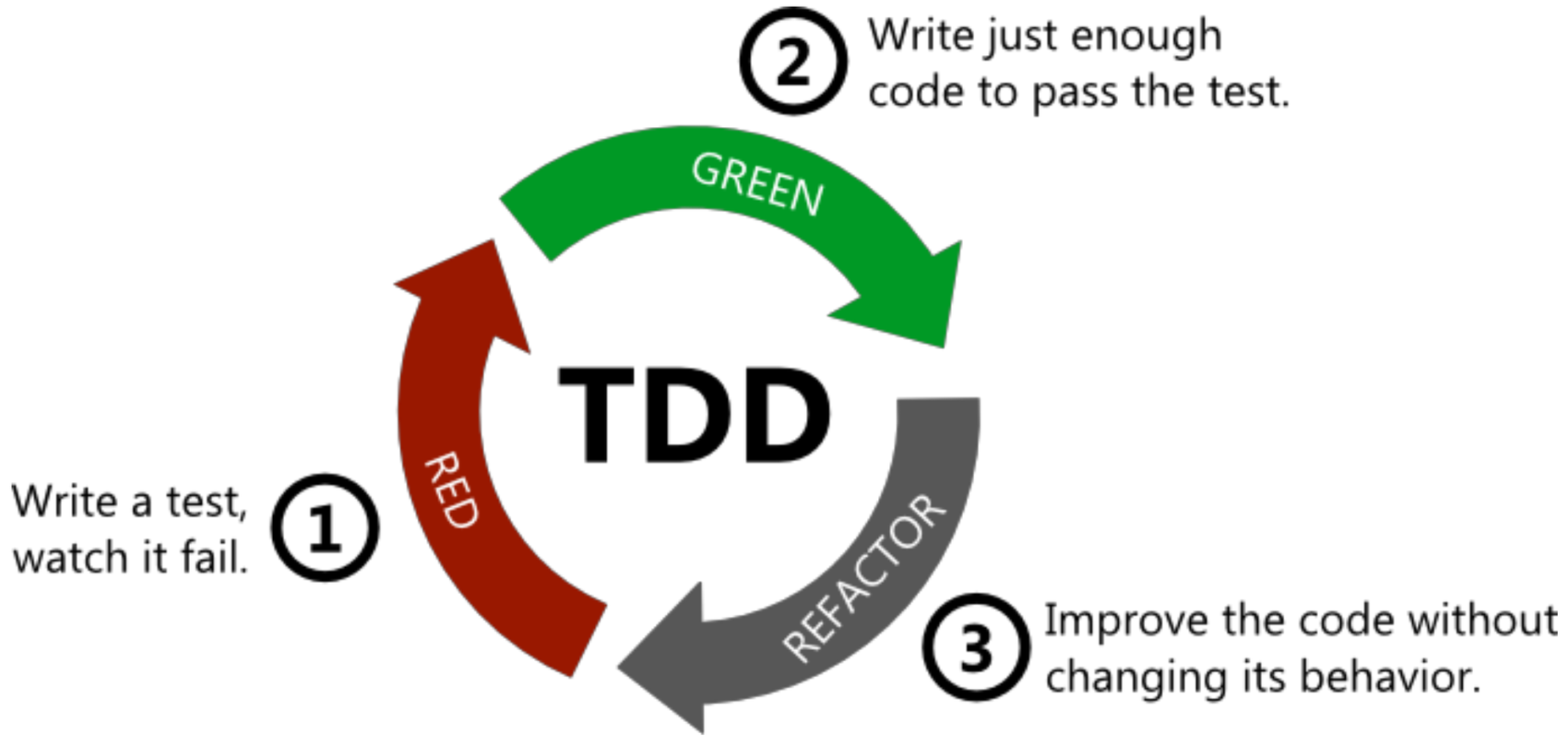
TEST DRIVEN DEVELOPMENT

TEST BEFORE YOU CODE

- TDD is all about, about having a run-able specification of what you are about to code.
- TDD will make you automatically think in smaller peaces of code (functions, components, services, directives, whatever you can imagine).
- TDD will make you think about well scoped responsibilities, will make you take design decision you otherwise may be ignoring.

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.


2
Write just enough
code to pass the test.
GREEN
TDD
RED
REFACTOR
Write a test,
watch it fail.
1
3
Improve the code without
changing its behavior.

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');
  });
```