Test-Driven Development with Predictions

An Introduction to the PREDICTIVE TDD PROCESS

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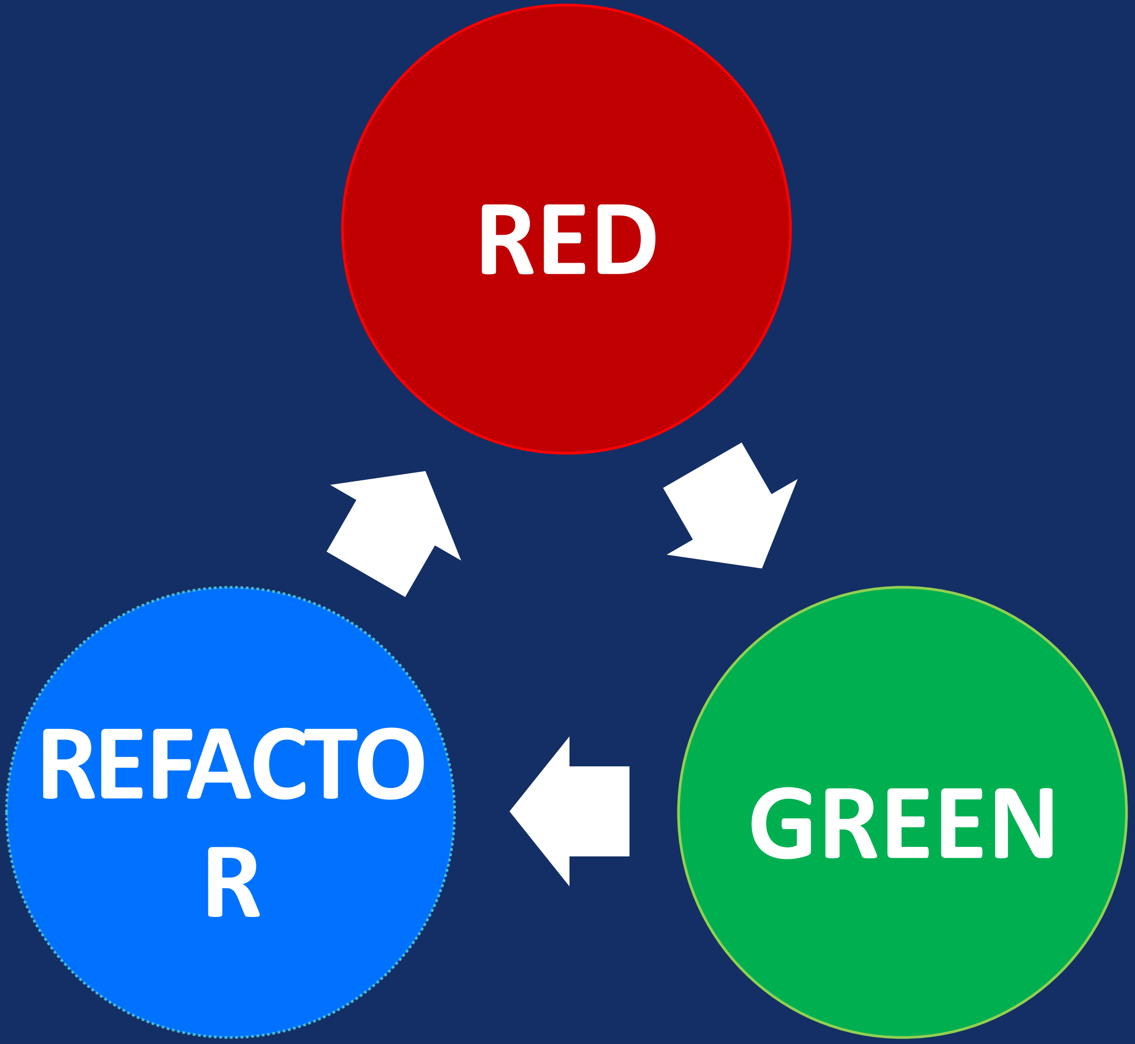
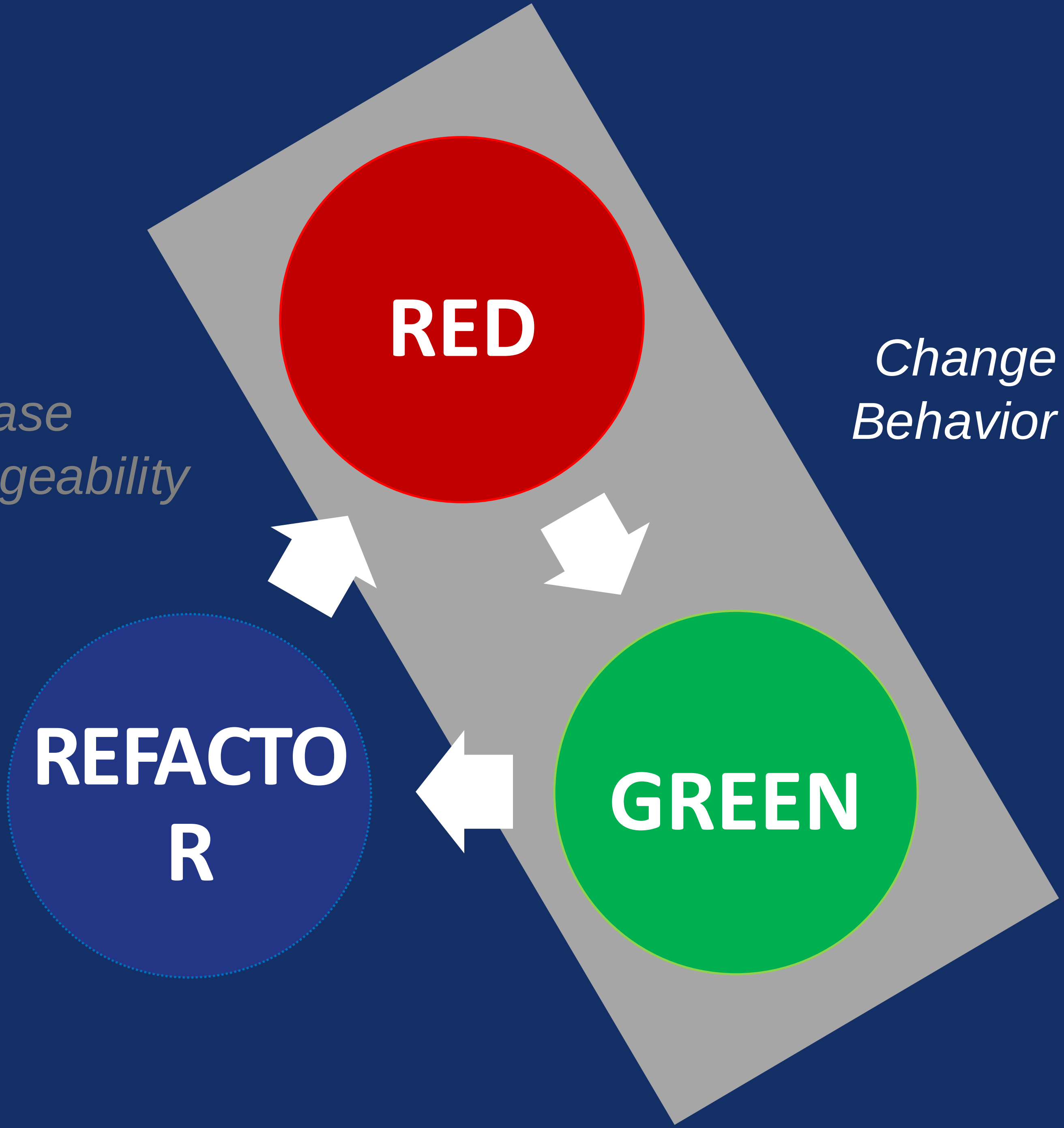
https://tddga.me
@jitterted

TDD Cycle

1. Think and write next specification (as a test)
2. It should Fail (Red)
3. Write just enough code to pass (Green)
4. Refactor (tests still pass) until happy
5. Repeat from 1





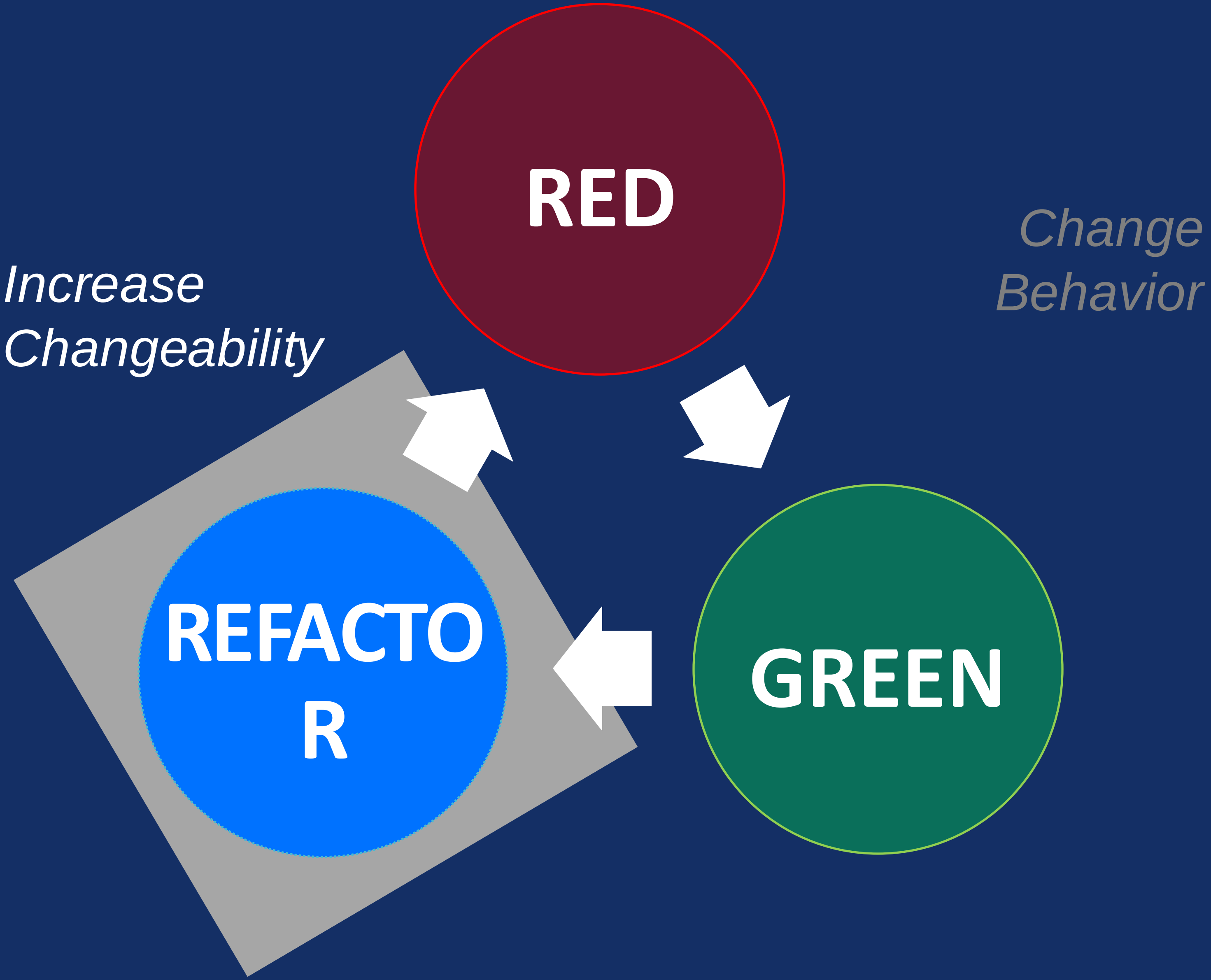
RED

GREEN

REFACTO
R

Change
Behavior

Increase
Changeability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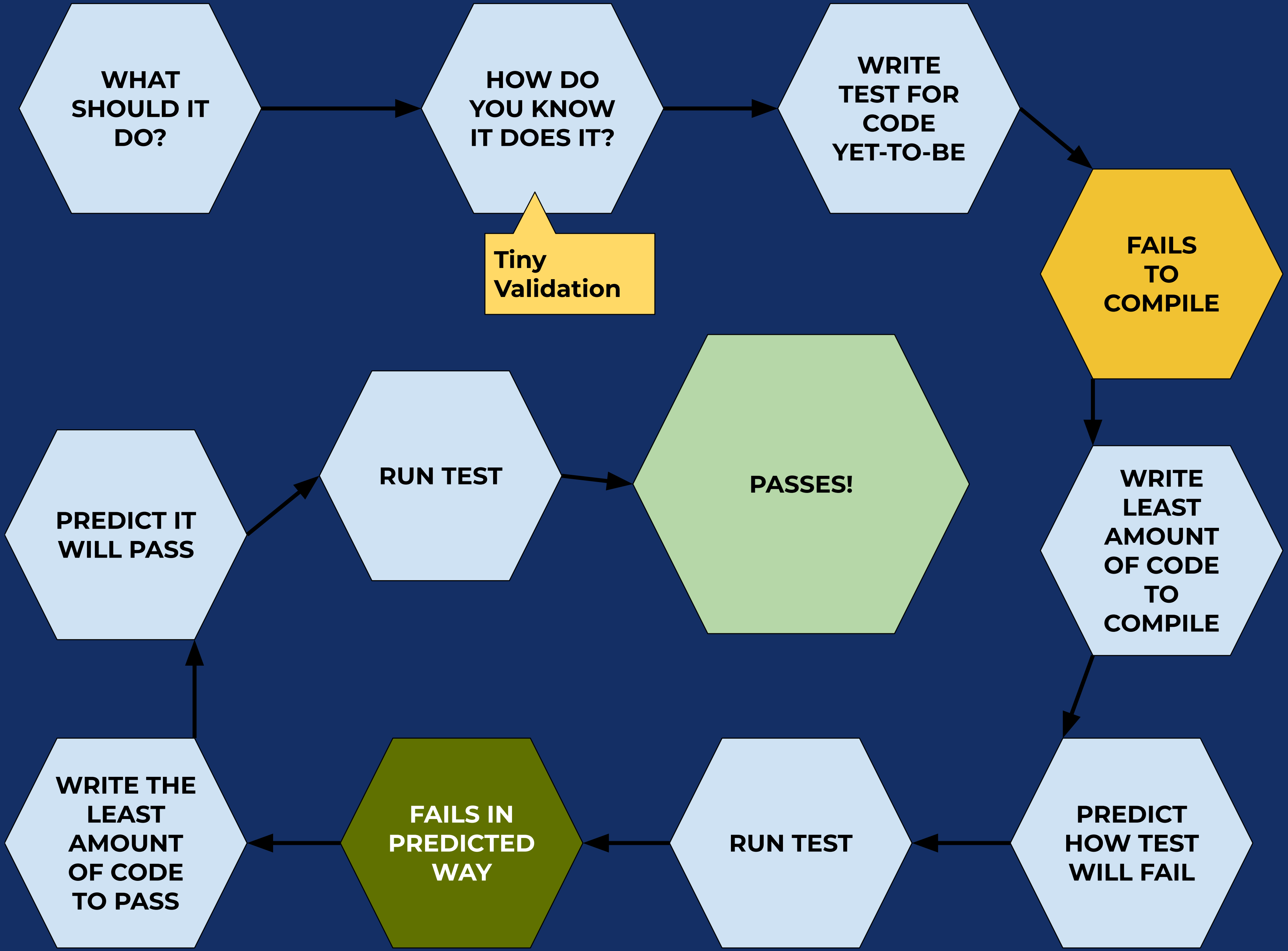

WHAT SHOULD IT DO?

HOW DO YOU KNOW IT DOES IT?

Tiny Validation

WRITE TEST FOR CODE YET-TO-BE

FAILS TO COMPILE

WRITE LEAST AMOUNT OF CODE TO COMPILE

PREDICT HOW TEST WILL FAIL

RUN TEST

FAILS IN PREDICTED WAY

WRITE THE LEAST AMOUNT OF CODE TO PASS

PREDICT IT WILL PASS

RUN TEST

PASSES!

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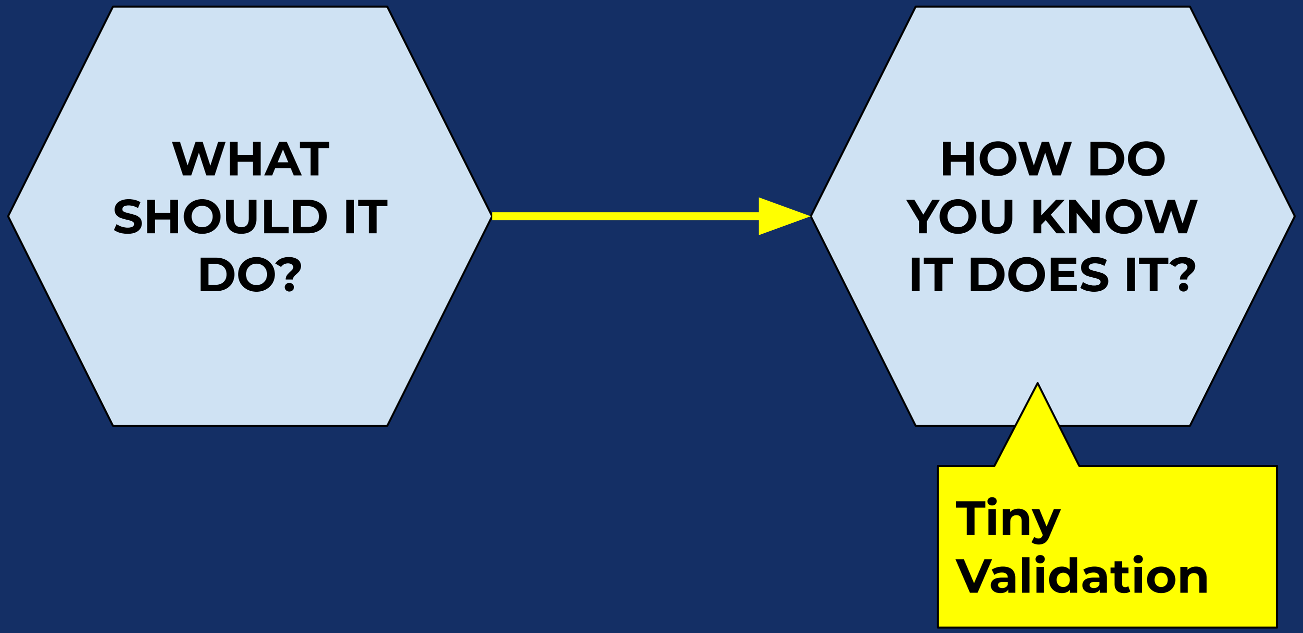
1: The Hard Part (Think!)



WHAT SHOULD IT DO?

HOW DO YOU KNOW IT DOES IT?

Tiny Validation

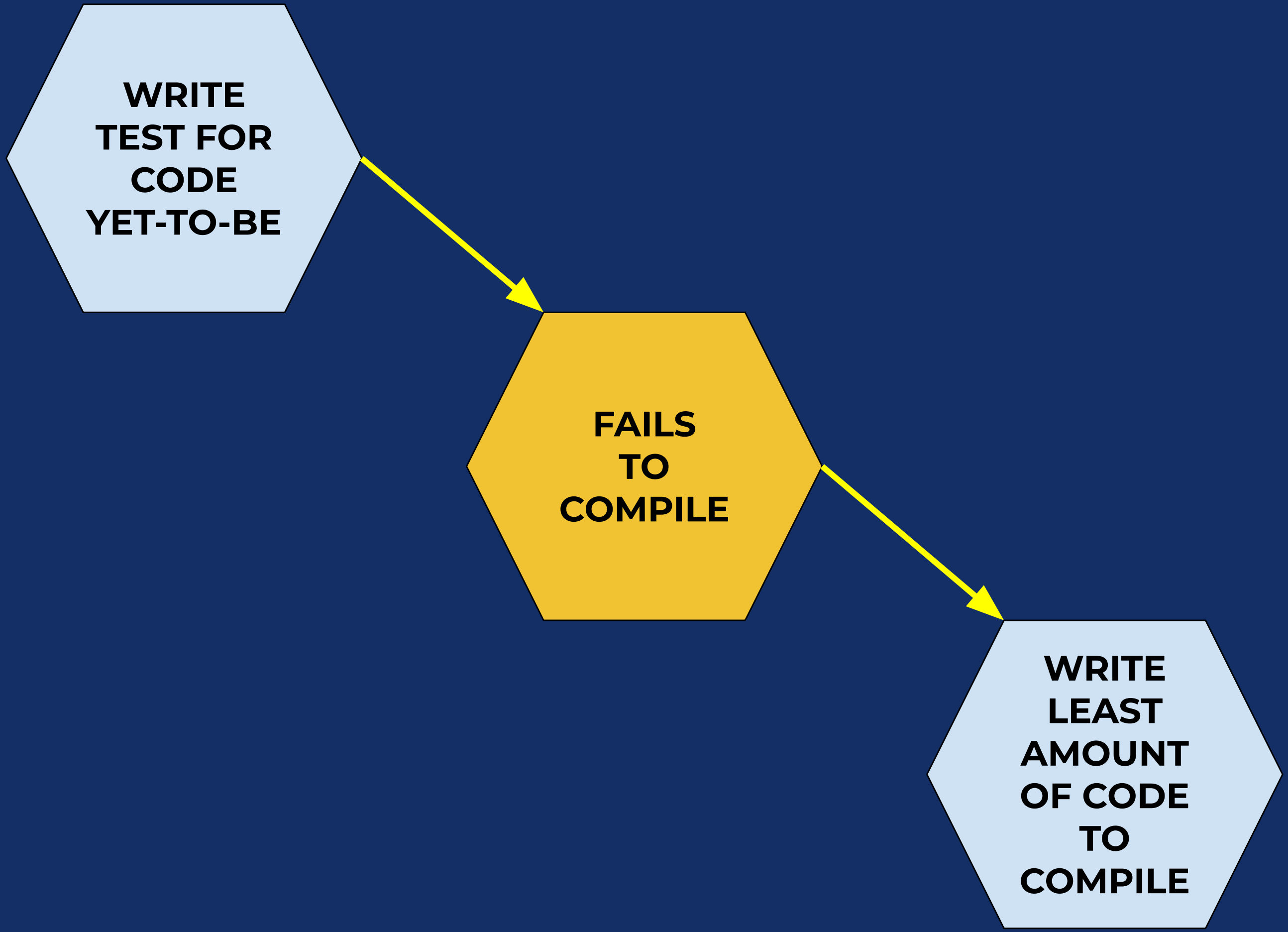
No Behavior Changes to Production Code without a Failing Test

TDD Principle #1

Test Runs & Fails Before Passing

TDD Principle #2

2: Doesn’t Compile (optional)



WRITE TEST FOR CODE YET-TO-BE

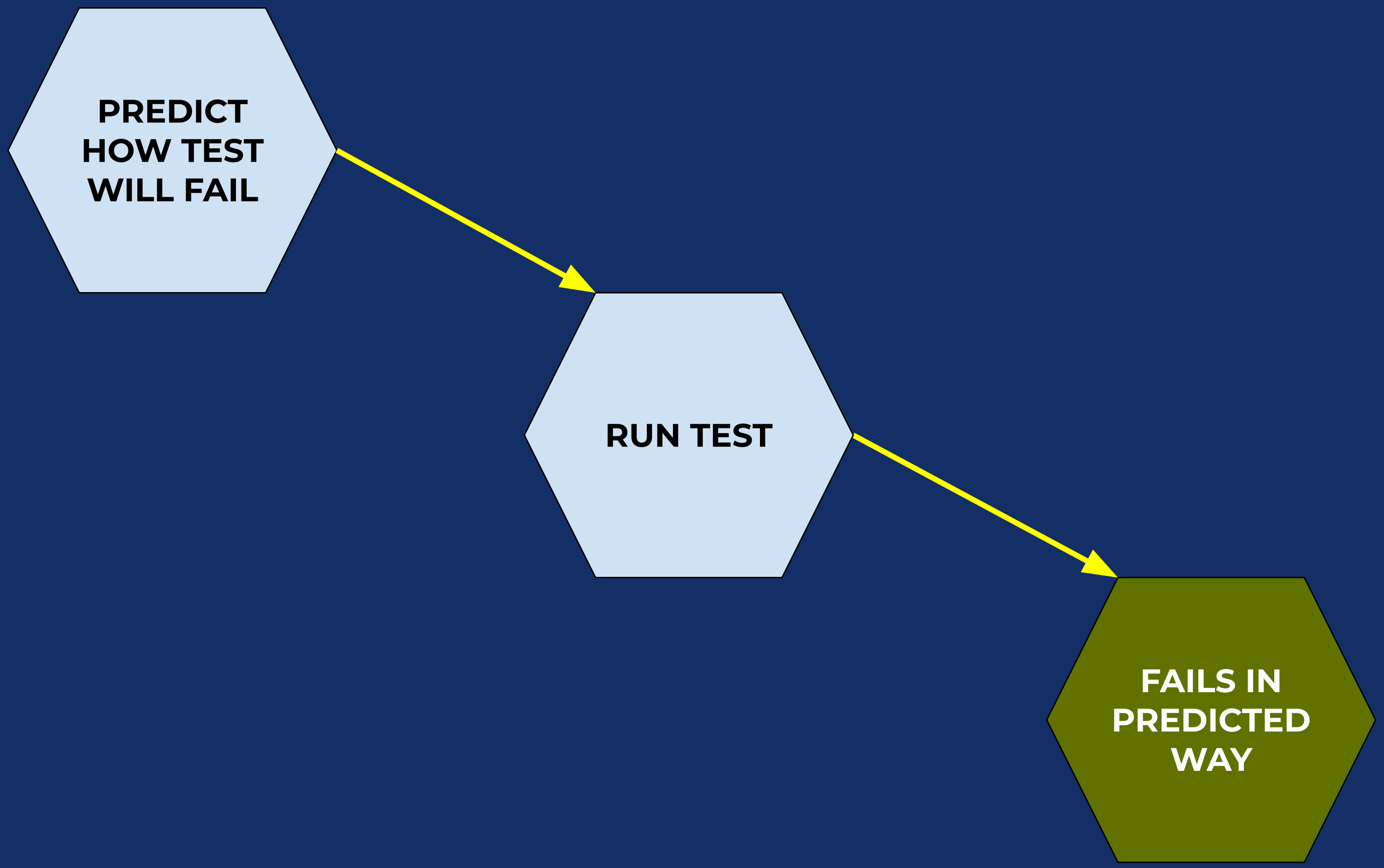
FAILS TO COMPILE

WRITE LEAST AMOUNT OF CODE TO COMPILE

Test Must Fail For Right Reason

TDD Principle #3

3: Test Fails Predictably



PREDICT HOW TEST WILL FAIL

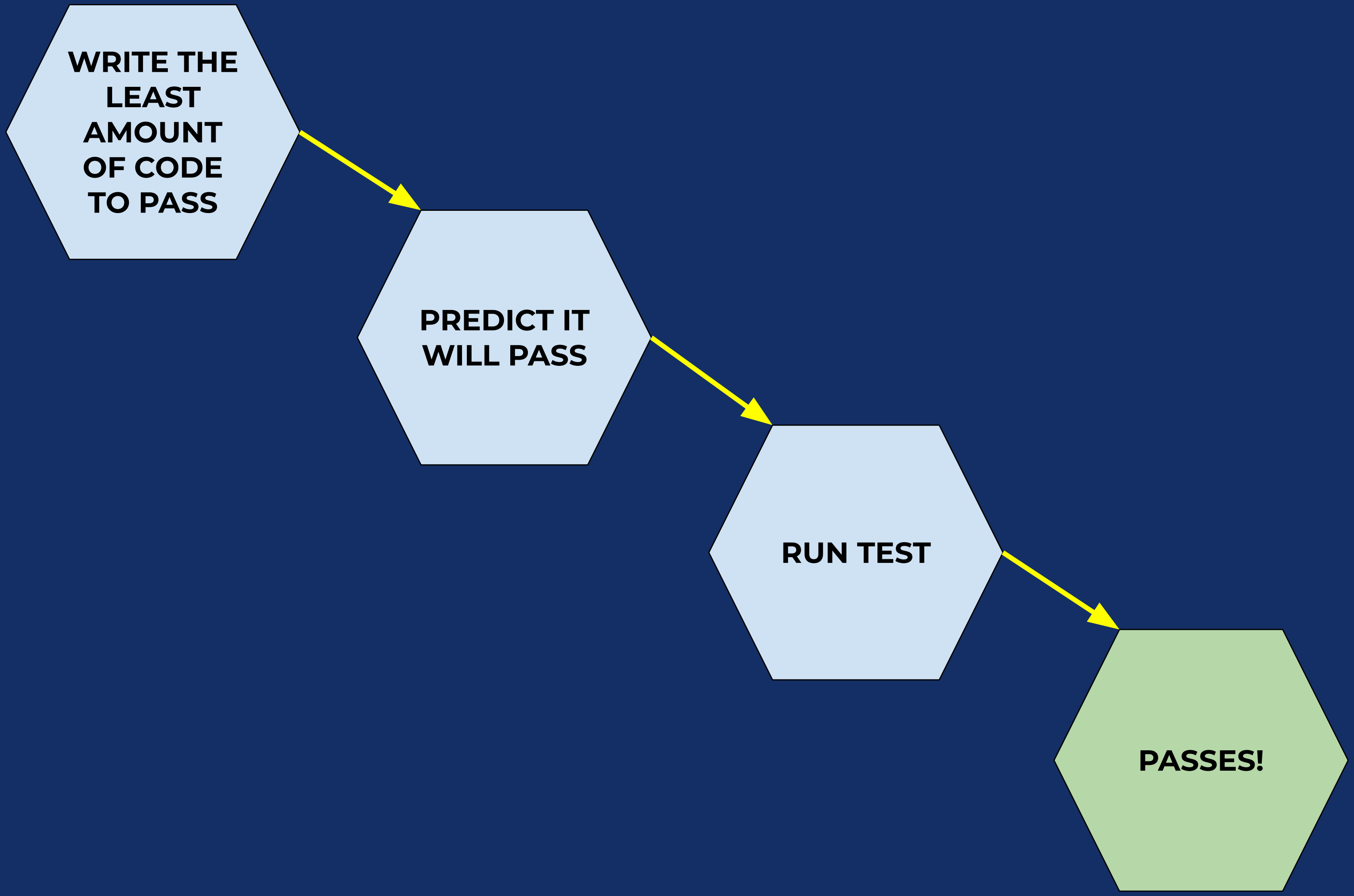
RUN TEST

FAILS IN PREDICTED WAY

Minimal (Least Effort) Code to Passing Test

TDD Principle #4

4: Write Production Code



WRITE THE LEAST AMOUNT OF CODE TO PASS

PREDICT IT WILL PASS

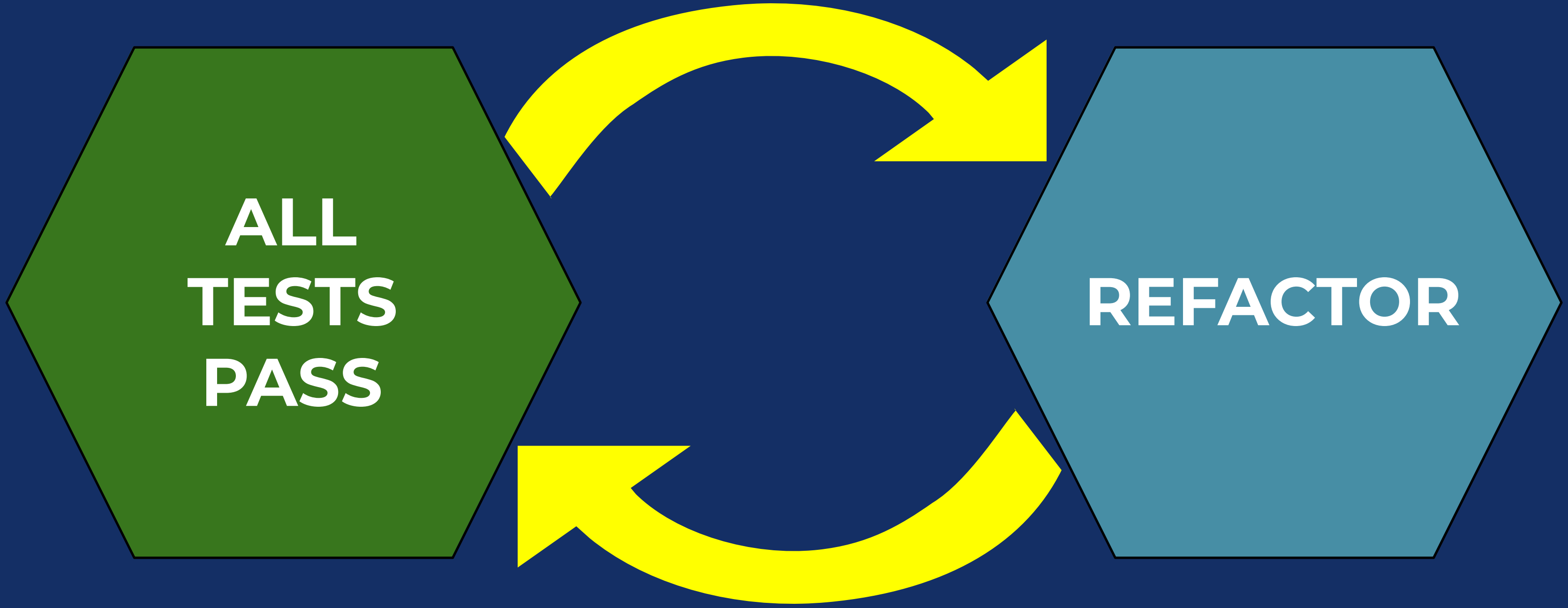
RUN TEST

PASSES!

Refactoring: Stay in the Green

TDD Principle #5

5: Refactoring (Don't Forget)



Questions

What Questions Do You Have Right Now?

NEXT: THE GAME

history of the game

JITTERTED's TDD GAME

Goal of Game

First to 5 "commits" wins

or

Most commits wins (timeboxed)

The Action Cards

The Board

Multiple Paths: Choose Wisely

Player 1

Playing it Safe

Player 2

Taking a Risk

Player 1

Learned a Lesson

Player 2

Pays the Price

Technical Risk Cards

aka TECH DEBT

Questions

Last Chance for Questions…

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That’s All Folks!

Thank You.

Ted M. Young

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