INTRODUCTION TO

TEST-DRIVEN DEVELOPMENT

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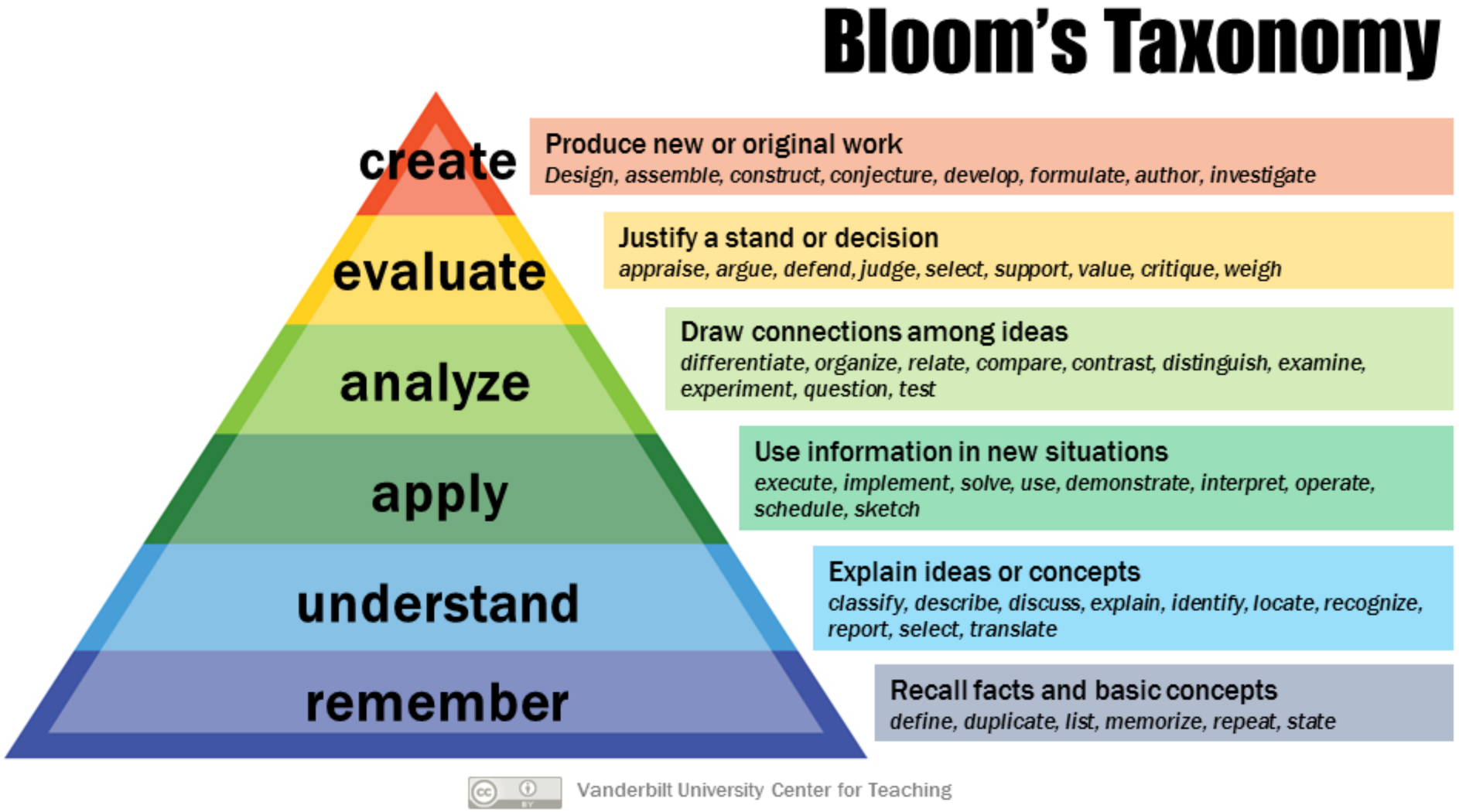
TODAY'S LEARNING OBJECTIVE



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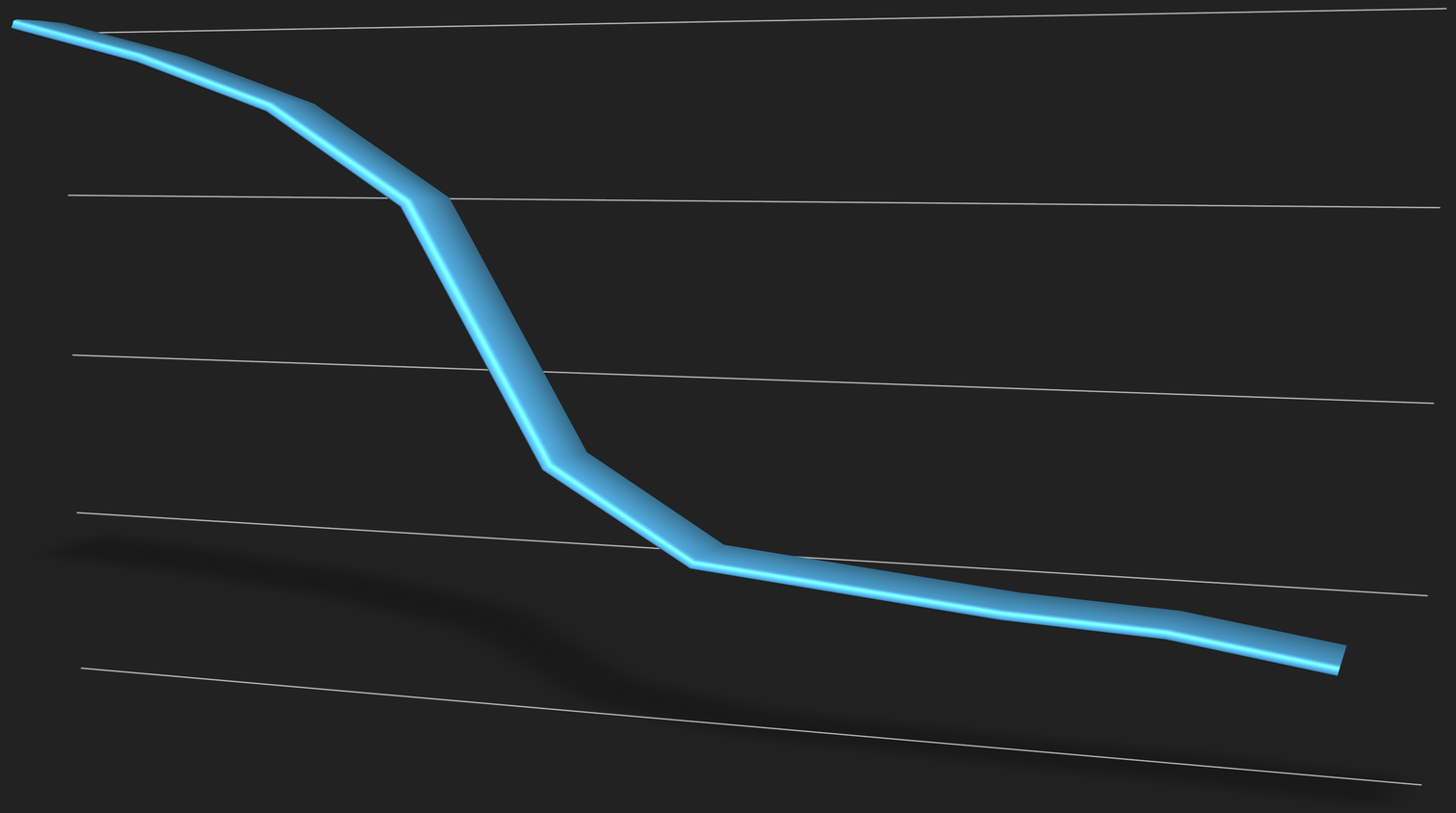
HOW PRODUCTIVE IS YOUR TEAM?



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WHICH SHOULD WE CHOOSE?

QUALITY VS. SPEED

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THE ONLY WAY TO GO FAST IS TO GO WELL.

Robert C. Martin, author of Clean Code

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ARE AUTOMATED TESTS NECESSARY?

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- Are you afraid to touch code?

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- Are you afraid to touch code?
- How long does it take to get feedback?

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ARE AUTOMATED TESTS NECESSARY?

- Are you afraid to touch code?
- How long does it take to get feedback?

AUTOMATED TESTS ARE YOUR SAFETY NET!

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BUT DO I HAVE TO WRITE THEM FIRST?

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WHAT DEVELOPERS SAY WHEN THEY DON'T WRITE TESTS FIRST

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WHAT DEVELOPERS SAY WHEN THEY DON'T WRITE TESTS FIRST

- "This is too hard to test, let's just skip it."

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WHAT DEVELOPERS SAY WHEN THEY DON'T WRITE TESTS FIRST

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WITH TDD, TESTING IS EASY!

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HOW DO WE DO IT?

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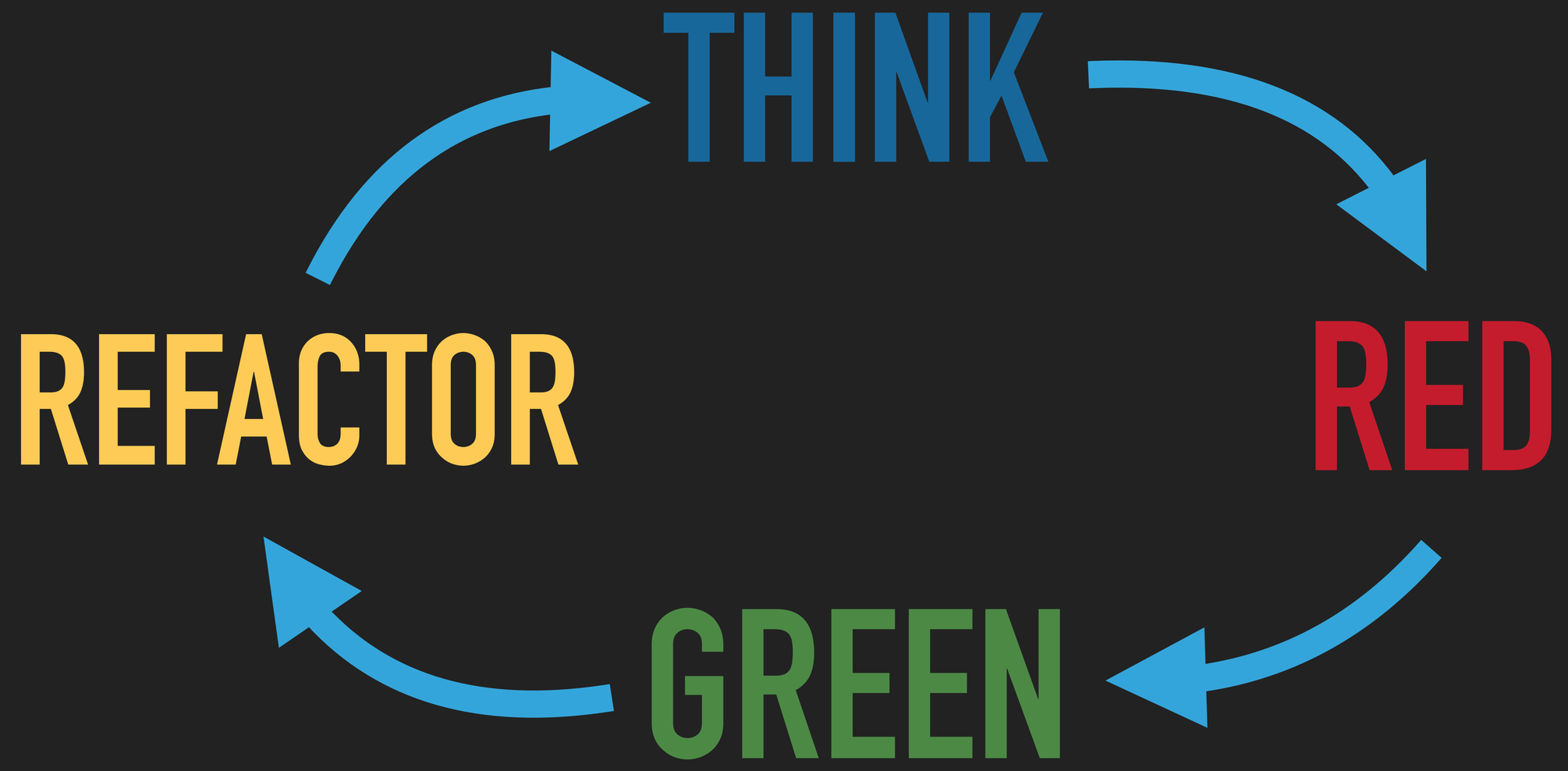

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THINK

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THINK

What is the thinnest slice of behavior we can incrementally add?

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What is the thinnest slice of behavior we can incrementally add?

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THINK

What is the thinnest slice of behavior we can incrementally add?

Write that down as the test name

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RED

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RED

- Write a failing test for that behavior

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RED

- Write a failing test for that behavior
- Verify it failed for the right reason

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RED

- Write a failing test for that behavior
- Verify it failed for the right reason

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GREEN

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GREEN

What is the simplest way we can add the behavior?

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GREEN

What is the simplest way we can add the behavior?

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GREEN

What is the simplest way we can add the behavior?

Remember that simple isn't always easy.

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REFACTOR

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REFACTOR

- Remove duplication

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REFACTOR

- Remove duplication
- Improve readability

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REFACTOR

- Remove duplication
- Improve readability
- Simplify

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REFACTOR

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Remember to constantly run tests to stay green!

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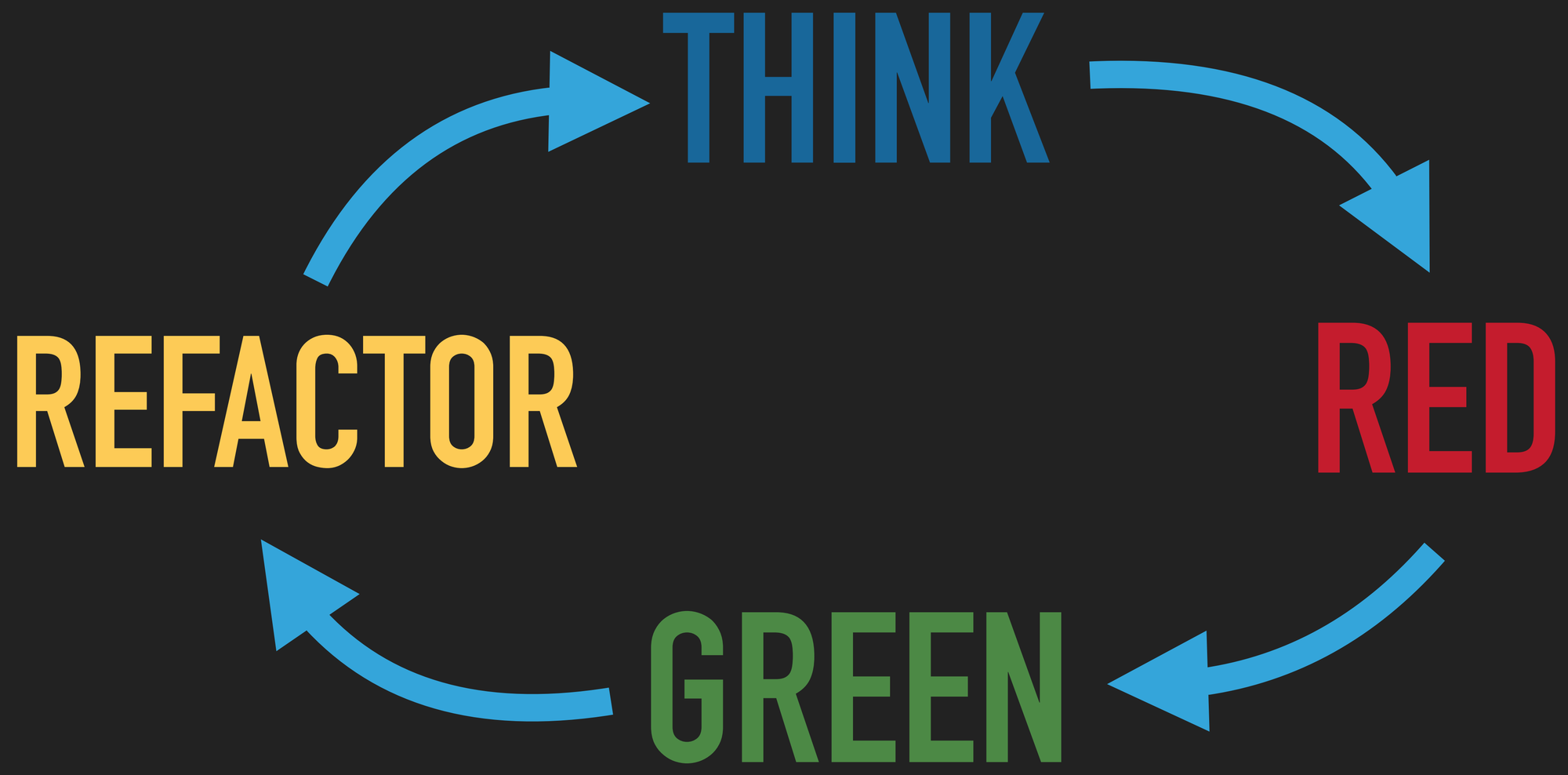

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CLEAN TESTS

ARRANGE, ACT, ASSERT

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HOW TO TAKE SMALL STEPS IN TDD

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HOW TO TAKE SMALL STEPS IN TDD

- Fake it

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HOW TO TAKE SMALL STEPS IN TDD

- Fake it
- Triangulate

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HOW TO TAKE SMALL STEPS IN TDD

- Fake it
- Triangulate
- Obvious implementation

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F T O

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