

A grayscale photograph of a person with dark hair wearing large headphones, looking intently at a laptop screen. Their hands are clasped near their chin in a thoughtful pose. The background is blurred, showing what appears to be a modern office or tech environment. Overlaid on the image is a white rectangular border containing the text 'TEST DRIVEN DEVELOPMENT' in a large, white, serif font, and 'Java Clean code' in a smaller, white, serif font below it.

TEST DRIVEN DEVELOPMENT

Java Clean code

Outline

Lesson 11

Components

Lesson 12.

Architecture

Lesson 13.

Test Driven Development

*Any fool can write code that
a computer can understand.
Good programmers write code that
humans can understand.*

Martin Fowler





Laws for TDD by Kent Beck

- **Don't write a line of new code unless you first have a failing automated test**
- **Eliminate duplication**



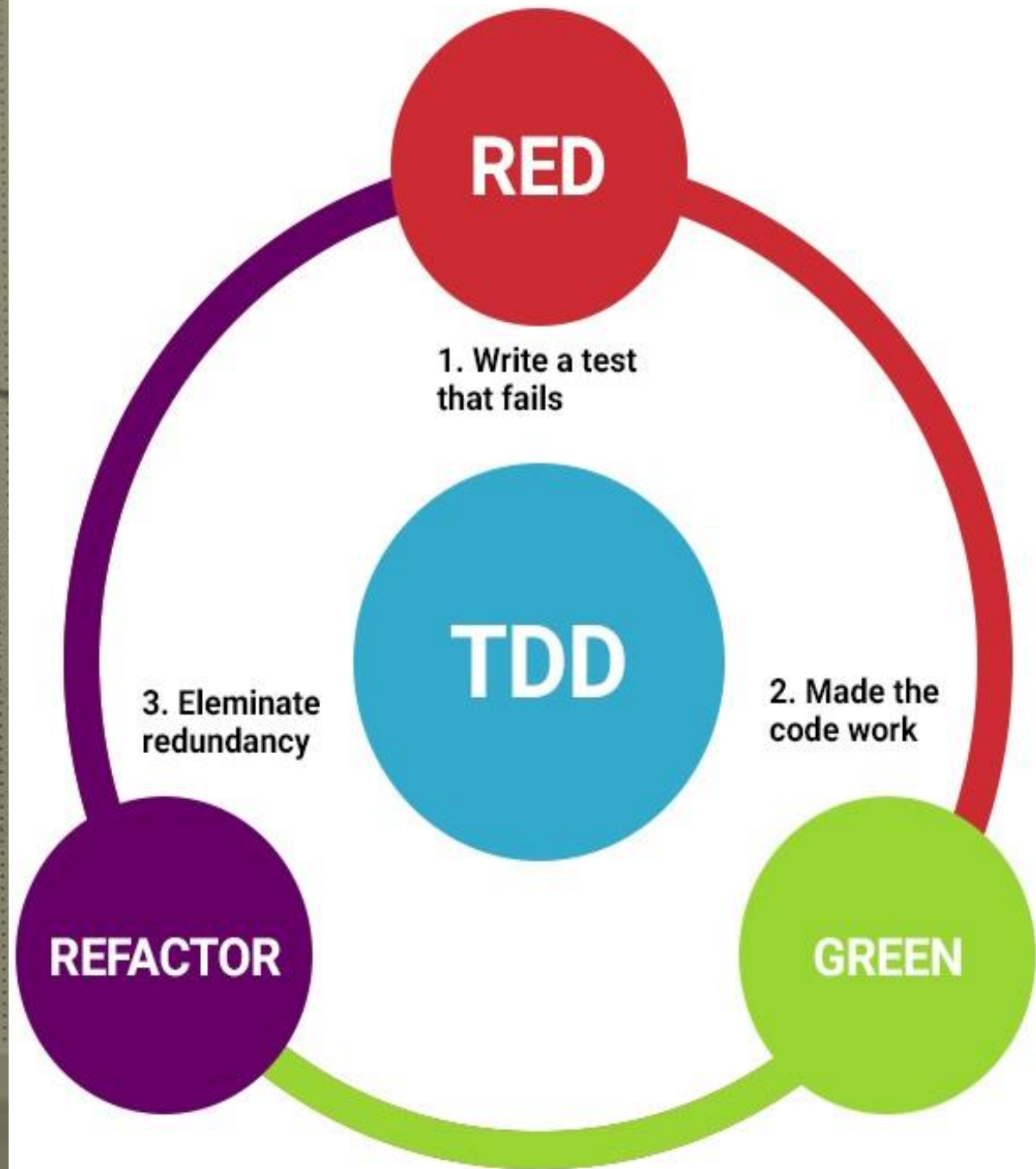
Laws for TDD by Uncle Bob

- You must write a failing test before you write any production code.
- You must not write more of a test than is sufficient to fail, or fail to compile.
- You must not write more production code than is sufficient to make the currently failing test pass.



Laws for TDD by Martin Fowler

- Write a test for the next bit of functionality you want to add.
- Write the functional code until the test passes.
- Refactor both new and old code to make it well structured.



Test Driven Development

- Enough to fail
- Enough to pass
- Keep going



Test Driven Development

- Debug time
- Design documents
- Code change
- Not perfect



TDD legacy code

- Catch 22 or deadlock
- QA should not find bugs
- 85% code coverage



A black and white photograph of three people (two men and one woman) standing around a table, looking at a laptop. The man on the left is leaning over the table, pointing at the screen. The man in the middle is standing behind him, also looking at the screen. The woman on the right is standing and looking at the screen. They are all wearing glasses. The background is a wall with a grid of small holes.

TDD Summary

- Debug time
- Reliable documentation
- Code change

Course Progress

Lesson 11

Components

Lesson 12

Architecture

Lesson 13

Test Driven Development

A sepia-toned photograph of a person's hands clapping over a desk. On the desk, there is a laptop and a smartphone. A semi-transparent dark grey box is overlaid on the left side of the image, containing the text 'FURTHER READING' and two links.

FURTHER READING

- <https://martinfowler.com/bliki/TestDrivenDevelopment.html>
- <https://blog.cleancoder.com/uncle-bob/2014/12/17/TheCyclesOfTDD.html>

A sepia-toned photograph of a person clapping their hands. In the foreground, a wooden desk holds an open notebook with a smartphone resting on it. A laptop is partially visible in the background. A dark grey rectangular box with a thin white border is overlaid on the left side of the image, containing the text 'THANK YOU!'.

THANK YOU!