

Test-Driven Development

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What is a test?

Unit Tests

Given	
When	I add 2 and 3
Then	The sum is 5

Test-Driven Development

Test-Driven Development

```
public void UnitTest()  
{  
    int[] inputs = new[] {2, 3};  
    int expectedOutput = 5;  
  
    int actualOutput = Add(inputs);  
  
    bool passed = actualOutput == expectedOutput;  
}
```


Code Demo

Write a
failing
test

Make the
test pass

Refactor

Nat Pryce

Why do TDD?

Executable Specification

Living Documentation

Focus

TDD is a design tool

Automated regression testing

In a single phrase? TDD increases productivity because the hard part of programming is thinking, and TDD makes thinking faster.

- Michael Hill (GeePawHill)

TDD like satellite navigation

TDD is **NOT** about testing

1. Specification
2. Living documentation
3. Design
4. Automated testing

More Resources

- TDD by Example – Kent Beck
- Katas
- Code Retreats

TDD Recap

No code without a failing test

Simplest possible thing

Red Green Refactor