Awesome Web Testing with Playwright

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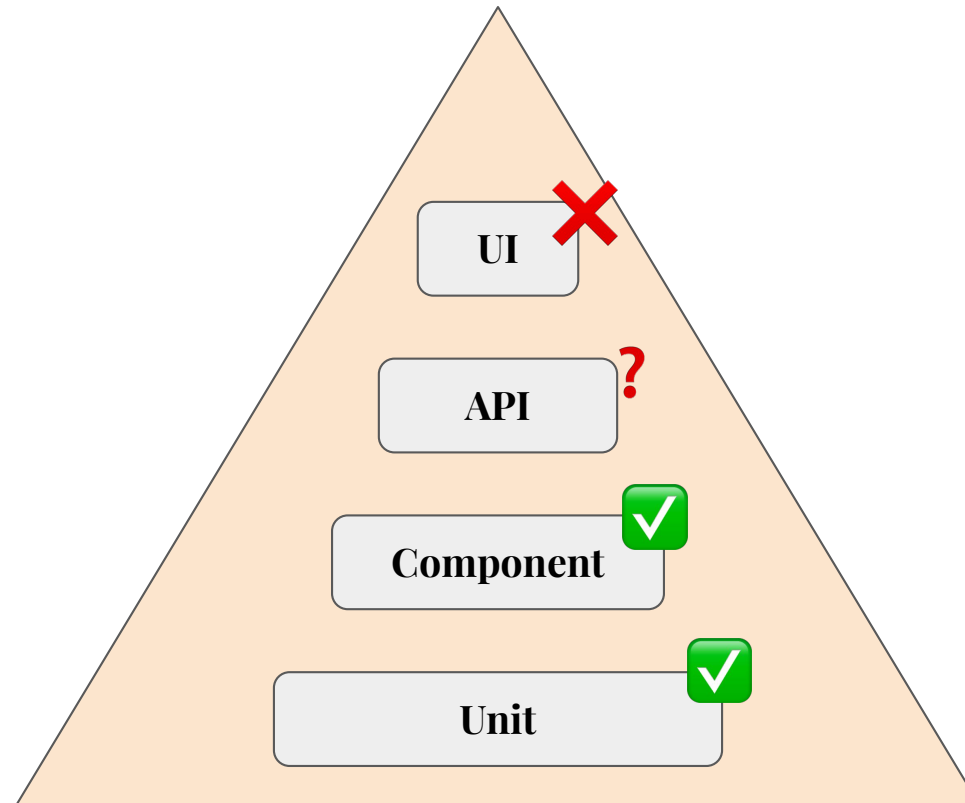# Testing challenges

Testing is HARD!

What challenges have y'all faced?

Testing challenges

- Tests are *slow*
- Tests are *brittle*
- Tests are *flaky*
- Tests don't make *sense*
- Tests don't make *money*
- Tests requires *changing context*

That Pyramid Scheme

Modern Testing Goals

1. Focus on building **fast feedback loops** rather than certain types of tests.

2. Make test development as **fast and painless** as possible.

3. Choose test tooling that naturally **complements dev workflows**.
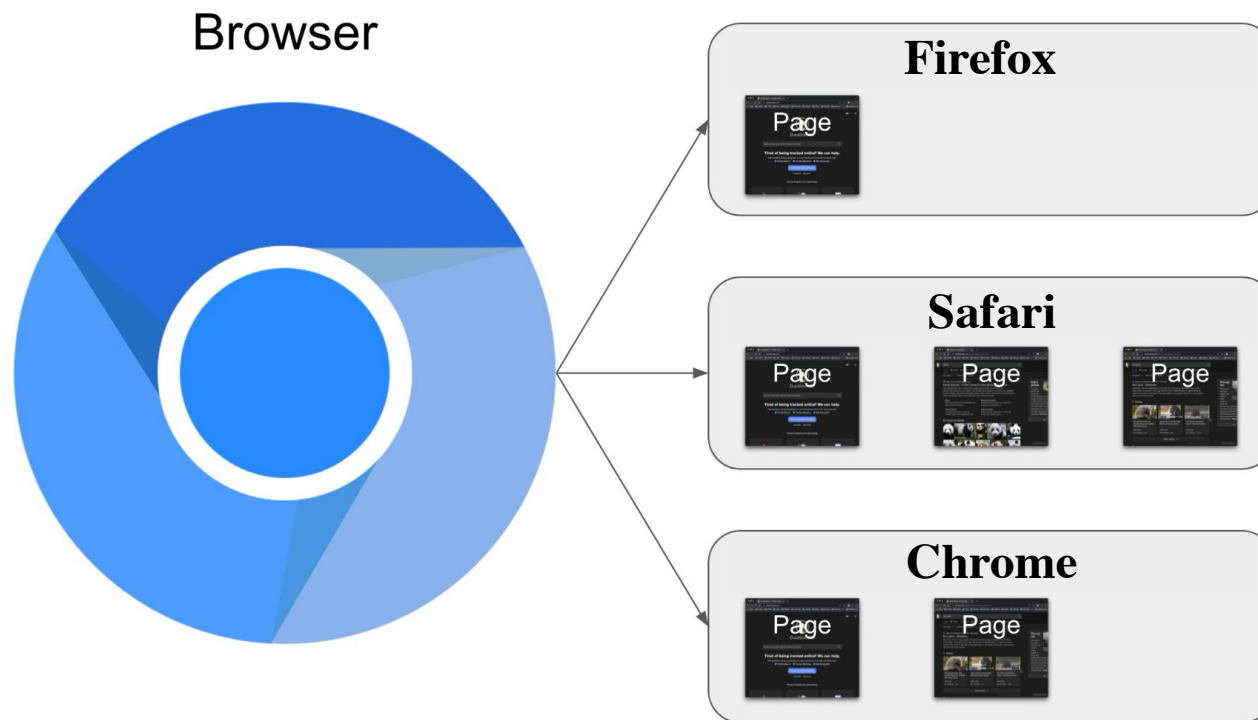
Playwright can help.

Playwright

- A modern, open source web test framework from Microsoft

- Manipulates the browser via (superfast) debug protocols

- Works with Chromium/Chrome/Edge, Firefox, & WebKit

- Provides automatic waiting, test generation, UI mode, etc.

- Can test UIs and APIs together

- Bindings for JavaScript, Python, Java, & C#
  - TypeScript is recommended

Browsers, contexts, and pages

Browser automation tool comparison

Selenium	Cypress	Playwright
Popular among testers	Popular among developers	So hot right now
C#, Java, JavaScript, Ruby, Python	JavaScript only	C#, Java, JavaScript, Python
All major full browsers	Chrome, Edge, Firefox, Electron	Chromium+, Firefox, WebKit
WebDriver protocol	In-browser JavaScript	Debug protocols
Just a tool – requires a framework	Full, modern framework	Full, modern framework
Can be slow/flaky if waiting is poor	Visual execution but can be slow	Typically the fastest execution
Open source, standards, & gov	Open source from Cypress	Open source from Microsoft