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A Gentle Introduction

TDD IN GO

*Practice, libraries and tools for
Test-Driven Development in the Go language*

Luciano Ramalho | [@standupdev](https://twitter.com/standupdev) | [@ramalhoorg](https://twitter.com/ramalhoorg)

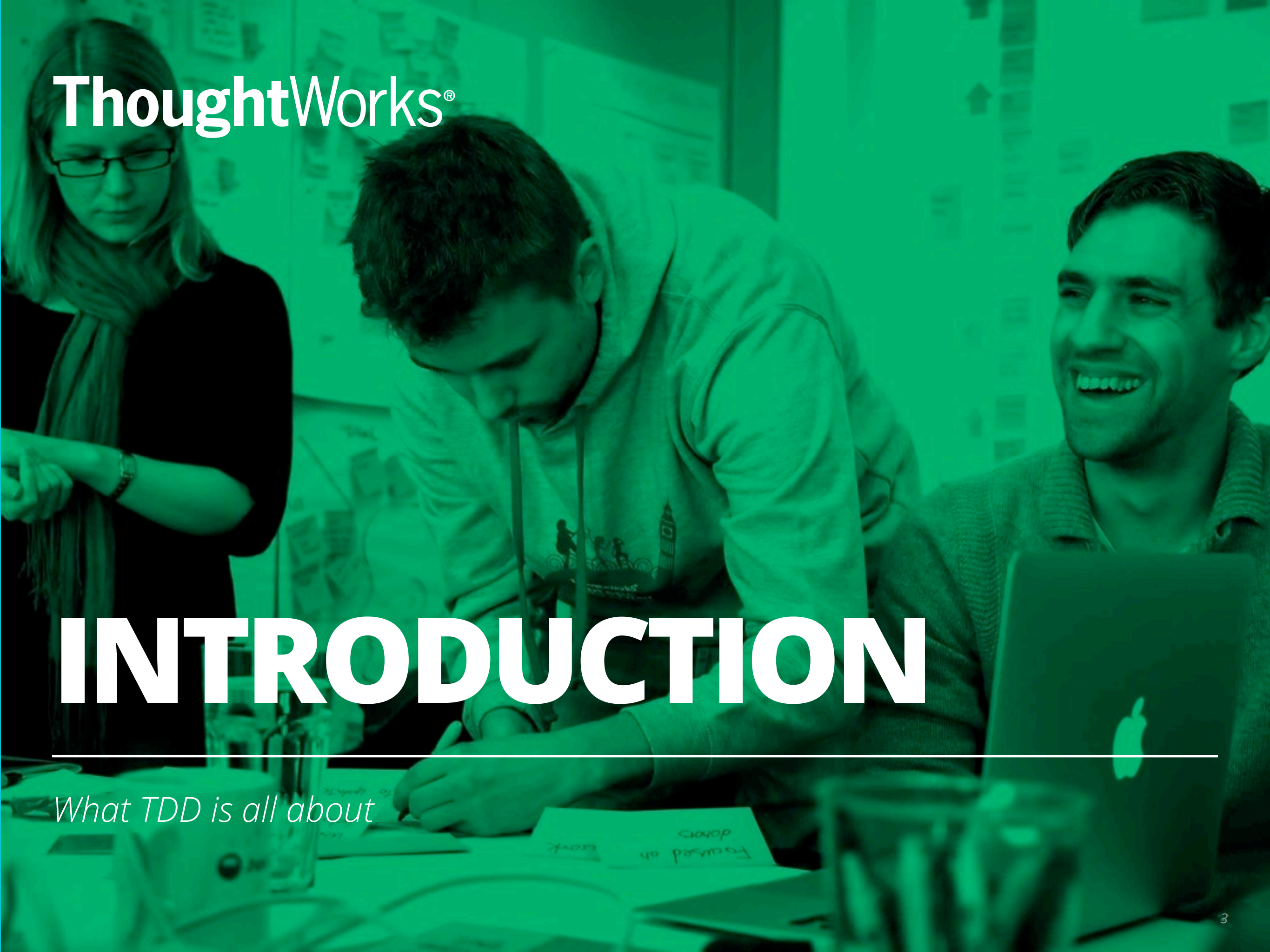
AGENDA

Brief introduction

Coding Dojo: Romans (prepared kata)

Coding Dojo: Runes (randori style)

Overview of tools and libraries



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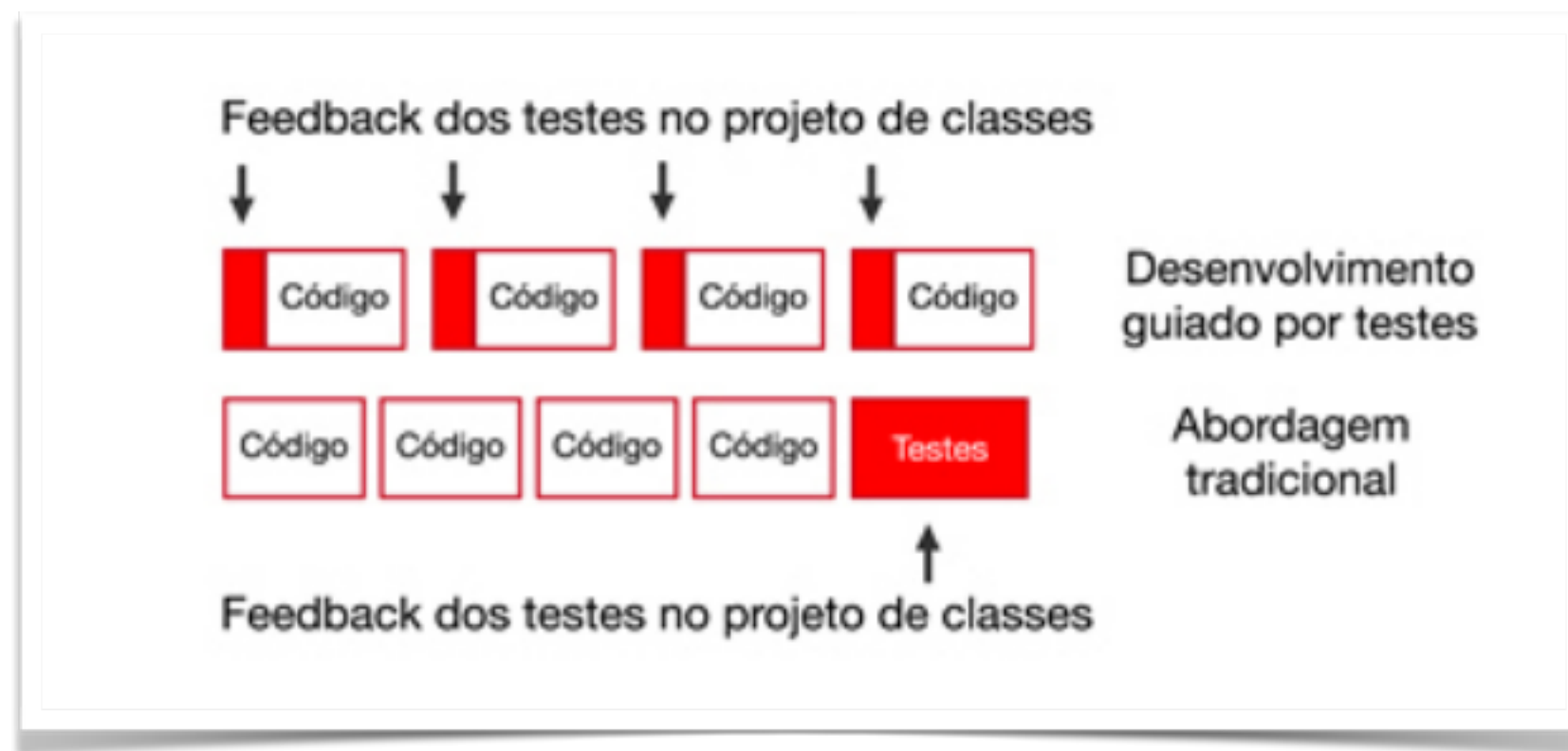
INTRODUCTION

What TDD is all about

ABOUT TDD

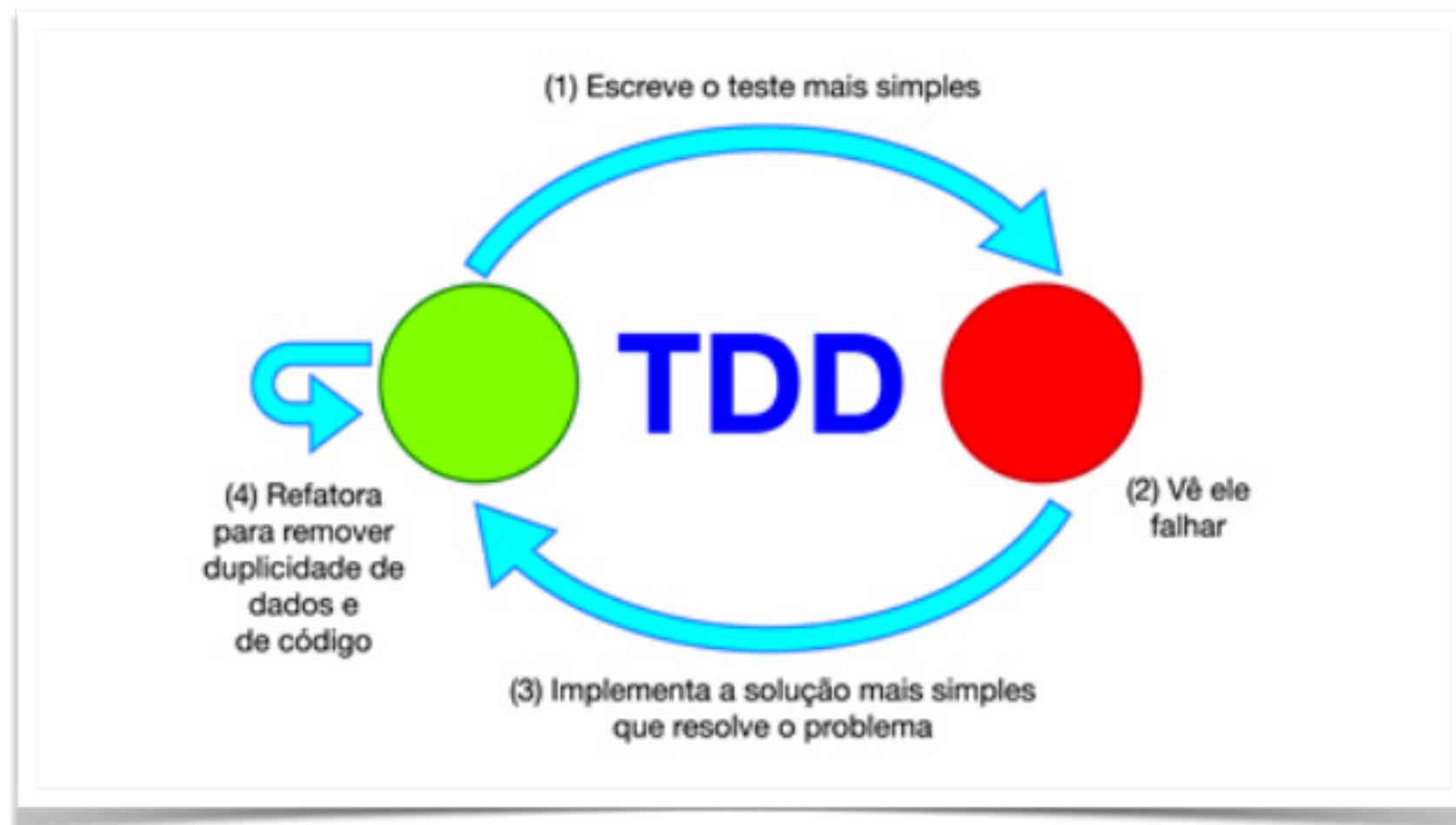
Test-Driven Development | Design

Test-first approach



Source: **Test-Driven Development**, by Hugo Corbucci and Mauricio Aniche

TDD CYCLE



Source: **Test-Driven Development**, by Hugo Corbucci and Mauricio Aniche

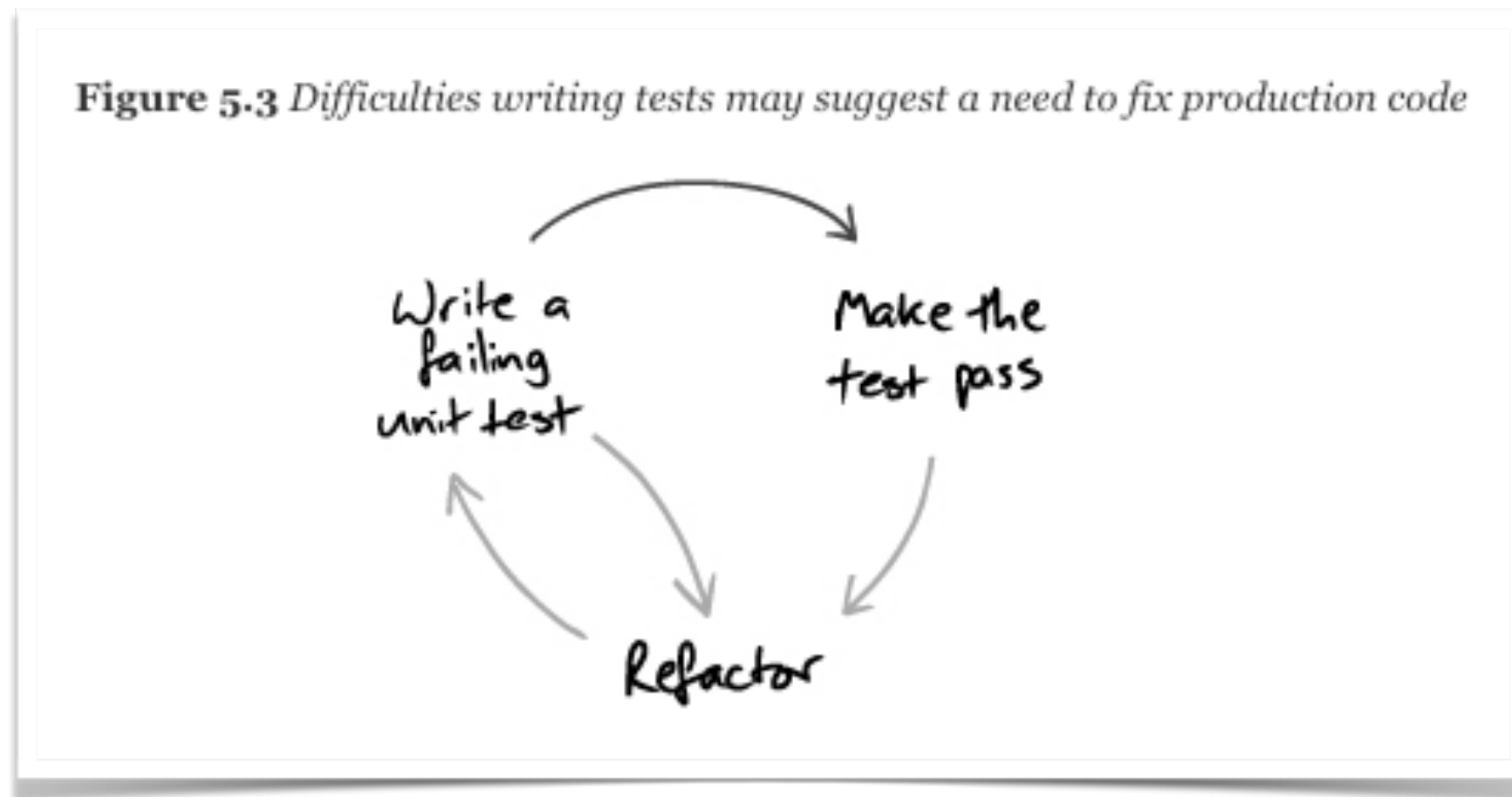
TDD CYCLE: IMPROVE FAILING REPORTS

Figure 5.2 *Improving the diagnostics as part of the TDD cycle*



Source: **Growing Object-Oriented Software, Guided by Tests**
by Steve Freeman, Nat Pryce

TDD CYCLE: REFACTOR AFTER TEST



Source: **Growing Object-Oriented Software, Guided by Tests**
by Steve Freeman, Nat Pryce

TDD STYLES

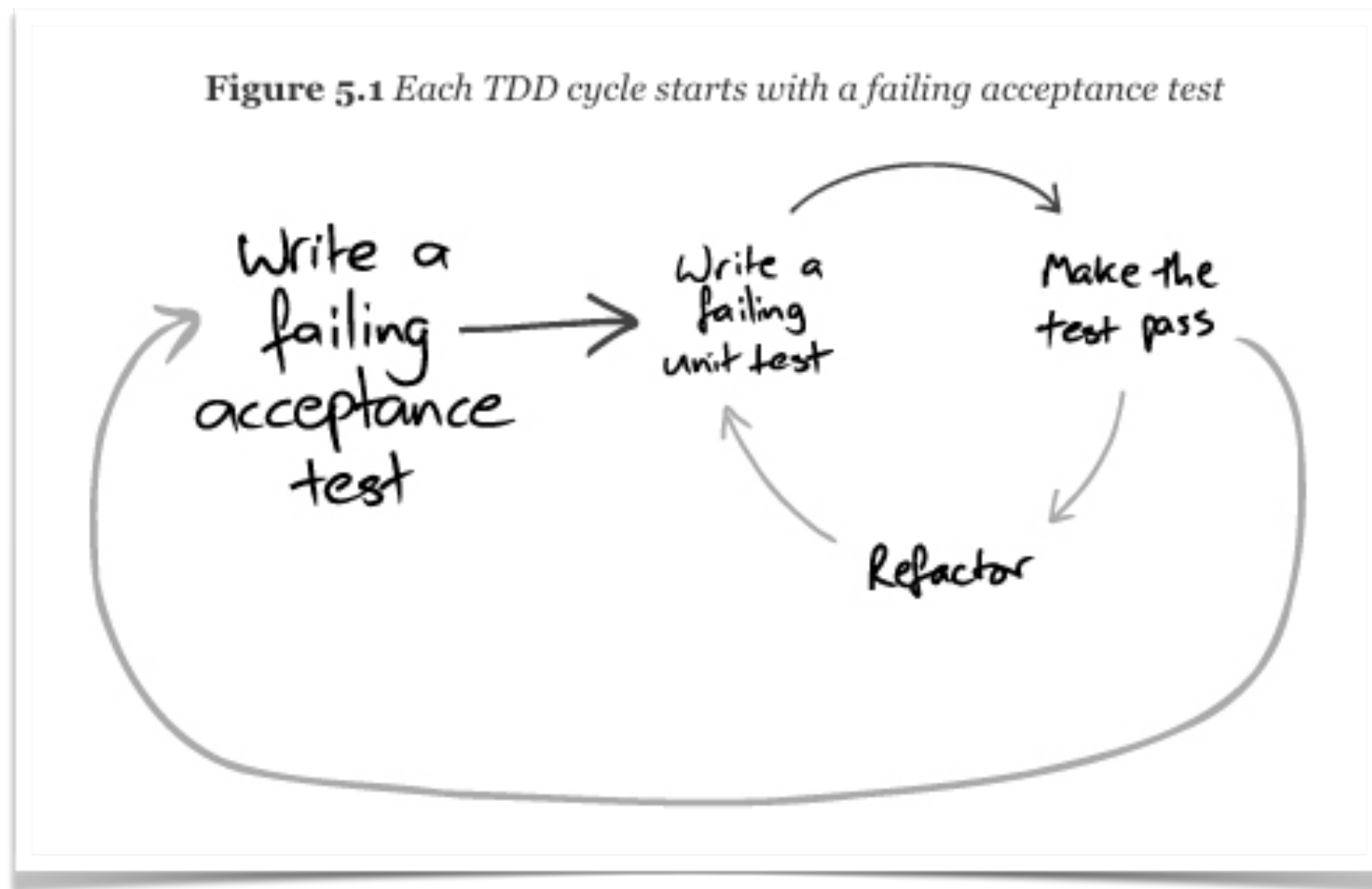
Chicago style, a.k.a. “classic”

Mostly inside-out: from unit tests to acceptance tests

London style, a.k.a. “mockist”

Mostly outside-in: from acceptance tests to unit tests

TDD CYCLES: MOCKIST STYLE



Source: **Growing Object-Oriented Software, Guided by Tests**
by Steve Freeman, Nat Pryce

TDD BEST-PRACTICE FOR PAIRING: CALL SHOT

HUGO FALA

Uma técnica divertida e muito útil quando se está usando TDD é a de, antes de rodar o teste, narrar o resultado esperado. Algo como:

- Espero que este teste falhe com uma exceção que diz que o método `maior_valor` não existe.
- Agora espero que o teste falhe dizendo que esperava 250 mas devolveu `nil`.
- Agora o teste vai passar.

Apesar de o exercício parecer fútil, falar em voz alta o resultado que esperamos nos ajuda a tomar consciência do nosso erro quando o resultado não bater. Também torna a prática de programação em pares mais divertida e garante que ambas as pessoas no par estejam acompanhando uma a outra. Nesse caso, a pessoa que não escreveu o teste é a que precisa prever o que vai acontecer.

A photograph of three people in a workshop or office environment, overlaid with a semi-transparent green filter. On the left, a woman with glasses and a scarf looks down. In the center, a man in a hoodie is writing on a piece of paper. On the right, a man is smiling while looking at a laptop. The background is filled with papers and sticky notes.

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CODING DOJO

Let's practice

CODING DOJO STYLES

Randori

Pairs of pilot and co-pilot alternate in 7-minute intervals

Prepared kata

Experienced coder demonstrates via live coding

Work on small increments

Like 4L on 4WD: no need to engage at all times, but good when the going is tough

At first: practice with the smallest increments you can think



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TOOLS

Libraries and utilities for TDD in Go

GO LIBRARIES FOR TESTING

Go testing libraries with most Github stars

5251	stretchr/testify
3685	smartystreets/goconvey
2166	onsi/ginkgo
1452	golang/mock
902	DATA-DOG/go-sqlmock
884	gaww/httpexpect
709	onsi/gomega
575	google/go-cmp
512	franela/goblin
502	h2non/baloo
496	h2non/gock
404	DATA-DOG/godog
387	go-check/check

A photograph of three people in a meeting, overlaid with a green tint. A woman on the left is pointing at a document. A man in the center is leaning over a table, writing on a piece of paper. A man on the right is sitting at a desk with a laptop, smiling. The background shows a wall with many sticky notes.

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REFERENCES

Where to learn more

REFERENCES



MORE REFERENCES

Books

Kent Beck: **Test Driven Development: By Example** <https://tgo.li/2NvBfcX>

Steve Freeman, Nat Pryce:

Growing Object-Oriented Software, Guided by Tests <https://tgo.li/2tV8QoK>

Posts | Videos

Martin Fowler: **Mocks Aren't Stubs** <https://tgo.li/2IUqTXv>

Martin Fowler: **Is TDD Dead?** <https://tgo.li/2IWOAYn>

Michael Feathers , Steve Freeman:

Test Driven Development: Ten Years Later <https://tgo.li/2KD2Gnm>

Stanislav Pankevich:

Notes on "TDD by Example" by Kent Beck <https://tgo.li/2ufKWDN>

THANK YOU

Let's connect!

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ANOTHER WAY TO DO A BIG TITLE OR SECTION DIVIDER

Add a subhead if you want.



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FULL BLEED PHOTO WITH TEXT OVERLAY

Place the text wherever the photo subjects dictates. You can delete this subhead and the keyline above.



ThoughtWorks®

FULL BLEED PHOTO WITH TEXT OVERLAY

Place the text wherever the photo subjects dictates. You can delete this subhead and the keyline above.



UNTINTED PHOTO

Use with caution

YOUR BASIC, HARD-WORKING CONTENT SLIDE

A content headline

Did you know hitting tab at the beginning of a line demotes it from a headline (default) to body copy (what you see here)?

Shift-tab makes a headline again.

And back down to body by hitting tab again.

- Tab one more time to start bullets
- Enter begins the next bullet
 - Tab again for sub-bullets
 - And again for tiny bullets

A content headline

Did you know hitting tab at the beginning of a line demotes it from a headline (default) to body copy (what you see here)?

Shift-tab makes a headline again.

And back down to body by hitting tab again.

- Tab one more time to start bullets
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 - Tab again for sub-bullets

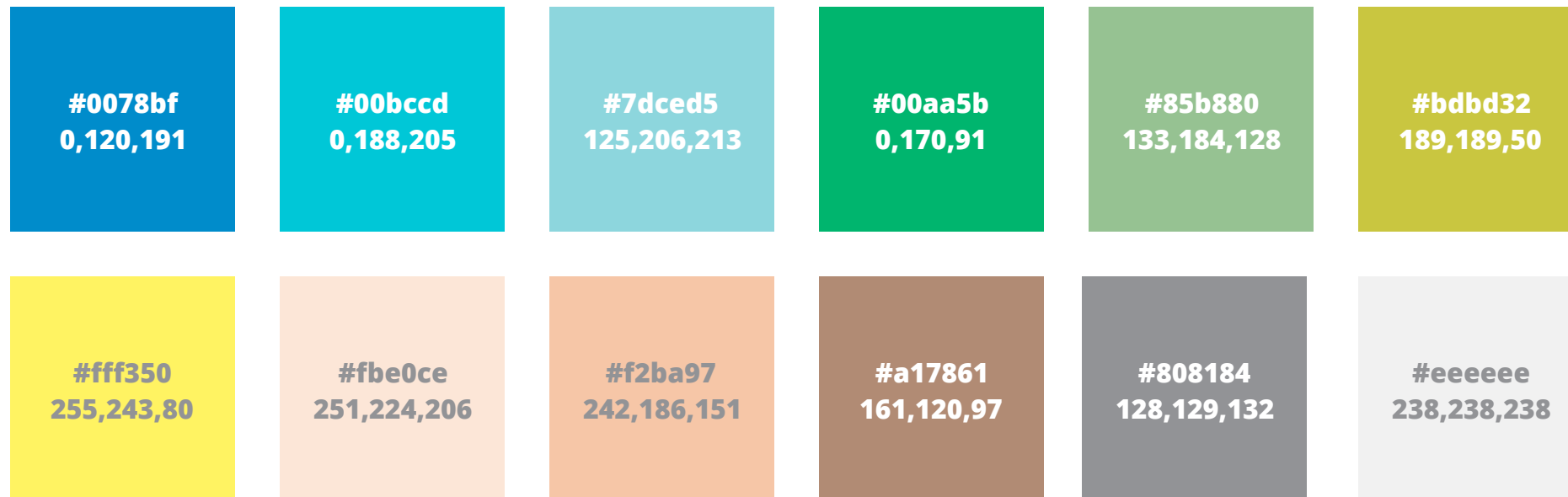
Sometimes you need a blank template.

Sometimes you want to say something simply and boldly on a dedicated slide. This template is called the “quote”.

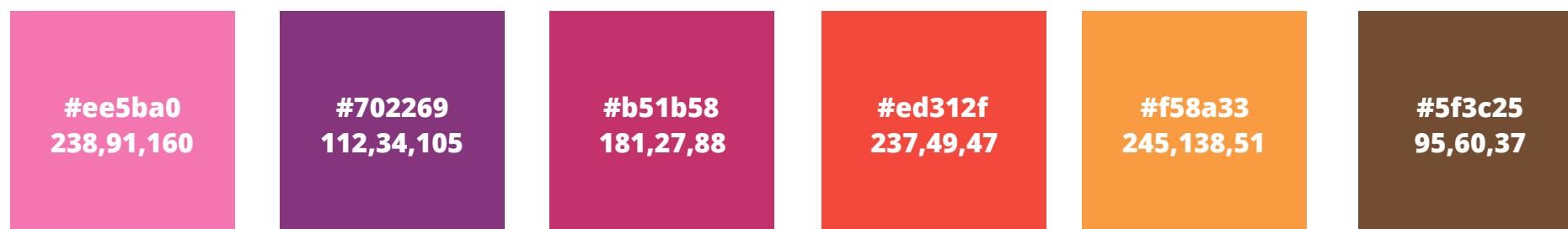
BLANK PAGE WITH A TITLE

COLOR-PALETTE

Safe on Projectors



Risky on Projectors



BOXES, SHAPES AND TABLES

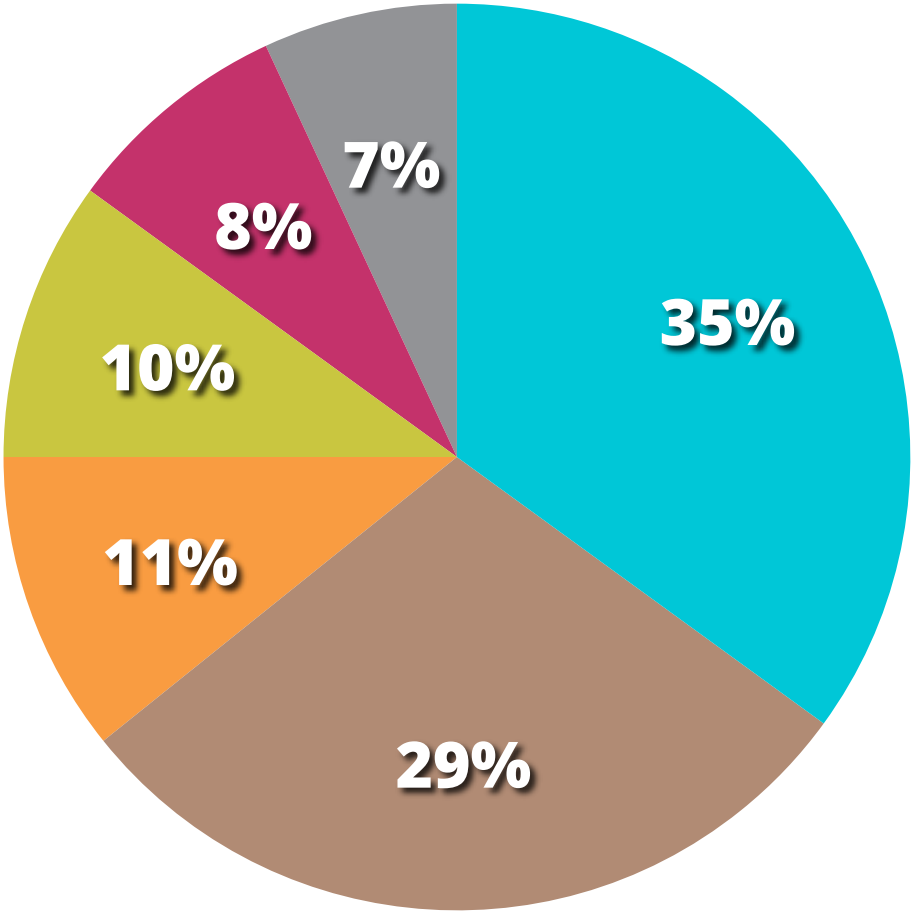
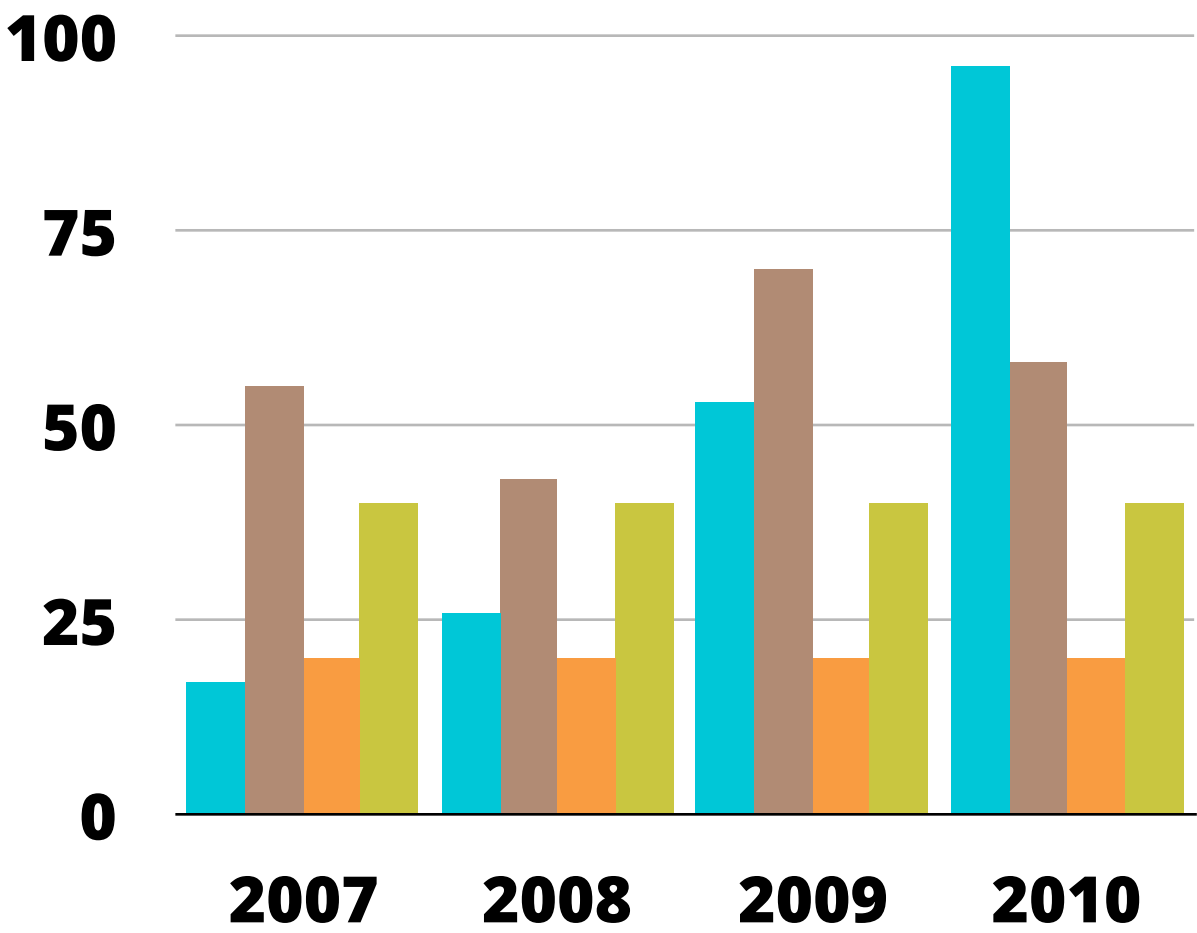
By default, a floating text box looks like this

Shapes are tinted gray, with lots of padding.

Works for any shape

	Header rows ...	are black.
Header columns ...	If you insert a table ...	it should automatically ...
are gray.	pick up this style.	Enjoy.

CHARTS



PARTING THOUGHTS (USING THE CHECKLIST TEMPLATE)

- ❑ First, get the proper font: <http://opensans.com/>
- ❑ Start with a clean template.
- ❑ When in doubt, copy and paste from something that already works.
- ❑ Be brave:
 - ❑ Learn to use master pages properly.
 - ❑ Edit! Brevity, not design, makes presentations great.

DON'T MISS MASTER SLIDES IN OTHER COLORS

- ☐ Black
- ☐ Blue
- ☐ Khaki
- ☐ Magenta
- ☐ Orange
- ☐ Green
- ☐ Pink

THANK YOU

For questions or suggestions:

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