Test-Driven Development with Vue.js

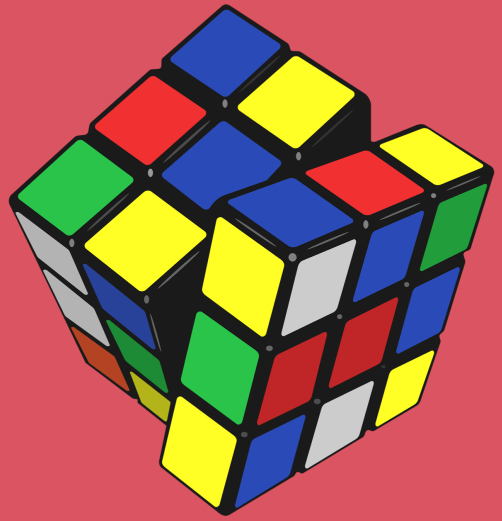
VueConfTO 2019

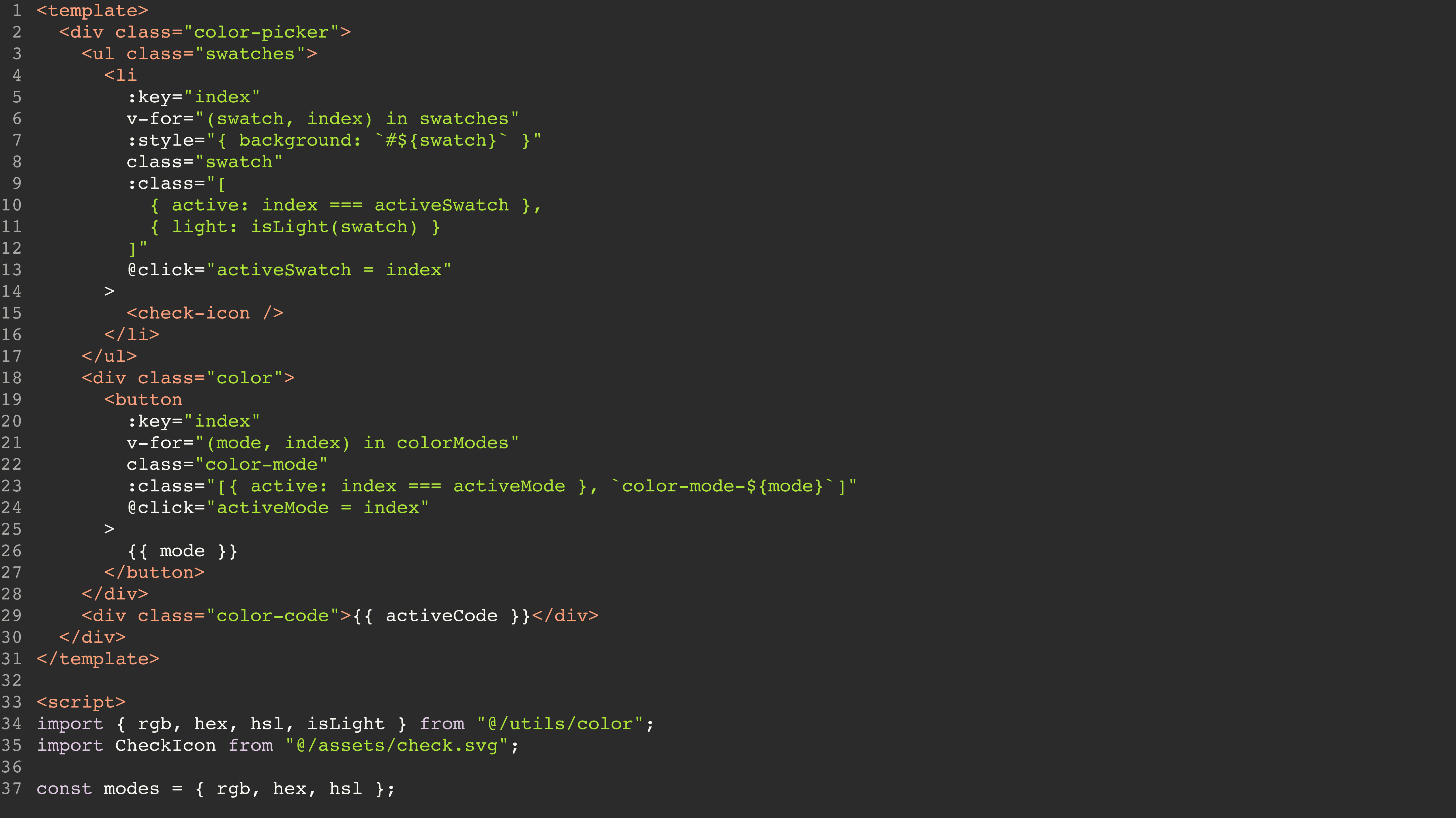
Testing is one of the pillars of writing robust software.

Tests should give you confidence that you aren’t shipping broken software.

But… testing can be tough.

Especially with UI components.





```
<template>
  <div class="color-picker">
    <ul class="swatches">
      <li
        :key="index"
        v-for="(swatch, index) in swatches"
        :style="{ background: `#${swatch}` }"
        class="swatch"
        :class="[
          { active: index === activeSwatch },
          { light: isLight(swatch) }
        ]"
        @click="activeSwatch = index"
      >
        <check-icon />
      </li>
    </ul>
    <div class="color">
      <button
        :key="index"
        v-for="(mode, index) in colorModes"
        class="color-mode"
        :class="[{ active: index === activeMode }, `color-mode-${mode}`]"
        @click="activeMode = index"
      >
        {{ mode }}
      </button>
    </div>
    <div class="color-code">{{ activeCode }}</div>
  </div>
</template>

<script>
import { rgb, hex, hsl, isLight } from "@/utils/color";
import CheckIcon from "@/assets/check.svg";

const modes = { rgb, hex, hsl };
```

HTML?

CSS classes?

View logic?

Event handlers?

Methods?

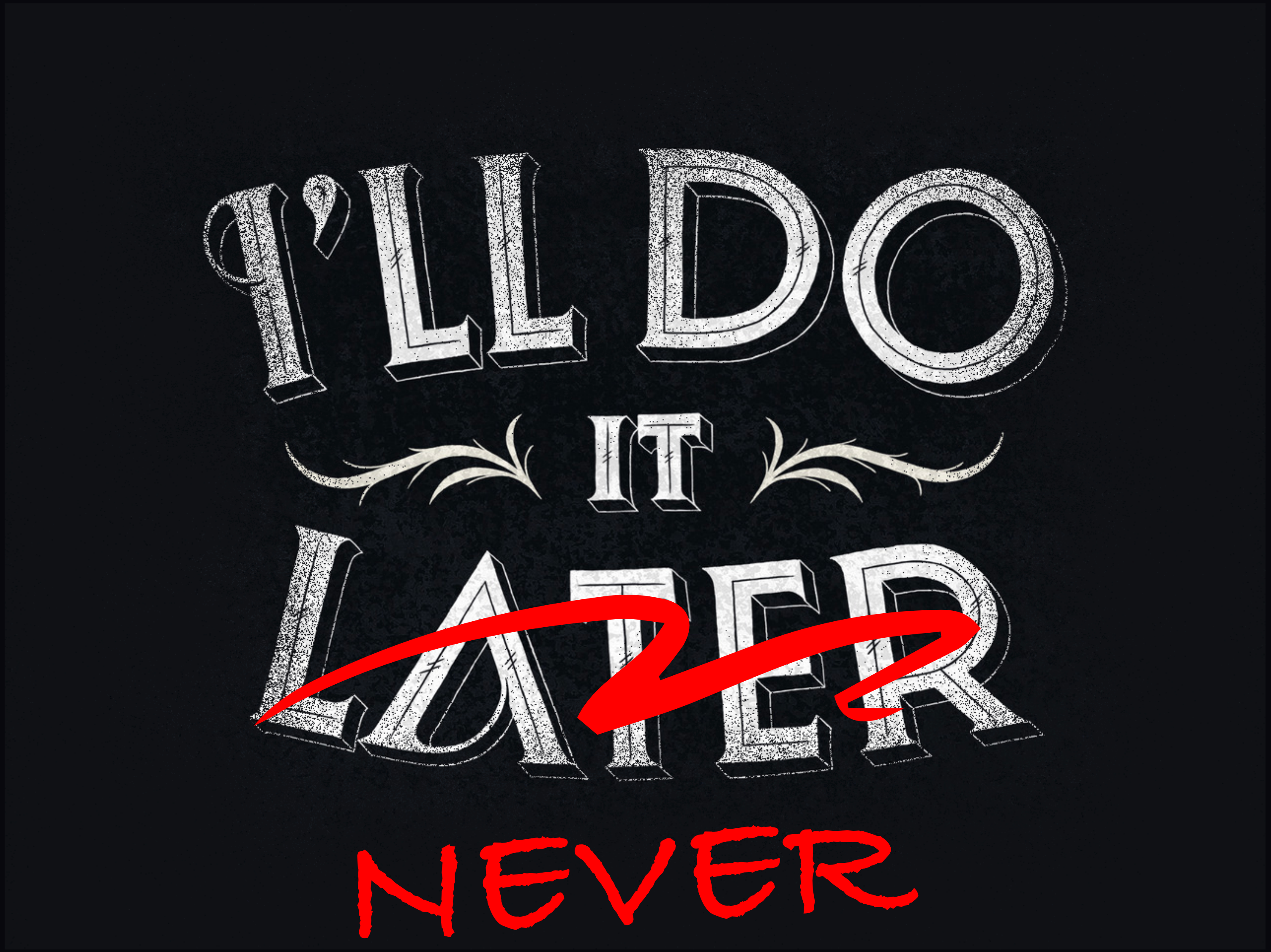
Computed properties?

Lifecycle steps?

100% coverage?

Unit vs. integration vs. e2e?

Artwork by Simon Ålander



Artwork by Simon Ålander

Test-Driven Development (TDD)

Popularized by Kent Beck

1

Red

Write a test that describes an expected behavior, then run it, ensuring it fails.

2

Green

Write the dumbest, most straightforward code you can to make the test pass.

3

Refactor

Refactor the code to make it right.

TDD ♥

What does TDD look like with Vue?

Vue Test Utils + Jest

★★☆☆☆

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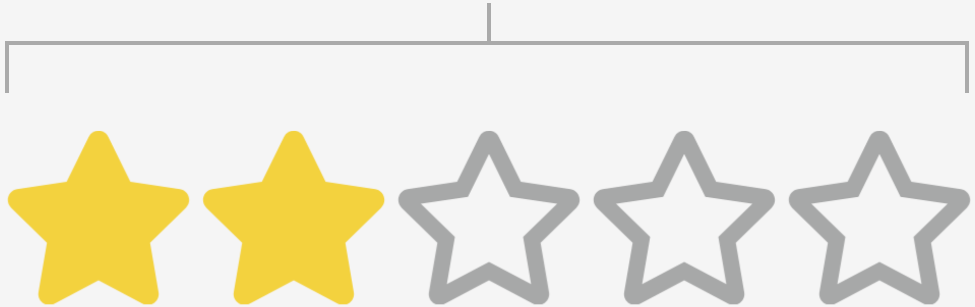
Thinking time!

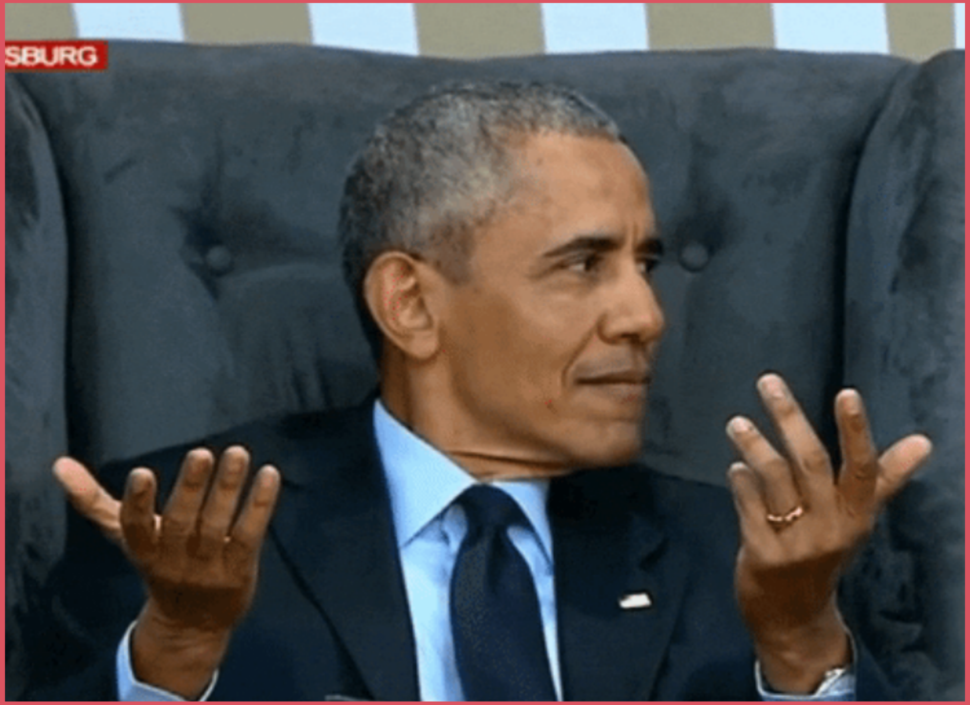


5 stars to display

2 of 5

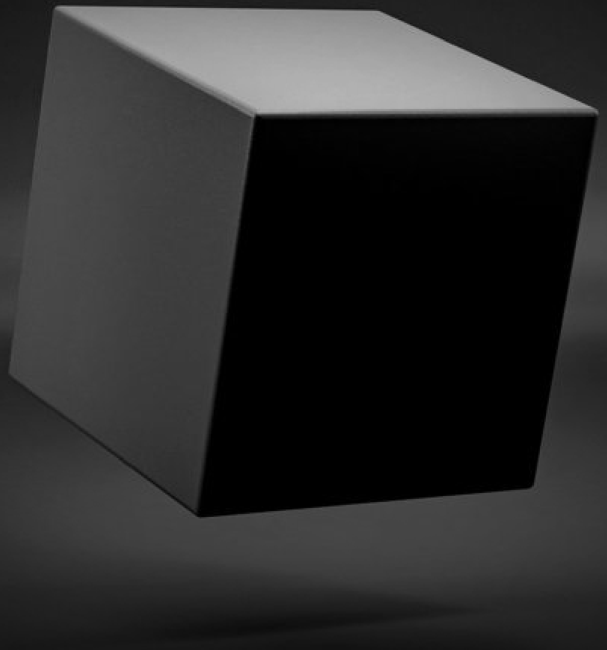
Coding time!

What exactly are we testing?



Tests should give you confidence that you aren’t shipping broken software.

Black box testing



Assert only the public interface.

Who are your users?

Final user

Developer

submit event

click event

props

With UI components,

your public interface is bigger than you think.

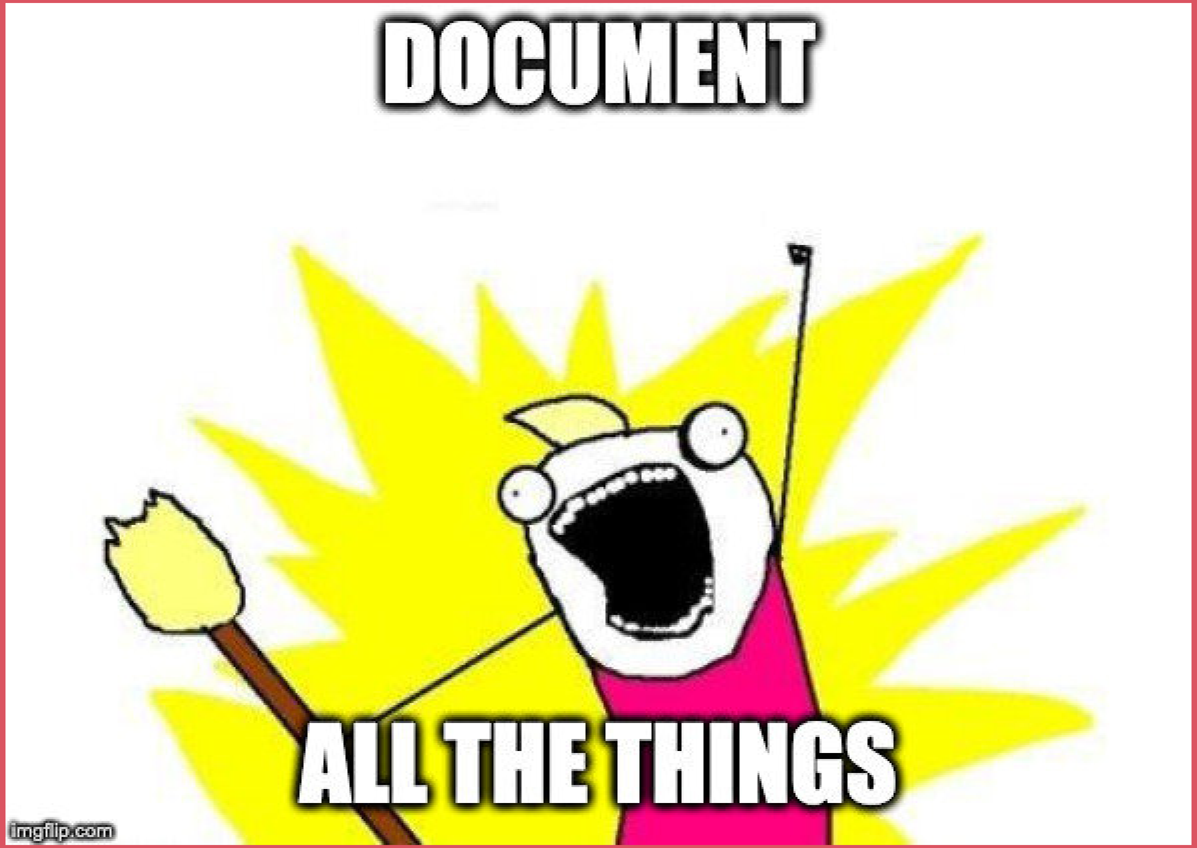
HTML

classes

scroll event

hover event

Do I care about this
if it changes?


DOCUMENT
ALL THE THINGS
imgflip.com

1

TDD lets you **write robust tests**, not too many and not too few.

2

TDD encourages refactors,
which leads to
better software design.

Your software's contract
is infinitely more important
than the way you implement it.

Don't skip the green step.

3

TDD is **much easier to follow with specs.**

But...

TDD takes

a lot of time.

So, is it worth it?

1

With practice, **you will get faster at TDD.**

2

Fixing bugs is **far more costly than preventing them.**

5

JUST
DO IT!

Thank you!

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