goto;

GOTO
Copenhagen 2022

#GOTOcph

How to Stop Testing

…and break your code base

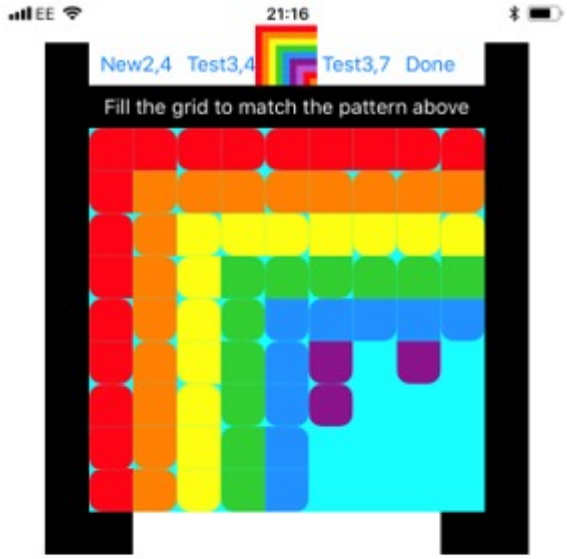
@ClareSudbery

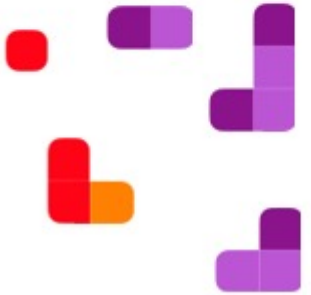
My name is
Clare and I am
a bad person...
@ClareSudbery

@ClareSudbery

@ClareSudbery

SquareFill





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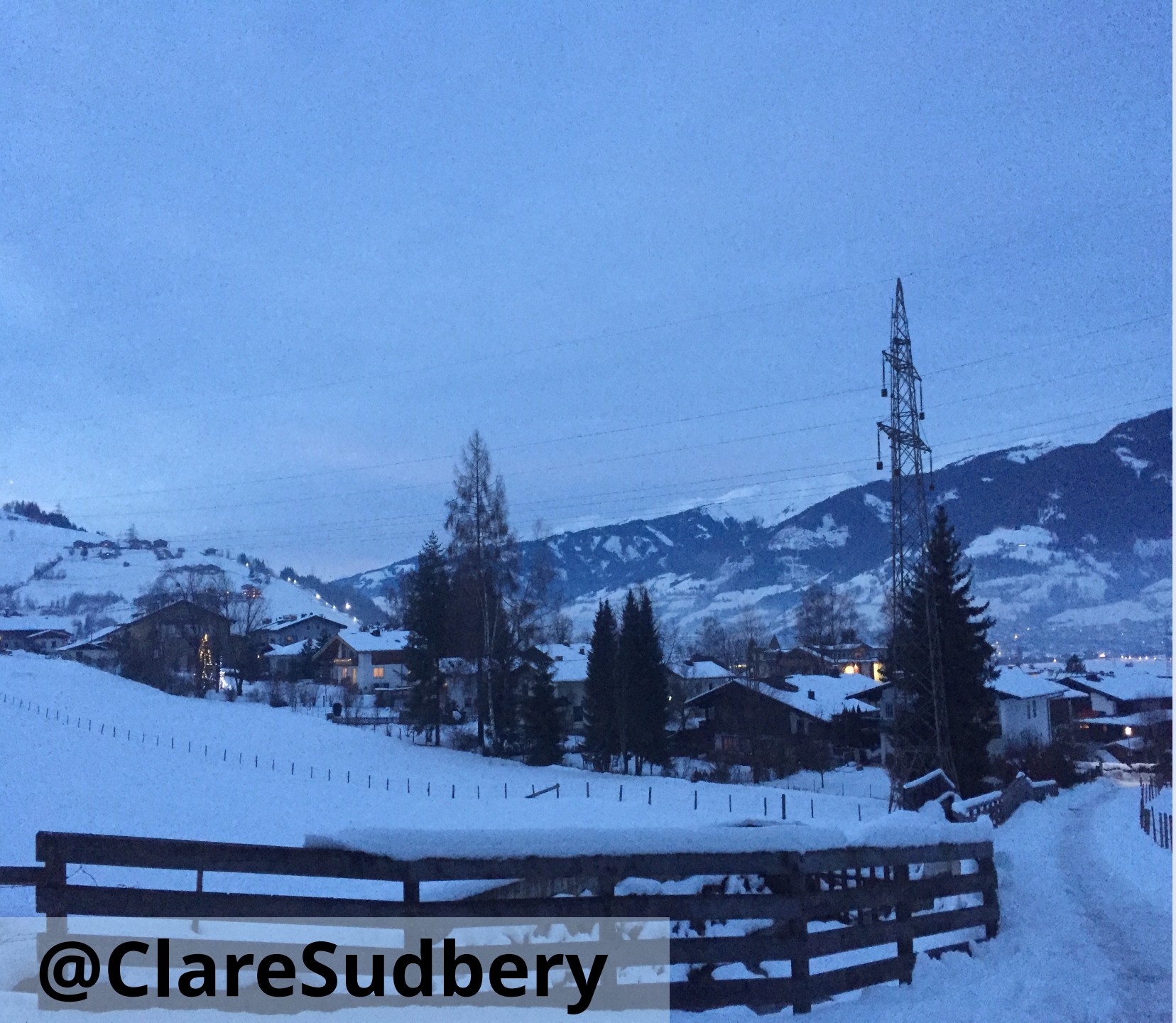
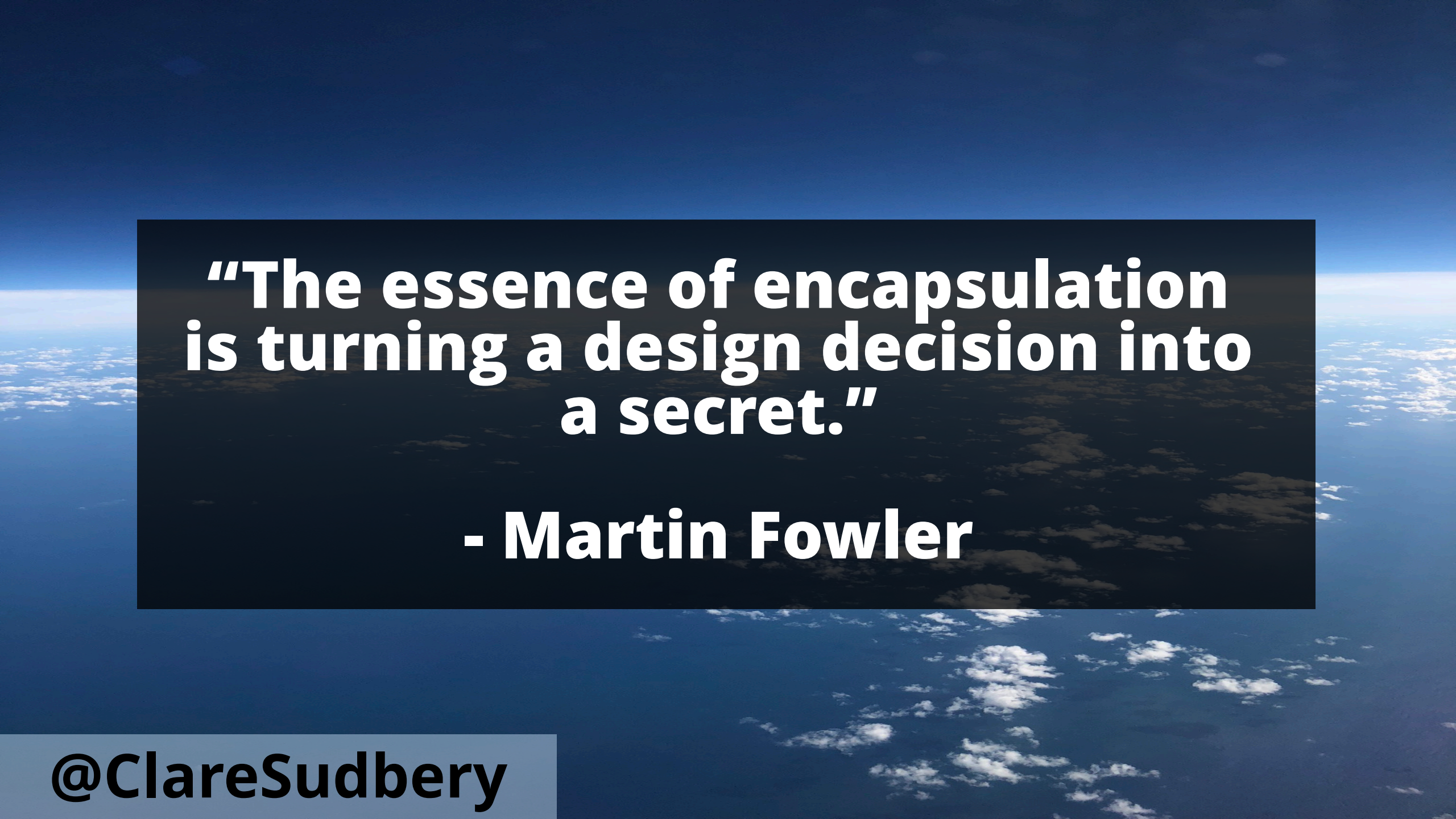
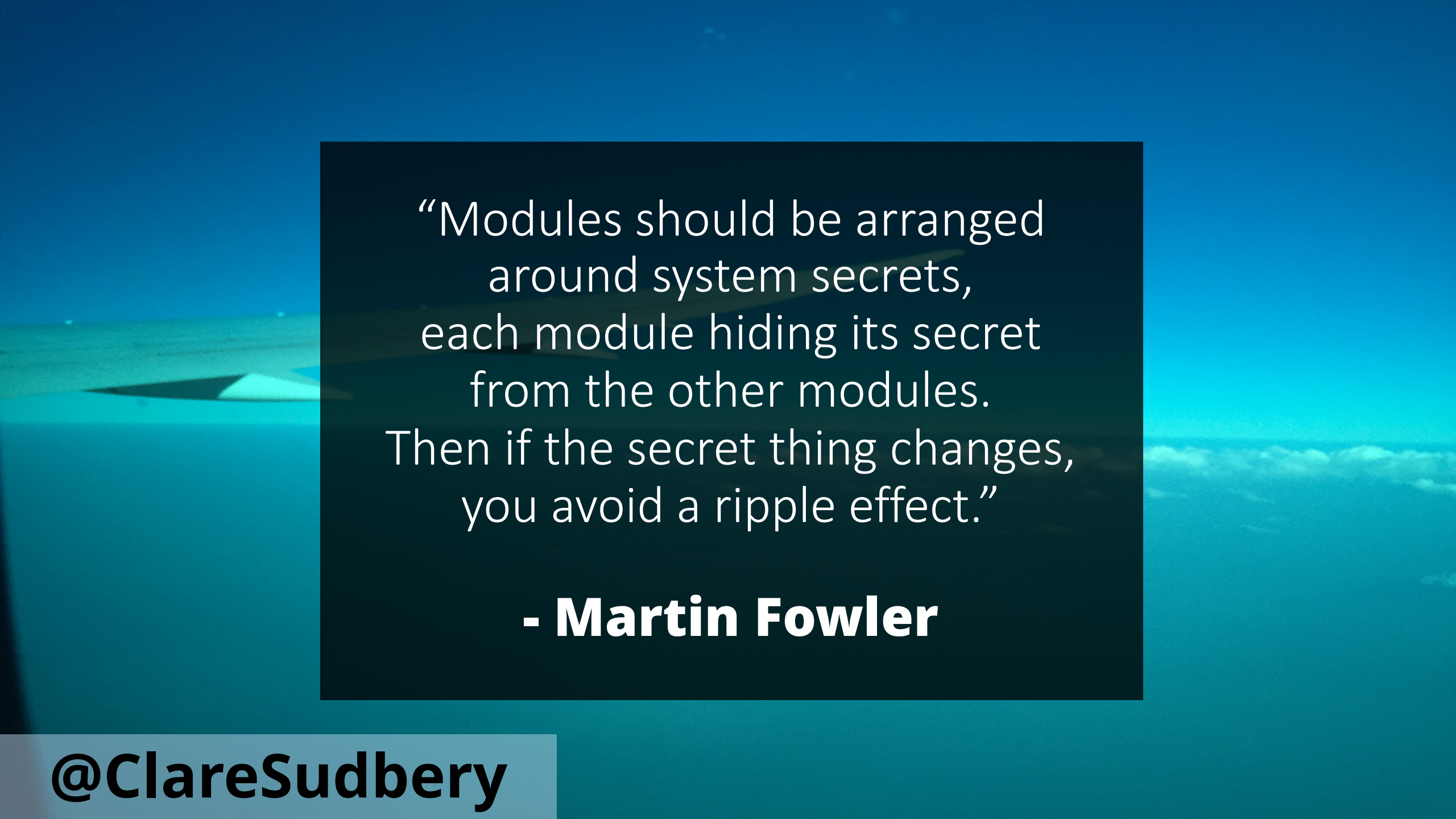


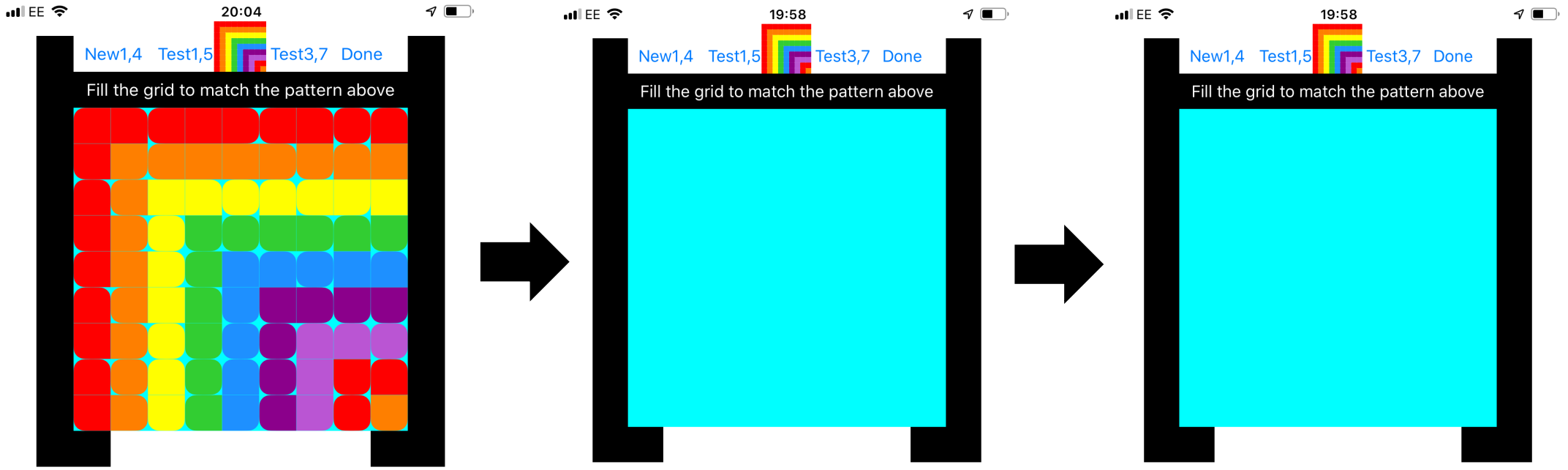
A lack of tests causes PAIN

- Encapsulation
- SRP (Single Responsibility)
- Public vs private
- Debugging
- Refactoring
- Fast feedback
- Edge cases
- Productionising spikes

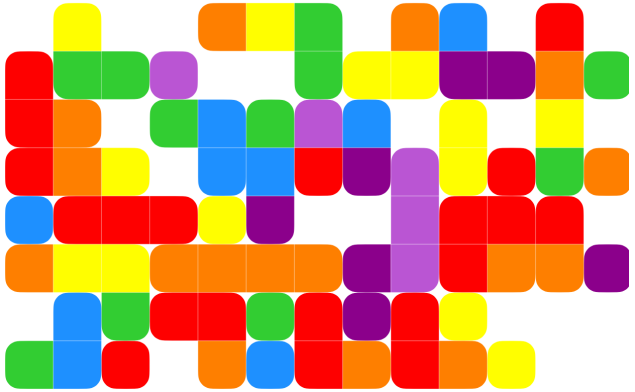

“The essence of encapsulation is turning a design decision into a secret.”
- Martin Fowler
@ClareSudbery


“Modules should be arranged
around system secrets,
each module hiding its secret
from the other modules.
Then if the secret thing changes,
you avoid a ripple effect.”
- Martin Fowler
@ClareSudbery

ACCEPTANCE TESTS and ENCAPSULATION



GameGenerator.ShuffleShapes



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A lack of tests causes PAIN

- ~~Encapsulation~~
- SRP (Single Responsibility)

@ClareSudbery

Single Responsibility Principle
@ClareSudbery

A lack of tests causes PAIN

- ~~Encapsulation~~
- ~~SRP (Single Responsibility)~~
- Public vs private

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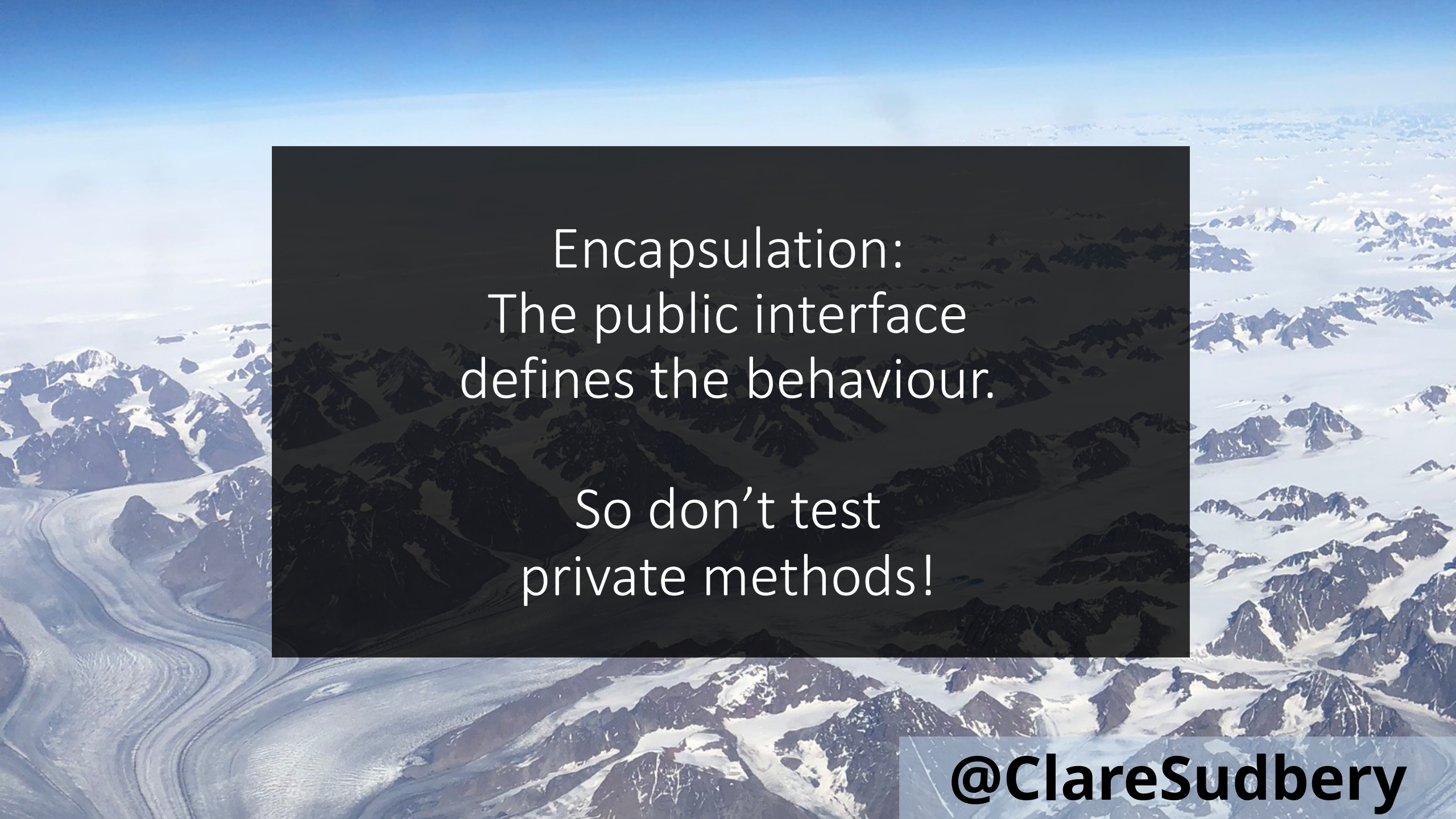
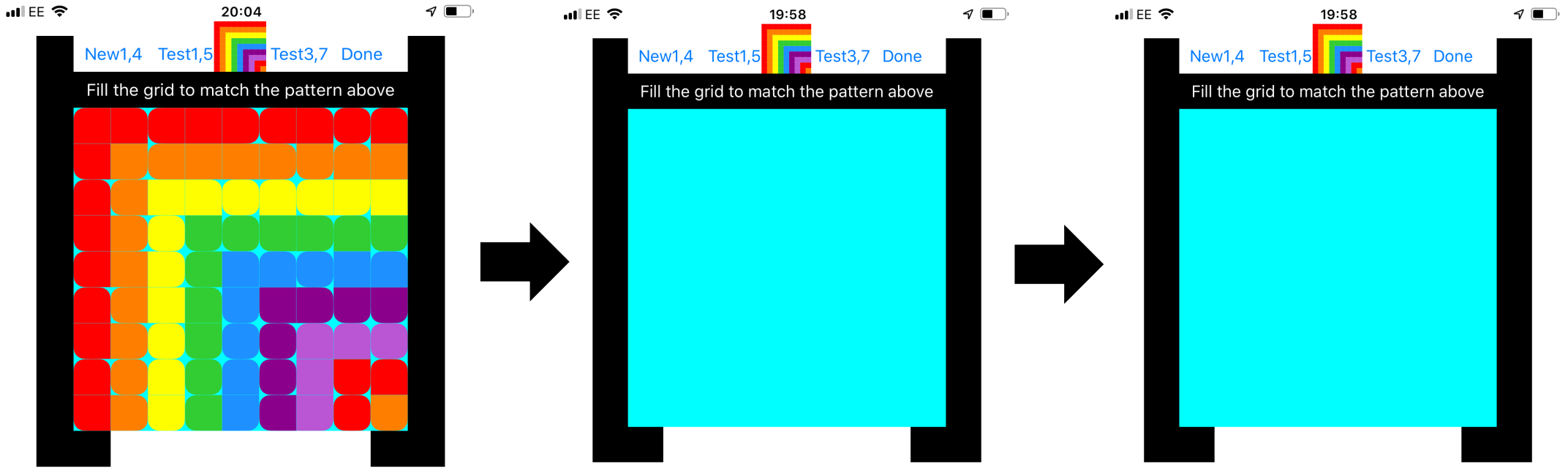

Encapsulation:
The public interface
defines the behaviour.
So don’t test
private methods!
@ClareSudbery

A lack of tests causes PAIN

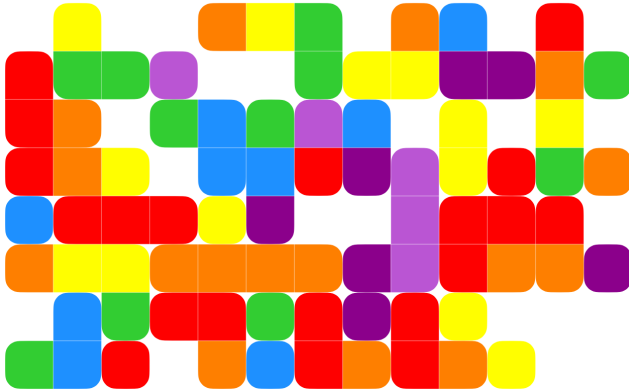
- ~~Encapsulation~~
- ~~SRP (Single Responsibility)~~
- ~~Public vs private~~
- Debugging

@ClareSudbery

ACCEPTANCE TESTS ONLY = POOR DEBUGGING



GameGenerator.ShuffleShapes



@ClareSudbery

A lack of tests causes PAIN

- ~~Encapsulation~~
- ~~SRP (Single Responsibility)~~
- ~~Public vs private~~
- ~~Debugging~~
- Refactoring

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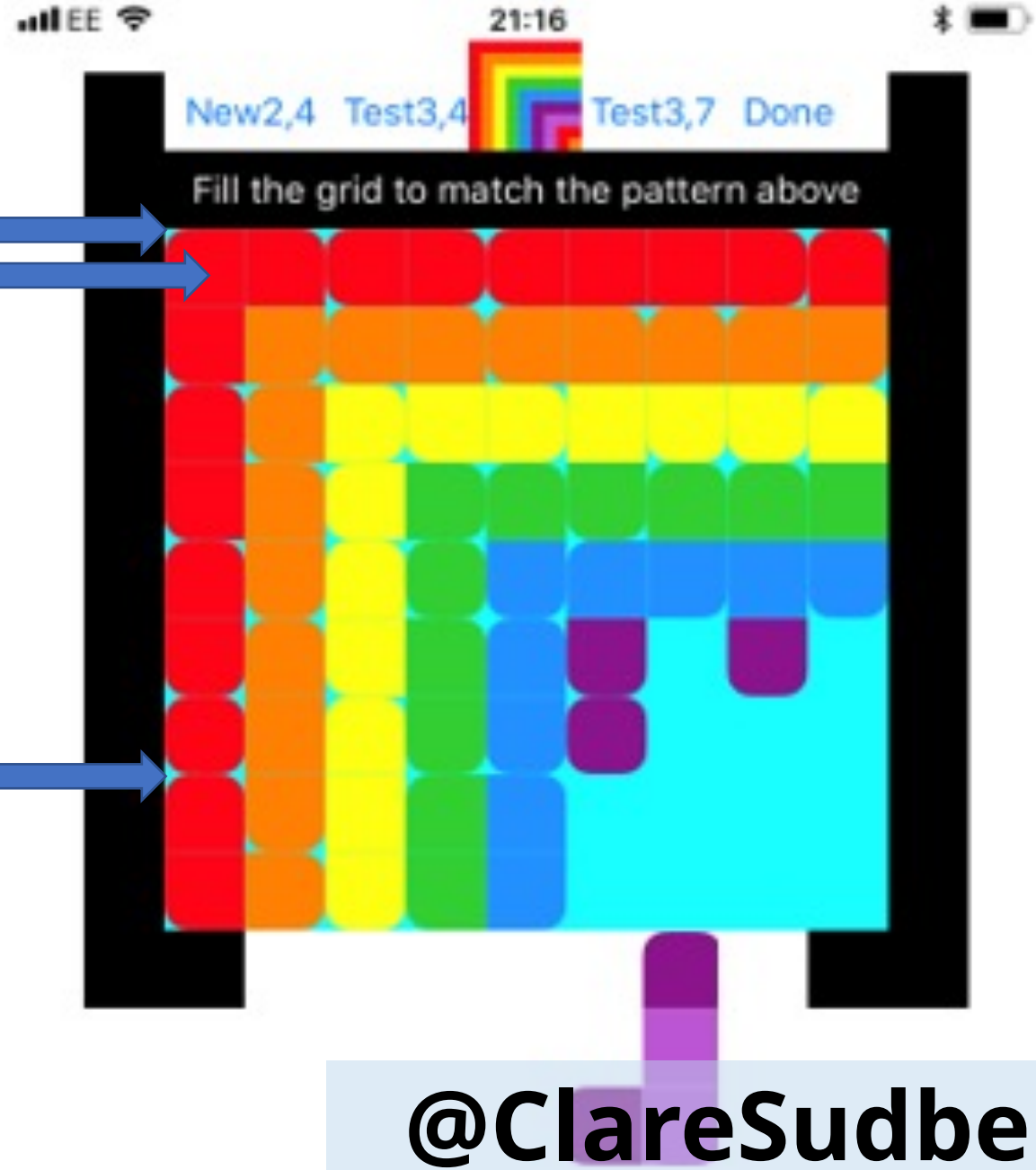
CAN’T REFACTOR

Is (0, 0) the top left corner or the top left square?

Is this pointing at (0, 6) or (0, 192)?



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A lack of tests causes PAIN

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- ~~SRP (Single Responsibility)~~
- ~~Public vs private~~
- ~~Debugging~~
- ~~Refactoring~~
- Fast feedback

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NO FAST FEEDBACK
@ClareSudbery

A lack of tests causes PAIN

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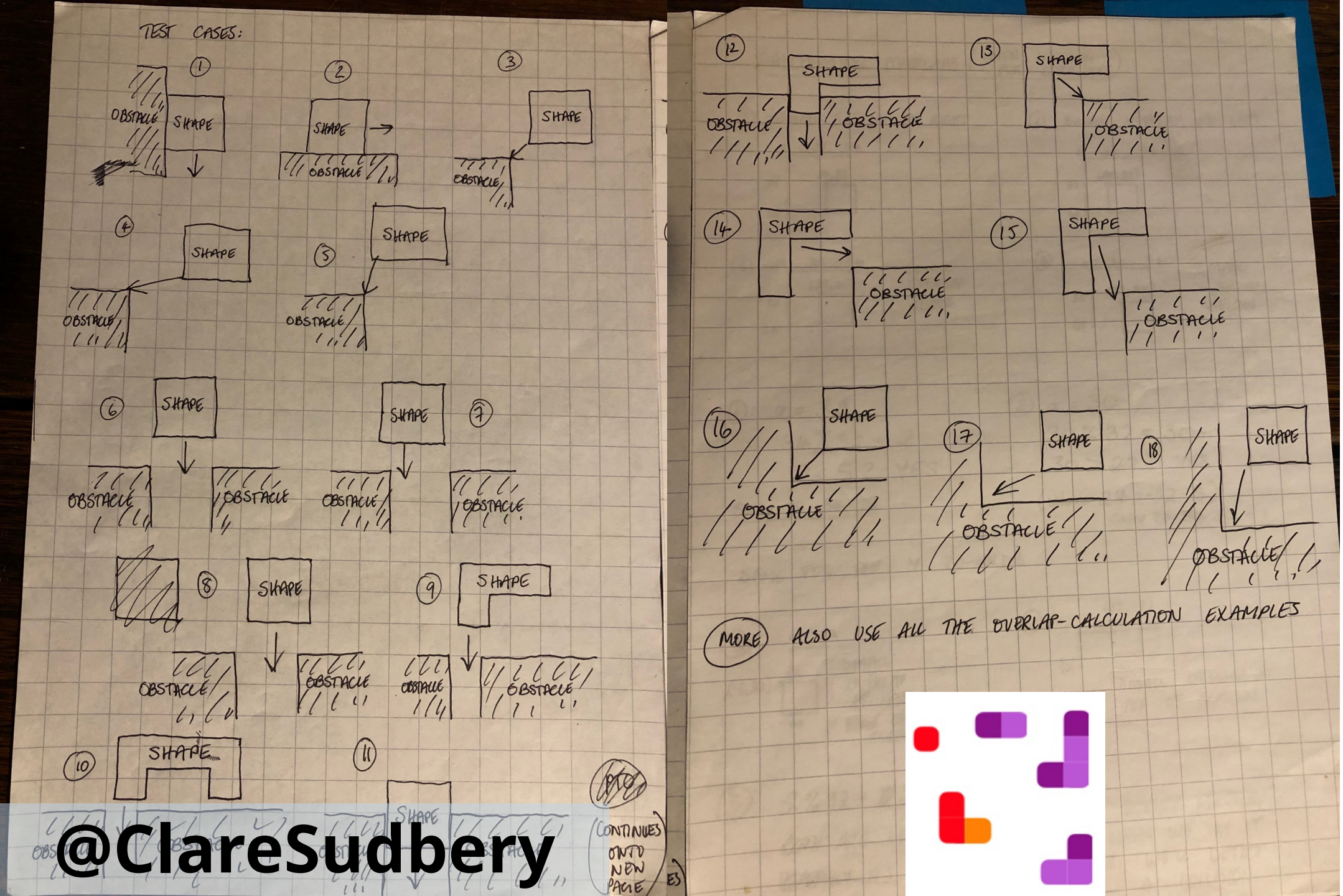
- ~~Refactoring~~
- ~~Fast feedback~~
- Edge cases

@ClareSudbery



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CAN'T SEE EDGE CASES

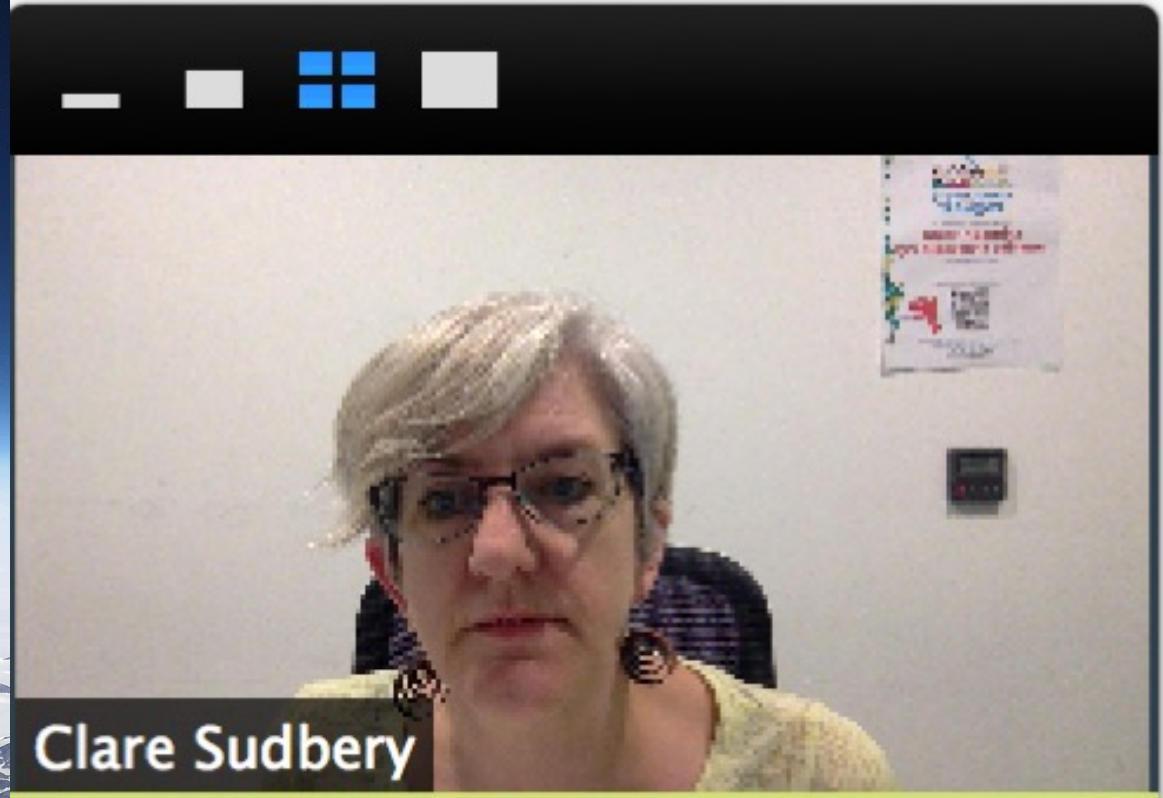
A lack of tests causes PAIN

- ~~Encapsulation~~
- ~~SRP (Single Responsibility)~~
- ~~Public vs private~~
- ~~Debugging~~
- ~~Refactoring~~
- ~~Fast feedback~~
- ~~Edge cases~~
- Productionising spikes

Can't productionise spikes

@ClareSudbery

PATH TO A SOLUTION



@ClareSudbery

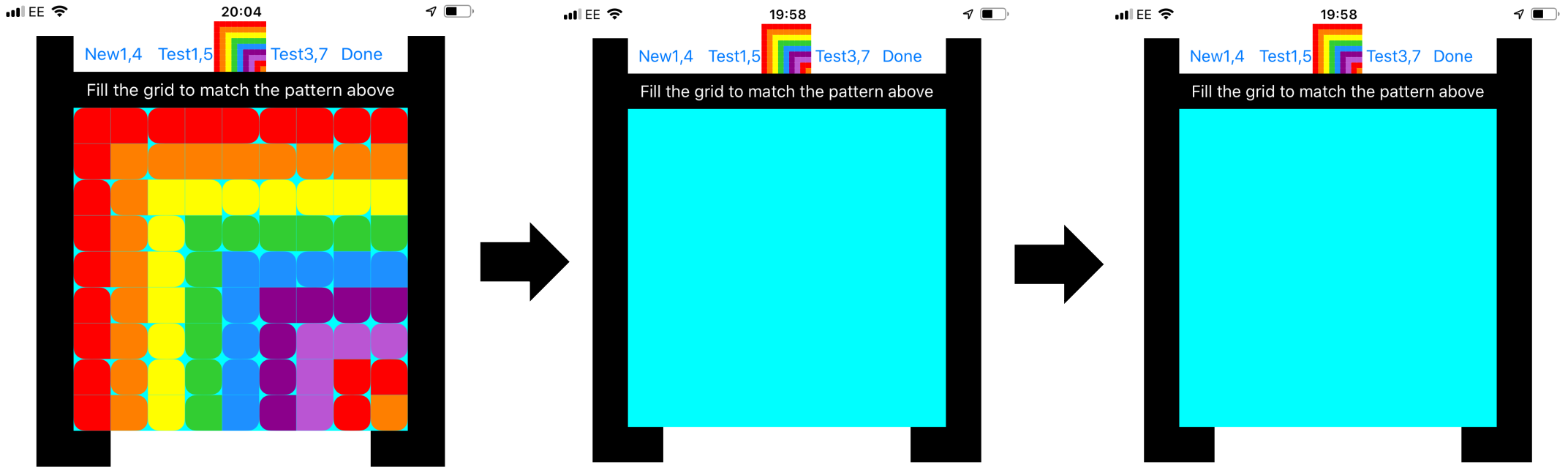
@ClareSudbery

TDD makes everything better!

- Encapsulation
- SRP (Single Responsibility)
- Public vs private

@ClareSudbery

ENCAPSULATION, SRP, PUB/PRIVATE



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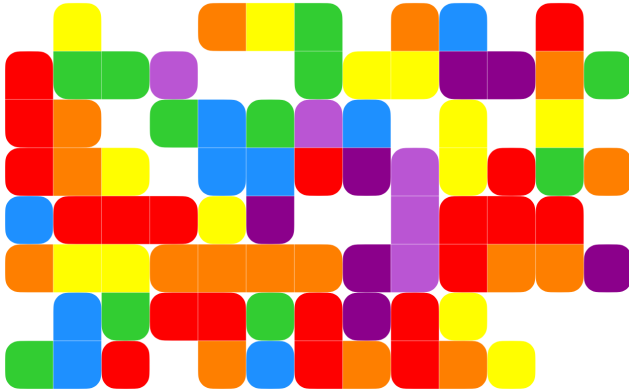

@ClareSudbery

TDD makes everything better!

- ~~Encapsulation~~
- ~~SRP (Single Responsibility)~~
- ~~Public vs private~~
- Debugging

@ClareSudbery

DEBUGGING

@ClareSudbery

TDD makes everything better!

- ~~Encapsulation~~
- ~~SRP (Single Responsibility)~~
- ~~Public vs private~~
- ~~Debugging~~
- Refactoring

@ClareSudbery

REFACTORING
@ClareSudbery

REFACTORING:
It's better
to break encapsulation principles
to get tests in place,
than it is
to break testing principles
to keep encapsulation in place.
@ClareSudbery

TDD makes everything better!

- ~~Encapsulation~~
- ~~SRP (Single Responsibility)~~
- ~~Public vs private~~
- ~~Debugging~~
- ~~Refactoring~~
- Fast feedback

@ClareSudbery

FAST FEEDBACK
@ClareSudbery

FAST FEEDBACK: Don't wait for the race-track to test the car

@ClareSudbery

...but skeleton cars
can often be driven
@ClareSudbery

TDD makes everything better!

- ~~Encapsulation~~
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- ~~Debugging~~
- ~~Refactoring~~
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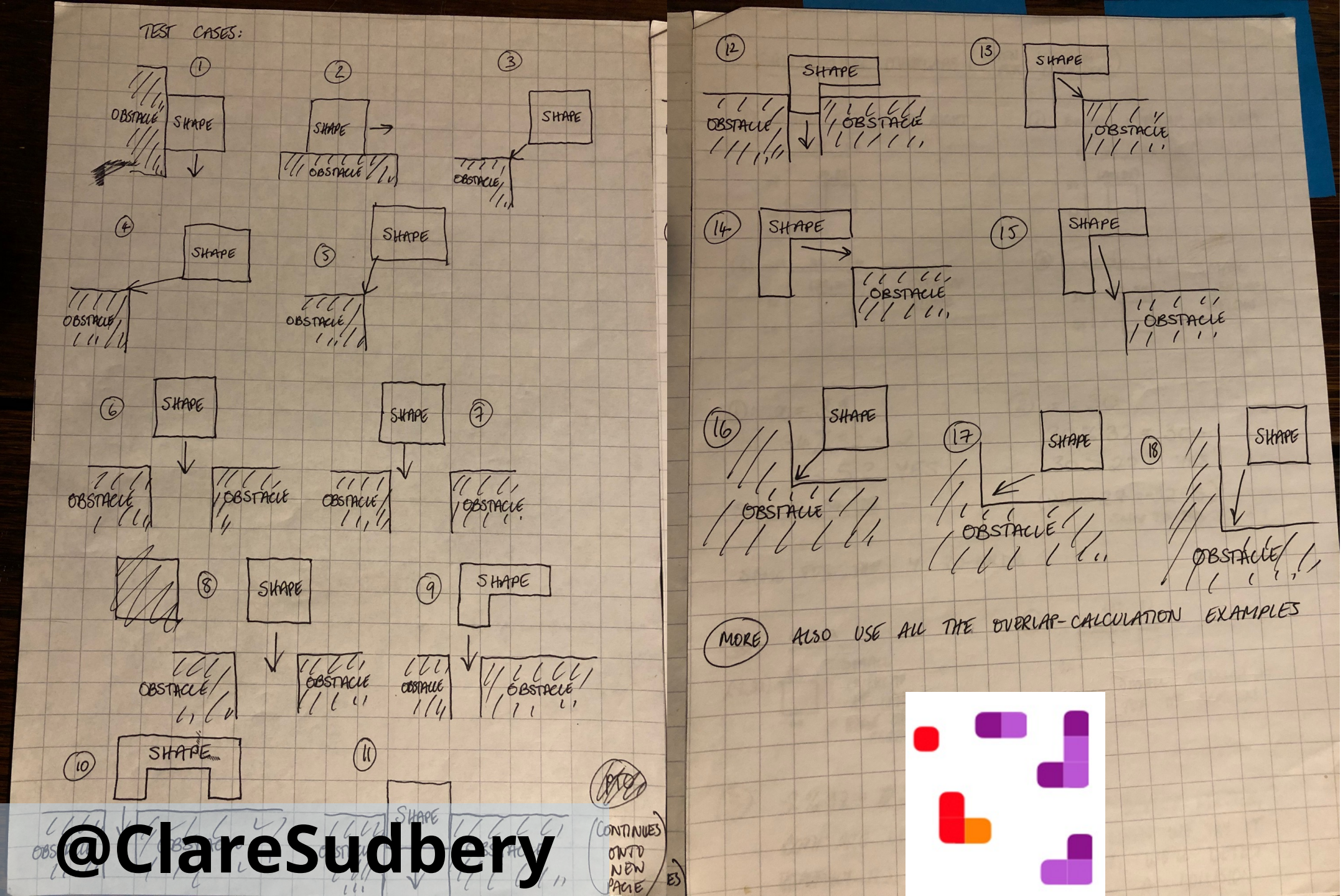
@ClareSudbery



DRAW OUT EDGE CASES

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TDD makes everything better!

- ~~Encapsulation~~
- ~~SRP (Single Responsibility)~~
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- ~~Debugging~~
- ~~Refactoring~~
- ~~Fast feedback~~
- ~~Edge cases~~
- Productionising spikes

Write tests for spikes

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ADVICE +
CONCLUSIONS
@ClareSudbery

@ClareSudbery

@ClareSudbery

@ClareSudbery

- No tests = false economy
- Not running tests = false economy
- Tests facilitate refactors
- Tests before refactoring
- Acceptance = not enough
- Write new tests in response to new problems
- Keep everything green
- Pairing keeps you honest
- (3 more slides)

@ClareSudbery

I hosted a podcast …

tinyurl.com/making-tech-better

@ClareSudbery

Relevant podcast episodes...

Test Driven Development: tinyurl.com/mtb-geepaw-hill
Refactoring: tinyurl.com/mtb-emily-bache
Coding for fun: tinyurl.com/mtb-jon-skeet
When is a test not a test: tinyurl.com/mtb-dan-north
Hexagonal Architecture: tinyurl.com/mtb-ted-young

THANK YOU, and...

Sudbery Software Engineering Ltd
Twitter: @claresudbery
LinkedIn: tinyurl.com/lin-csudbery
SDD Deep Dive wi Emily Bache, 8-10 Nov ‘22
YOW! London, 29-30 Nov ‘22
Software Cornwall, May/Jun ‘23
All events: tinyurl.com/csudbery-events

(NEXT SLIDE)

goto;

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