Exploring the (testing) pyramid: An expedition towards more accessibility

Andreas Klumpp

/thoughtworks

We are only building an internal application and we have tight deadlines. Accessibility isn’t super important to us and I don’t want to slow down development.

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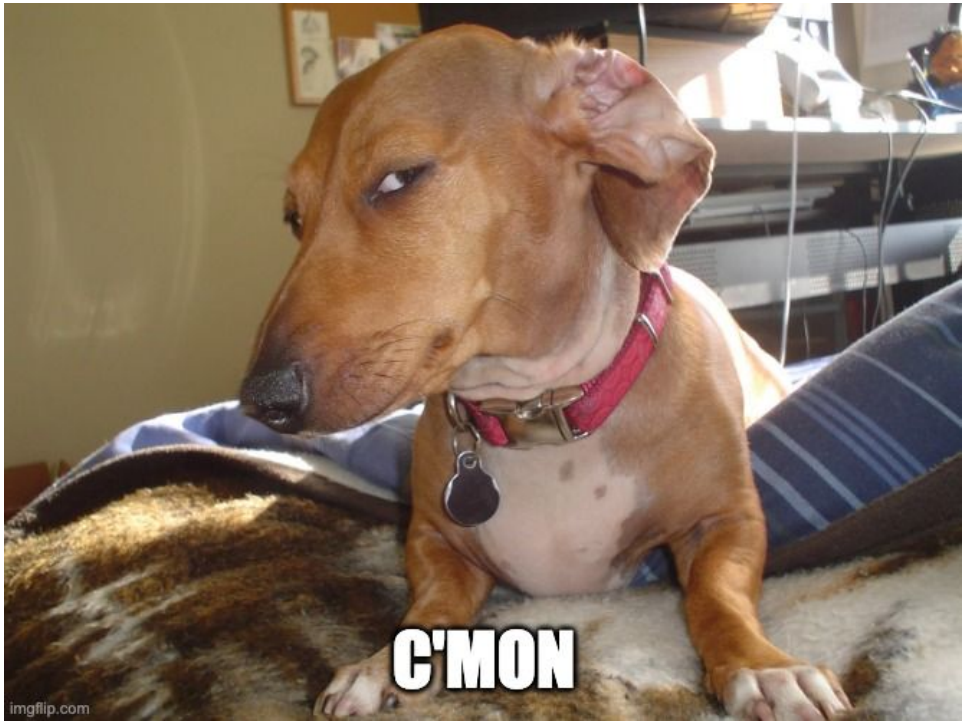
C'MON
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235

days left.

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We are only building an internal application and we have tight deadlines. Accessibility isn't super important to us and **I don't want to slow down development**.

THINKING ABOUT
ENSURING ACCESSIBILITY
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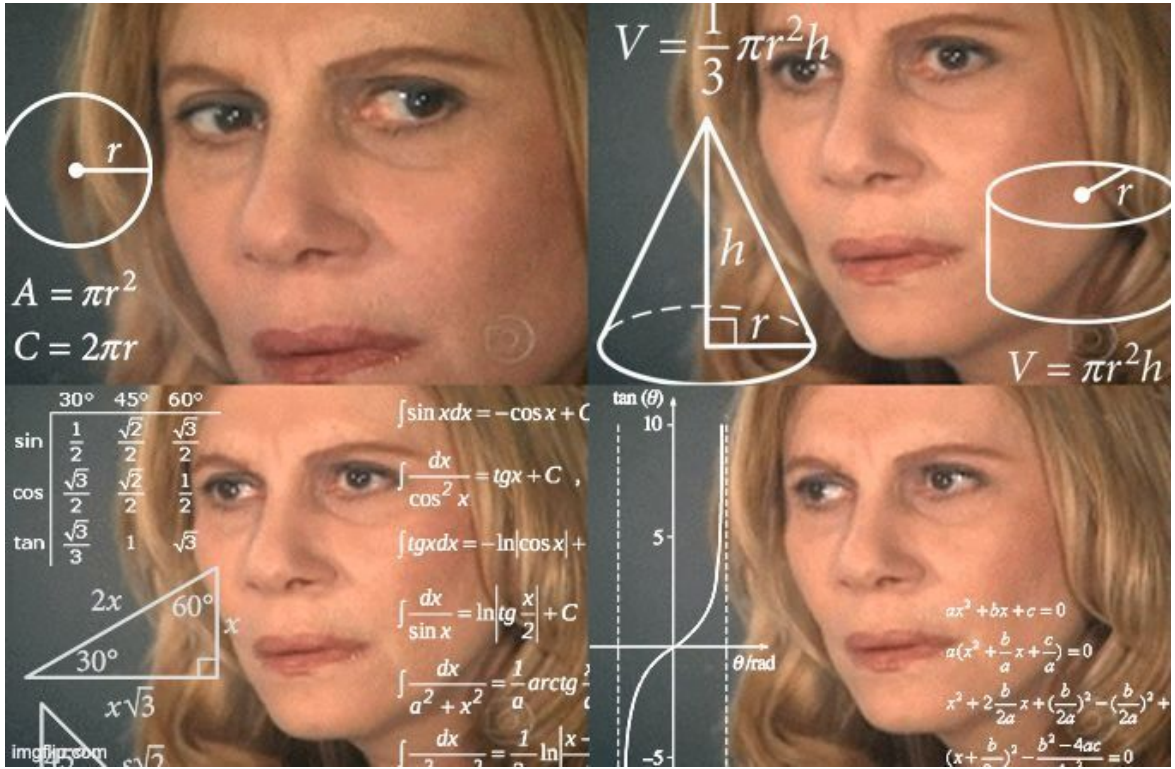
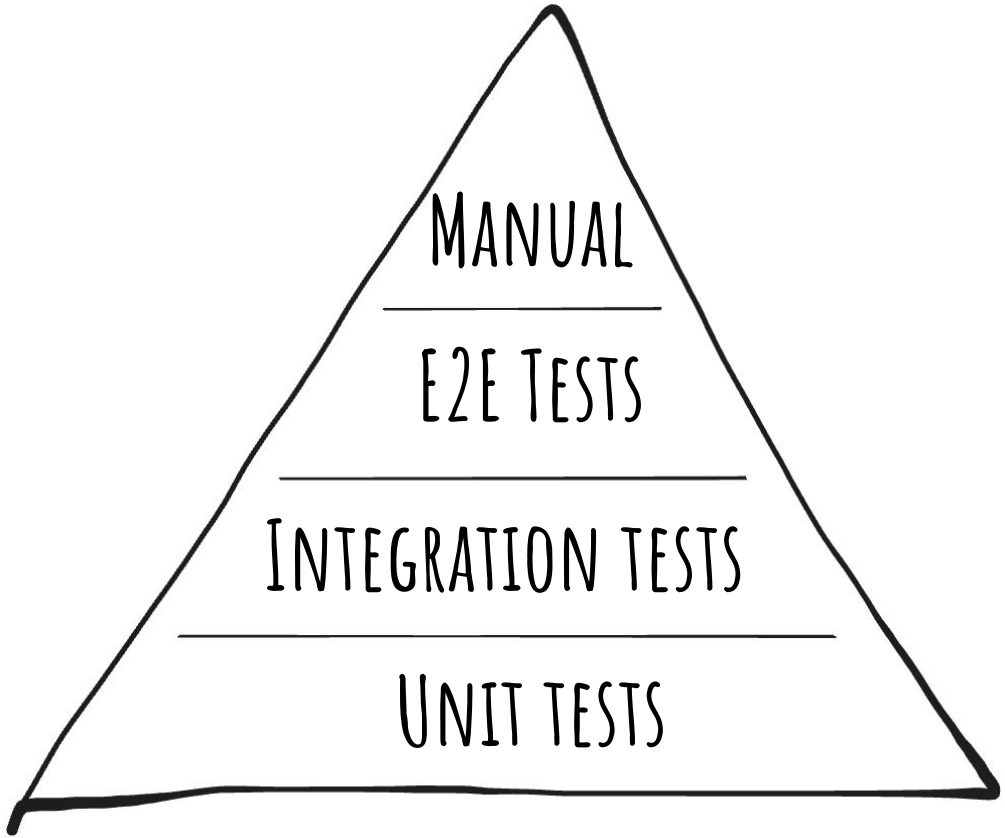
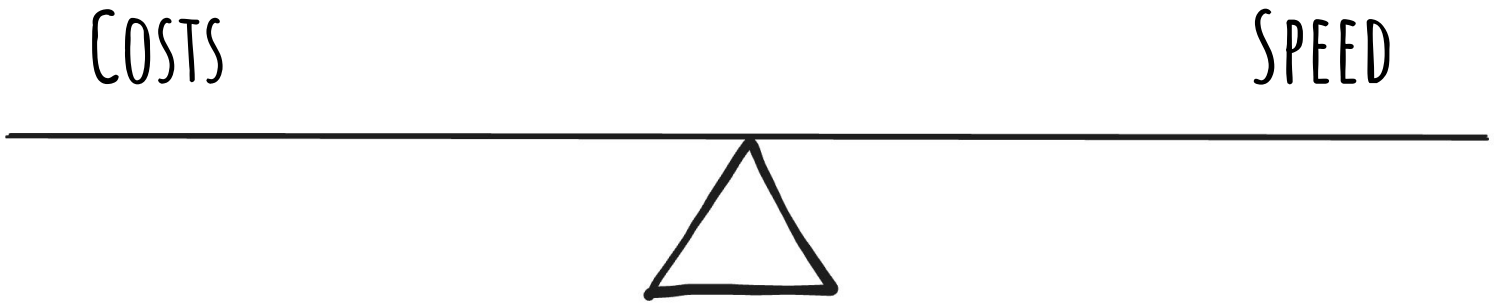
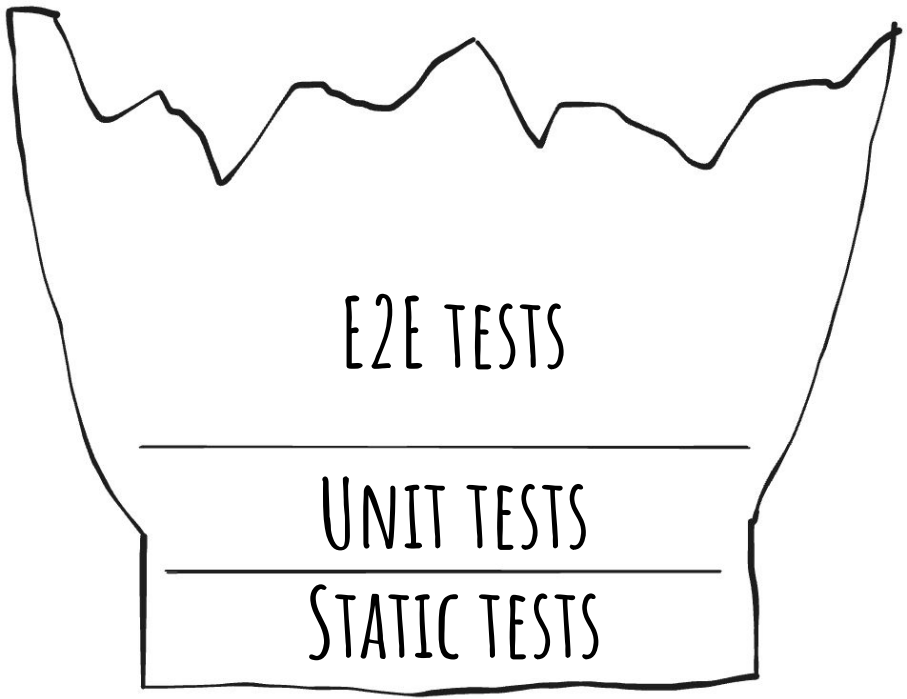
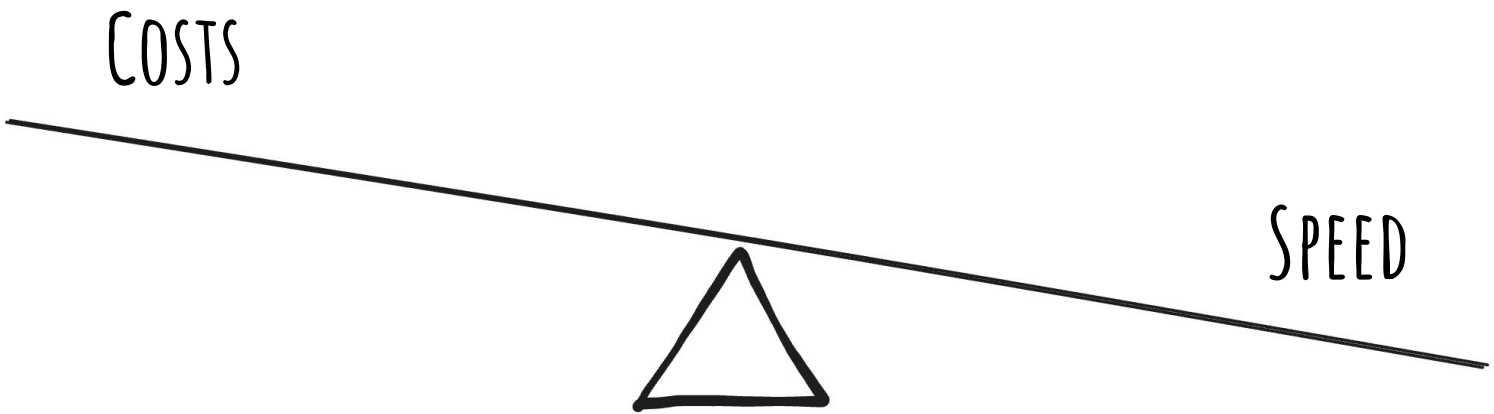
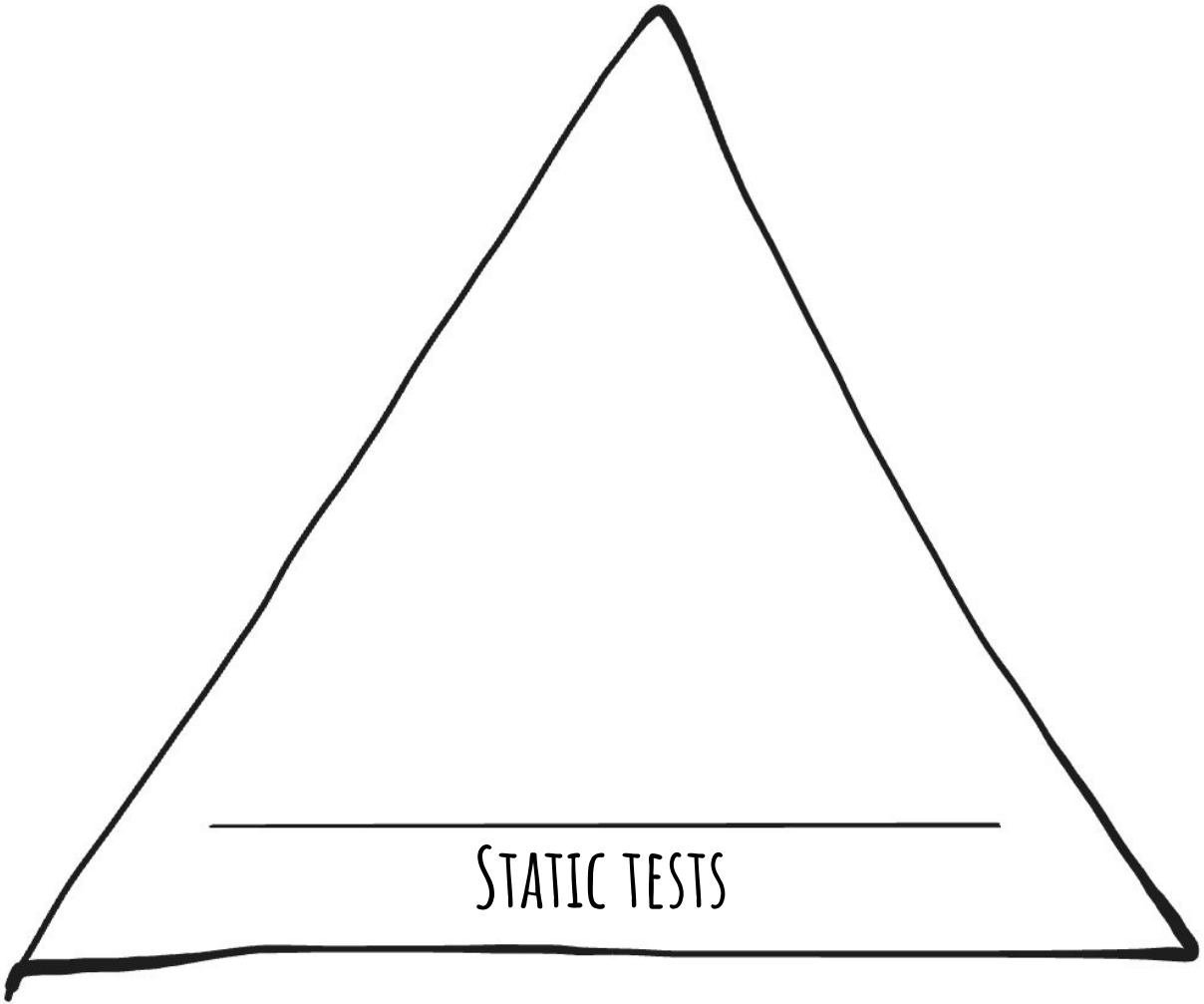

r
$A = \pi r^2$
$C = 2\pi r$
$V = \frac{1}{3}\pi r^2 h$
h
r
r
$V = \pi r^2 h$
30° 45° 60°
sin $\frac{1}{2}$ $\frac{\sqrt{2}}{2}$ $\frac{\sqrt{3}}{2}$
cos $\frac{\sqrt{3}}{2}$ $\frac{\sqrt{2}}{2}$ $\frac{1}{2}$
tan $\frac{\sqrt{3}}{3}$ 1 $\sqrt{3}$
2x
60°
30°
x
$x\sqrt{3}$
$\int \sin x dx = -\cos x + C$
$\int \frac{dx}{\cos^2 x} = tgx + C$,
$\int tgx dx = -\ln|\cos x| +$
$\int \frac{dx}{\sin x} = \ln\left|tg\frac{x}{2}\right| + C$
$\int \frac{dx}{a^2 + x^2} = \frac{1}{a} arctg$
$\int \frac{dx}{} = \frac{1}{} \ln|x -$
tan (θ)
10
5
-5
θ/rad
$ax^2 + bx + c = 0$
$a(x^2 + \frac{b}{a}x + \frac{c}{a}) = 0$
$x^2 + 2\frac{b}{2a}x + (\frac{b}{2a})^2 - (\frac{b}{2a})^2 +$
$(x + \frac{b}{}) - \frac{b^2 - 4ac}{} = 0$


Manual
E2E Tests
Integration tests
Unit tests


Costs
Speed

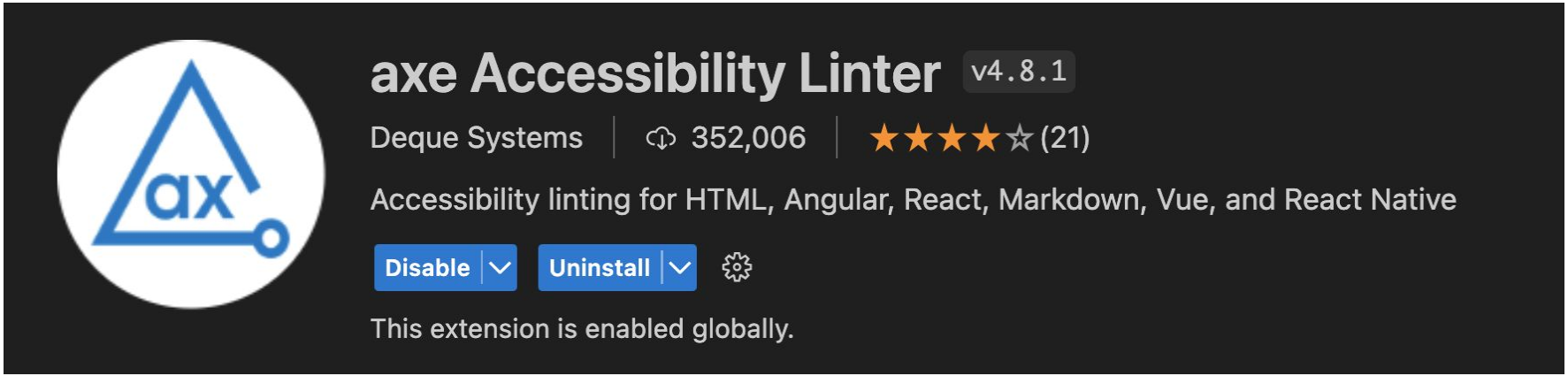

MANUAL TESTS
E2E TESTS
UNIT TESTS
STATIC TESTS


Costs
Speed

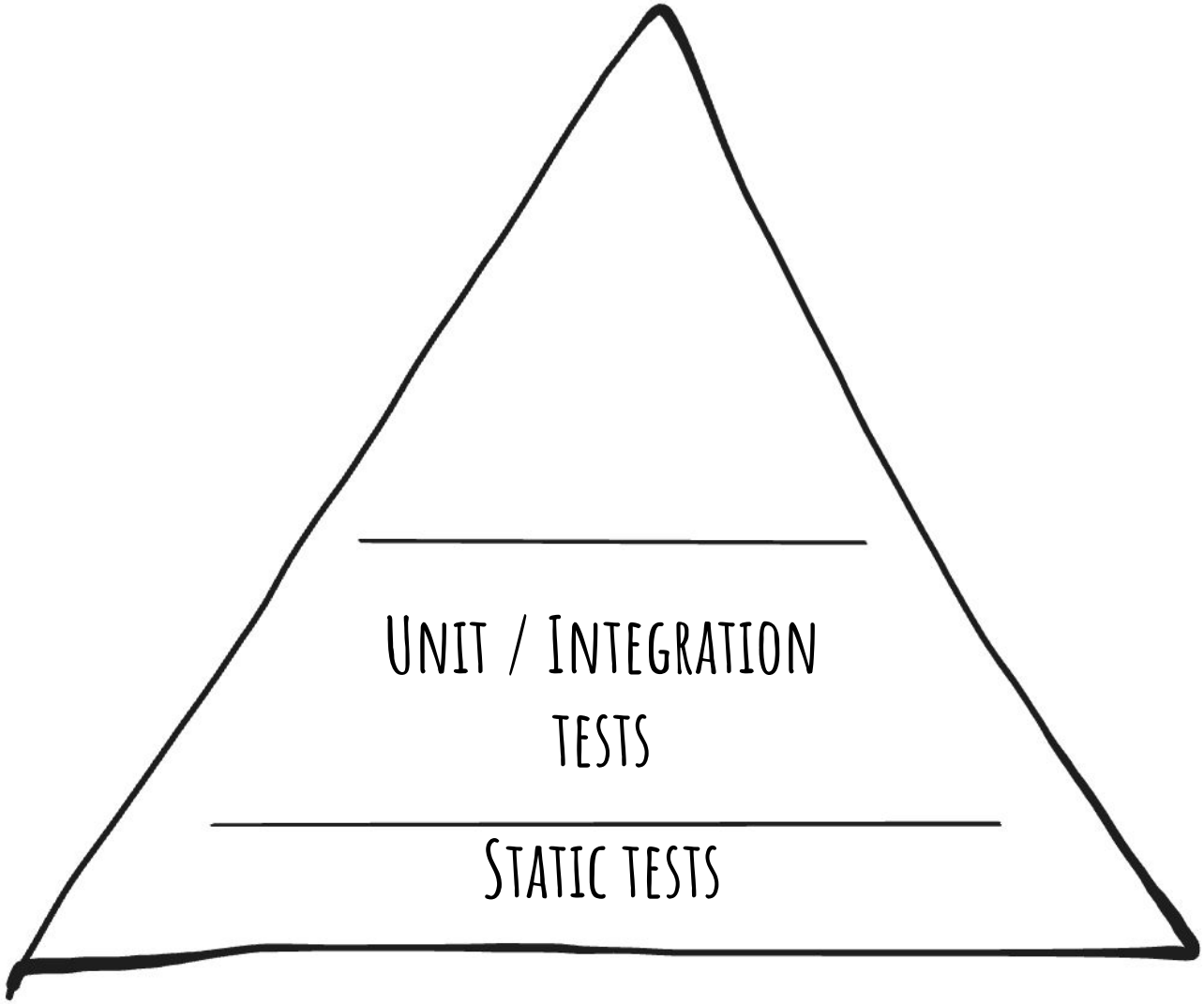

Static tests

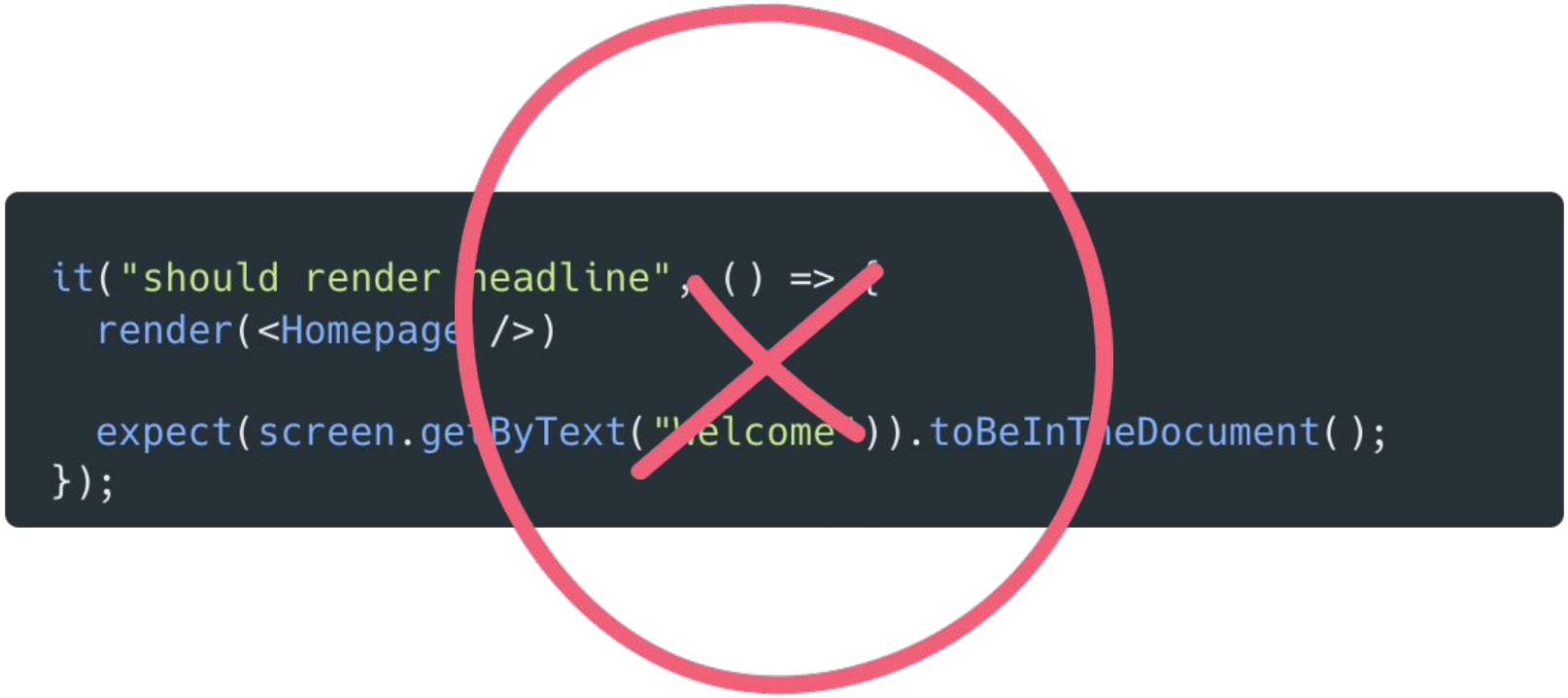
eslint-plugin-jsx-a11y

6.8.0 • Public • Published 4 months ago



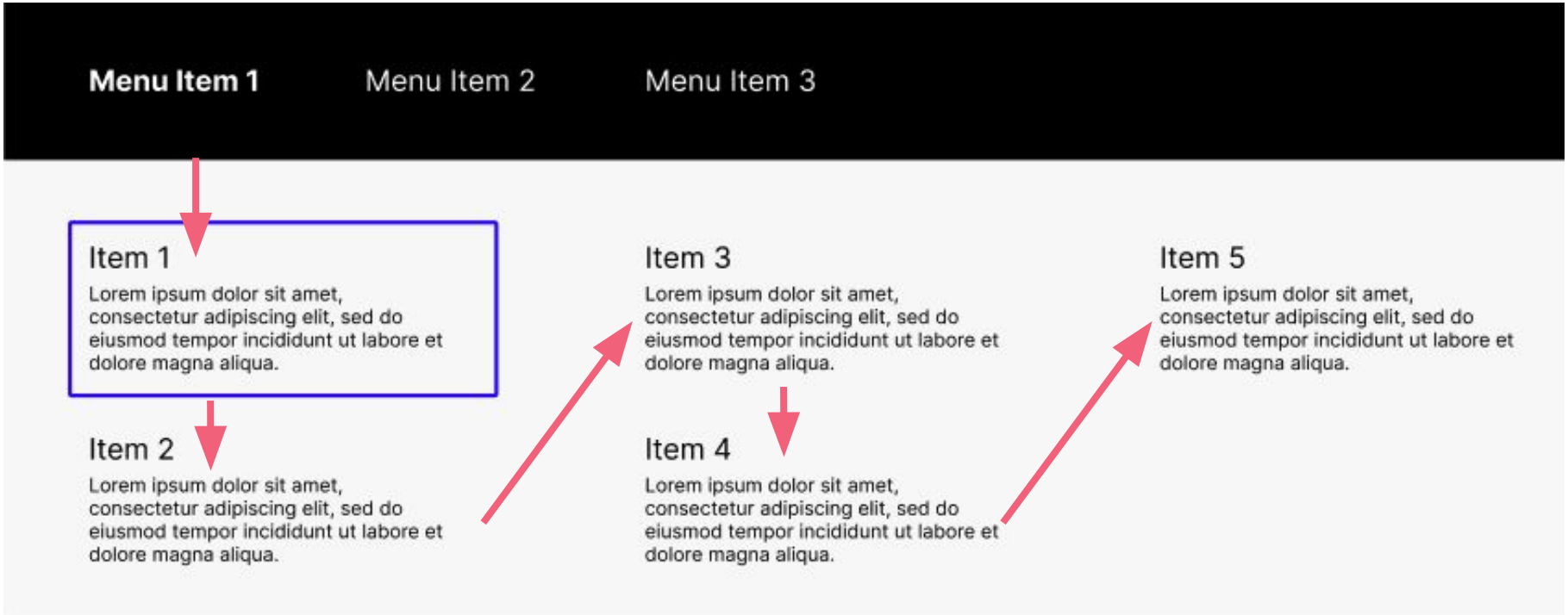
axe-linter (image-alt): Ensure <img> elements have alternate text or a role of none or presentation axe-linter(image-alt)
View Problem (⌥F8) Quick Fix... (⌘.) Fix using Copilot (⌘I)


Unit / Integration
tests
Static tests


it("should render headline", () => {
render(<Homepage />)
expect(screen.getByText("Welcome")).toBeInTheDocument();
});

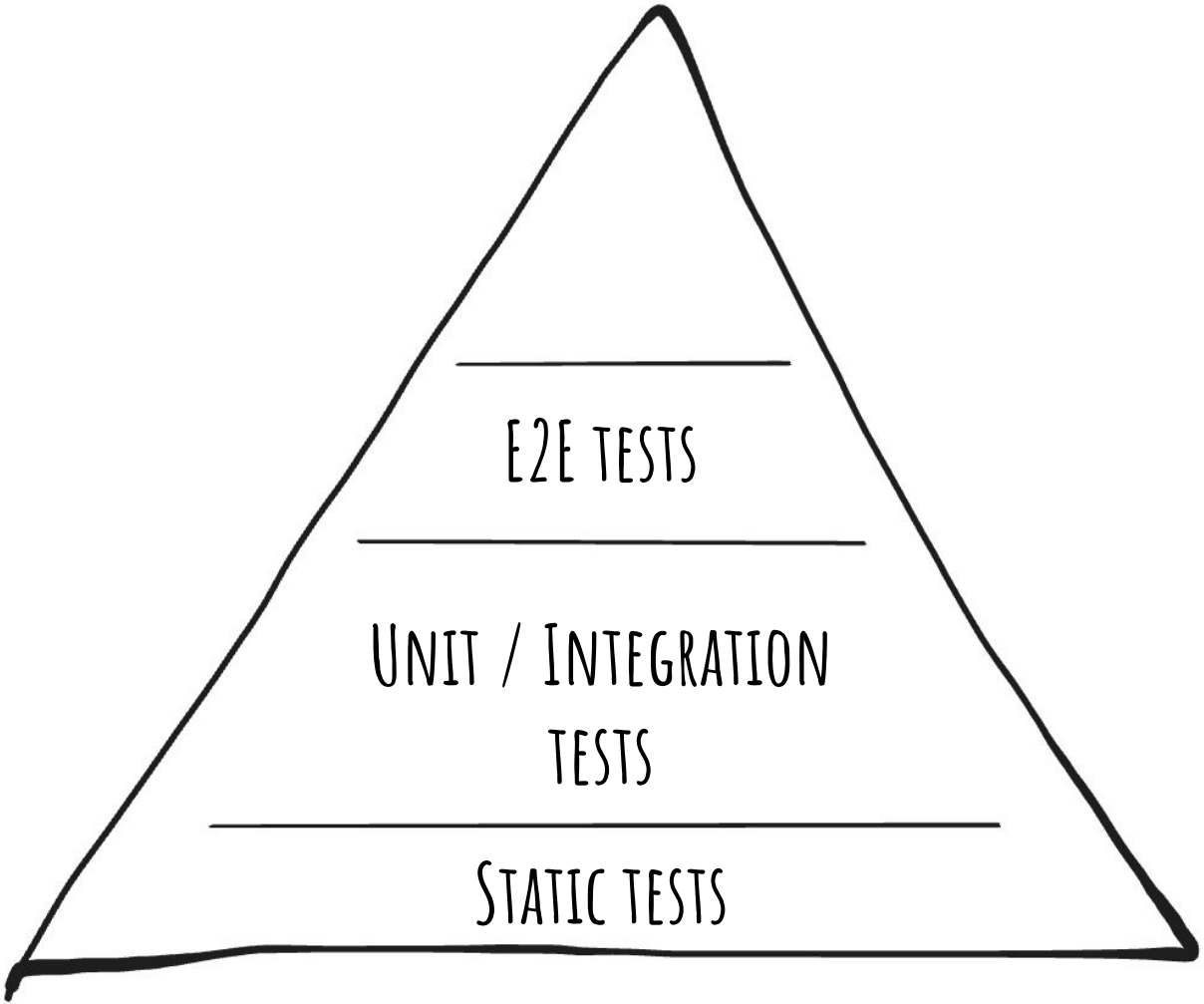
```
it("should render headline", () => {
  render(<Homepage />)

  expect(screen.getByRole("heading"),
    { level: 1, name: "Welcome"}
  ).toBeInTheDocument();
});
```


Menu Item 1
Menu Item 2
Menu Item 3
Item 1
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
Item 2
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
Item 3
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
Item 4
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
Item 5
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

```
it('should navigate through menu in correct tab order',
   async () => {
    render(<List />);

    await userEvent.tab();
    expect(screen.getByText('Item 1')).toHaveFocus();
    await userEvent.tab();
    expect(screen.getByText('Item 2')).toHaveFocus();
    await userEvent.tab();
    expect(screen.getByText('Item 3')).toHaveFocus();
  });
```


E2E tests
Unit / Integration tests
Static tests

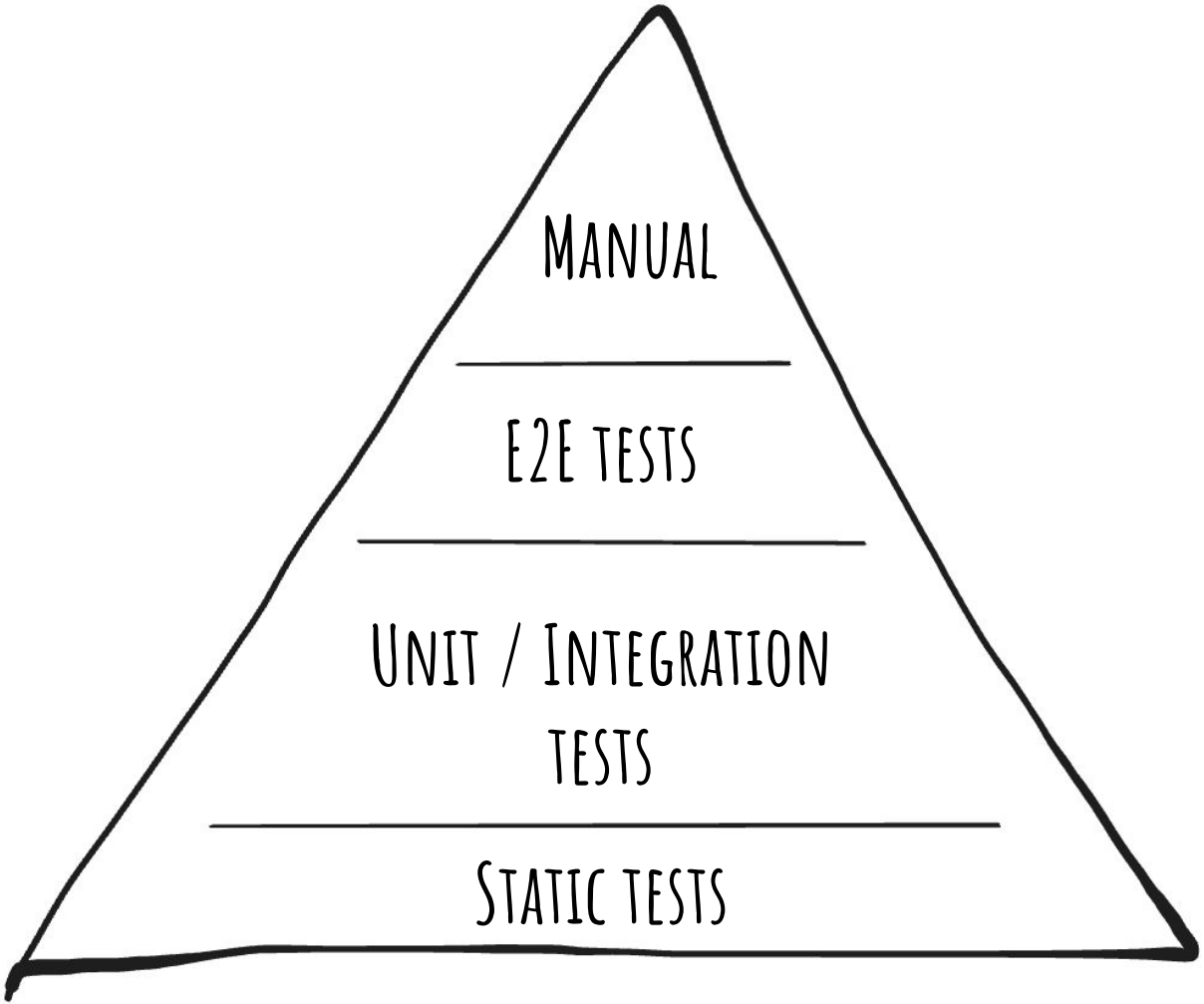
axe-core TS

4.8.4 • Public • Published 24 days ago

```
// Basic usage
it('Has no detectable a11y violations on load', () => {
  // Test the page at initial load
  cy.checkA11y()
})
```

7 accessibility violations were detected

(index)	id	impact	description	nodes
0	'color-contrast'	'serious'	'Ensures the contrast between foreground and background colors meets WCAG 2 AA contrast ratio thresholds'	75
1	'heading-order'	'moderate'	'Ensures the order of headings is semantically correct'	2
2	'image-alt'	'critical'	'Ensures <img> elements have alternate text or a role of none or presentation'	23
3	'label'	'critical'	'Ensures every form element has a label'	4
4	'landmark-one-main'	'moderate'	'Ensures the document has only one main landmark and each iframe in the page has at most one main landmark'	1
5	'region'	'moderate'	'Ensures all page content is contained by landmarks'	1
6	'scrollable-region-focusable'	'moderate'	'Elements that have scrollable content should be accessible by keyboard'	2


Manual
E2E tests
Unit / Integration tests
Static tests

You are not the user.
You are not the user.
You are not the user.
You are not the user.
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So little effort
with such a
great impact.

A practitioner's accessibility handbook

For product teams

https://www.thoughtworks.com/content/dam/thoughtworks/documents/e-book/tw_ebook_accessibility_handbook_v4.pdf

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Thank you!

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