



**Henry LAGARDE**  
Software Engineer



<https://github.com/tolares/talks>



# Accessibility: Why bother?

Devoxx BE

# Agenda

1

2

3

**Accessibility for  
everyone**

**STARK method**

**How to test it?**

# Accessibility for everyone

# Accessibility for everyone

What is Accessibility ? (A 11 Y)

Enabling everyone to use your site

- those with limitations
- those with disabilities
- those with abled bodies

In the US

25% of US Citizens have a disability (2018 estimate)

# Accessibility for everyone

What is Accessibility ? (A 11 Y)

Different types of Accessibility needs

- Motor disability
- Cognitive
- Visual
- Auditory

# Accessibility for everyone

Which tools can solve this issues ?

- Screen Readers
- Screen magnifiers
- Selection switches
- Head tracker for mouse
- Voice recognition, Close captions for audio ....

## Accessibility Shortcuts

### Vision



VoiceOver



Zoom



Invert Colors



Color Filters



Increase Contrast



Reduce Transparency

# Accessibility for everyone

**EXPECTATION**



**REALITY**



# Accessibility for everyone



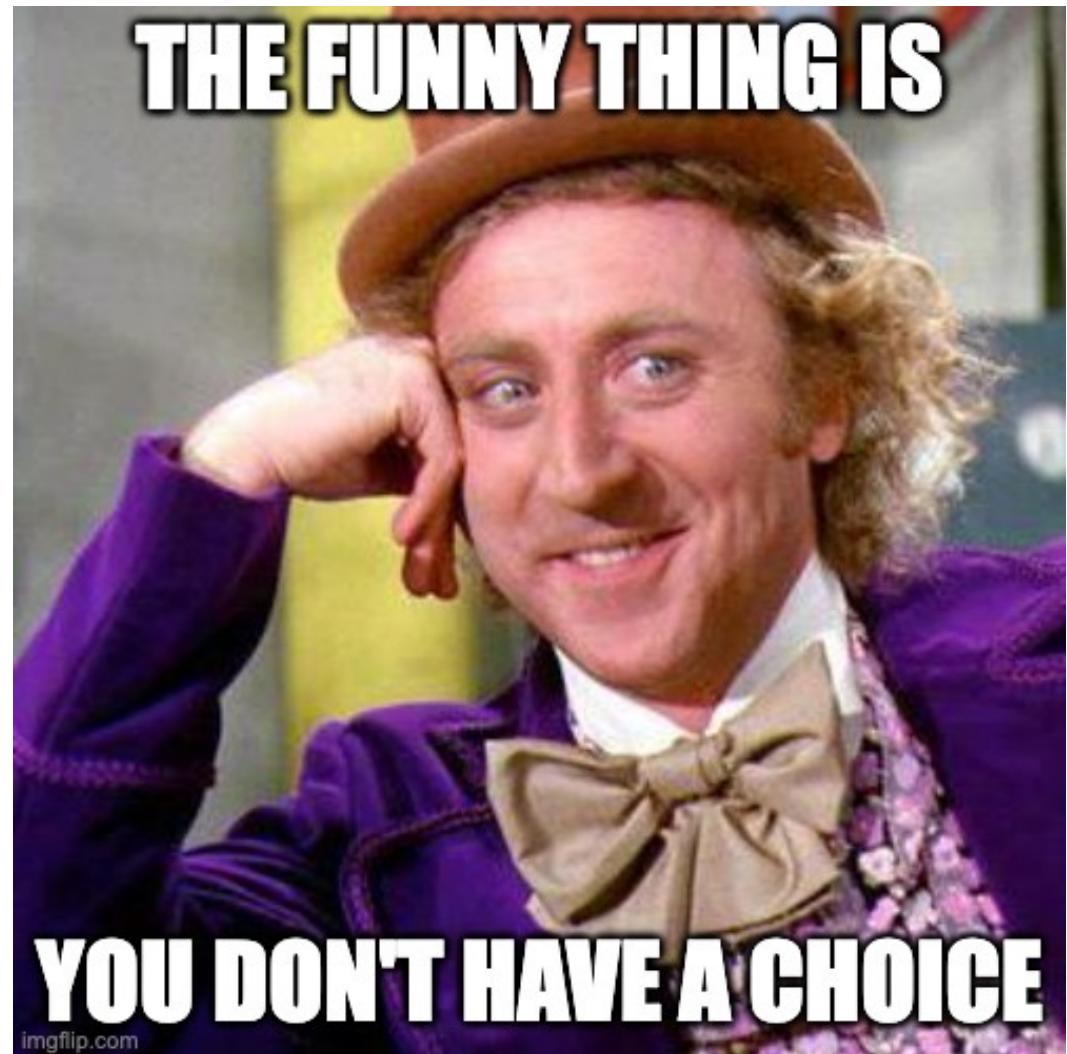
# Accessibility for everyone

In the EU:

- European Accessibility Act

In the UK:

- Equality act in 2010
- WCAG 2.1 AA guideline
- Accessibility statement



# STARK Method

# STARK Method



# STARK Method

Semantic HTML

TabIndex

Aria tags

Role

Keyboard navigation & screen reader

# STARK Method

Semantic HTML

TabIndex

Aria tags

Role

Keyboard navigation & screen reader

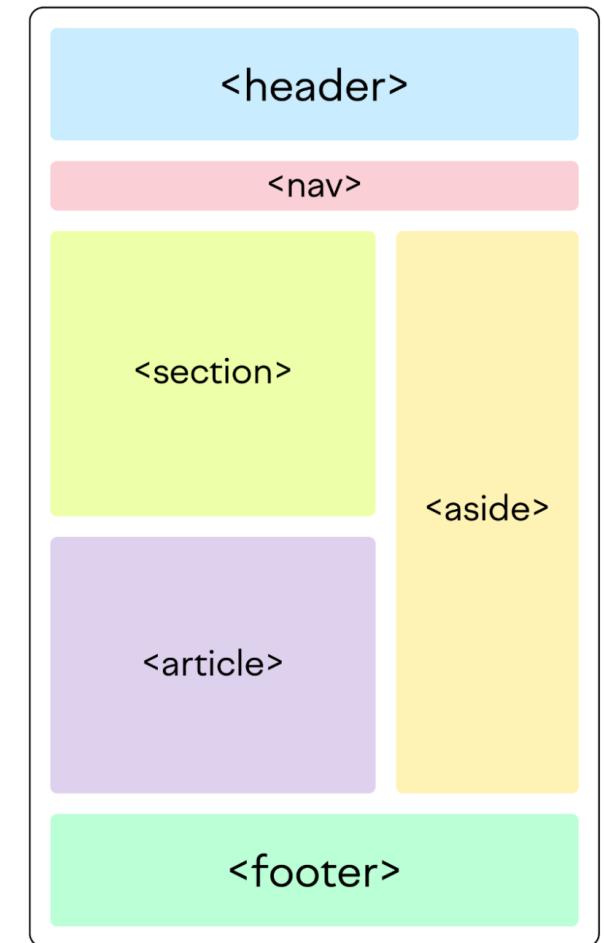
# Semantic HTML

# STARK Method

## Semantic HTML

- Use **buttons** for actions
- Whenever using **<a>**, give href
- Whenever using **<img>**, give alt
- **Don't fake heading levels** with CSS
- Use semantic HTML - **nav, header, main**

## Semantic HTML



# STARK Method

## Semantic HTML

- **<select>** lets you select with space bar.
- **Button** can be clicked with enter.
- **Button** can be tabbed to.
- **<nav>** can be accessed with arrow keys.



# Semantic HTML

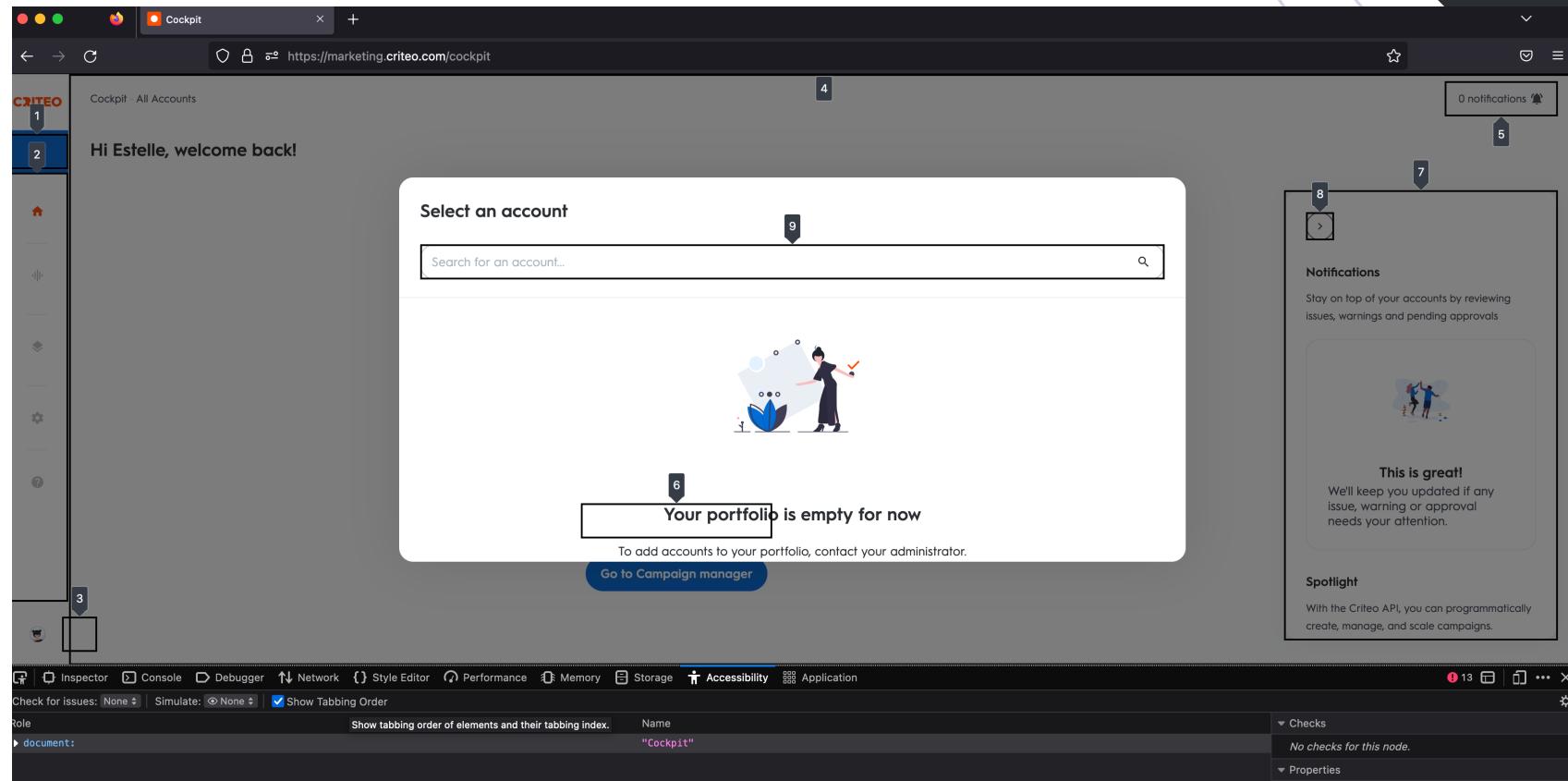
=

# FREE Accessibility

# Tab Index

# STARK Method

## Tab Index



Tip:

Use tab index to set tabbing order

Use Firefox to debug tab order

# Aria tags

# STARK Method

Aria

- Aria-label
- Aria-checked
- Aria-expanded
- Aria-errormessage
- Aria-hidden

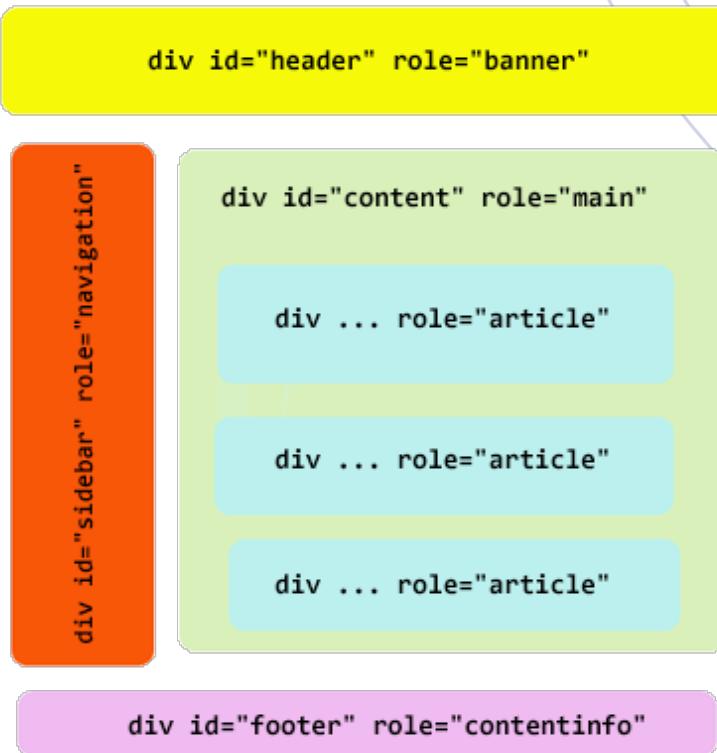


# Role

# STARK Method

## Role

- Alert
- Button
- Checkbox
- Grid
- Row
- MenuItem
- Radio
- Etc .....



### Tip:

The `role` attribute describes the role of an element in programs that can make use of it, such as screen readers or magnifiers.

# STARK Method

Role

```
<a href="#" role="button">Button Link</a>
```

Screen Readers will read this element as “button” instead of “link”.

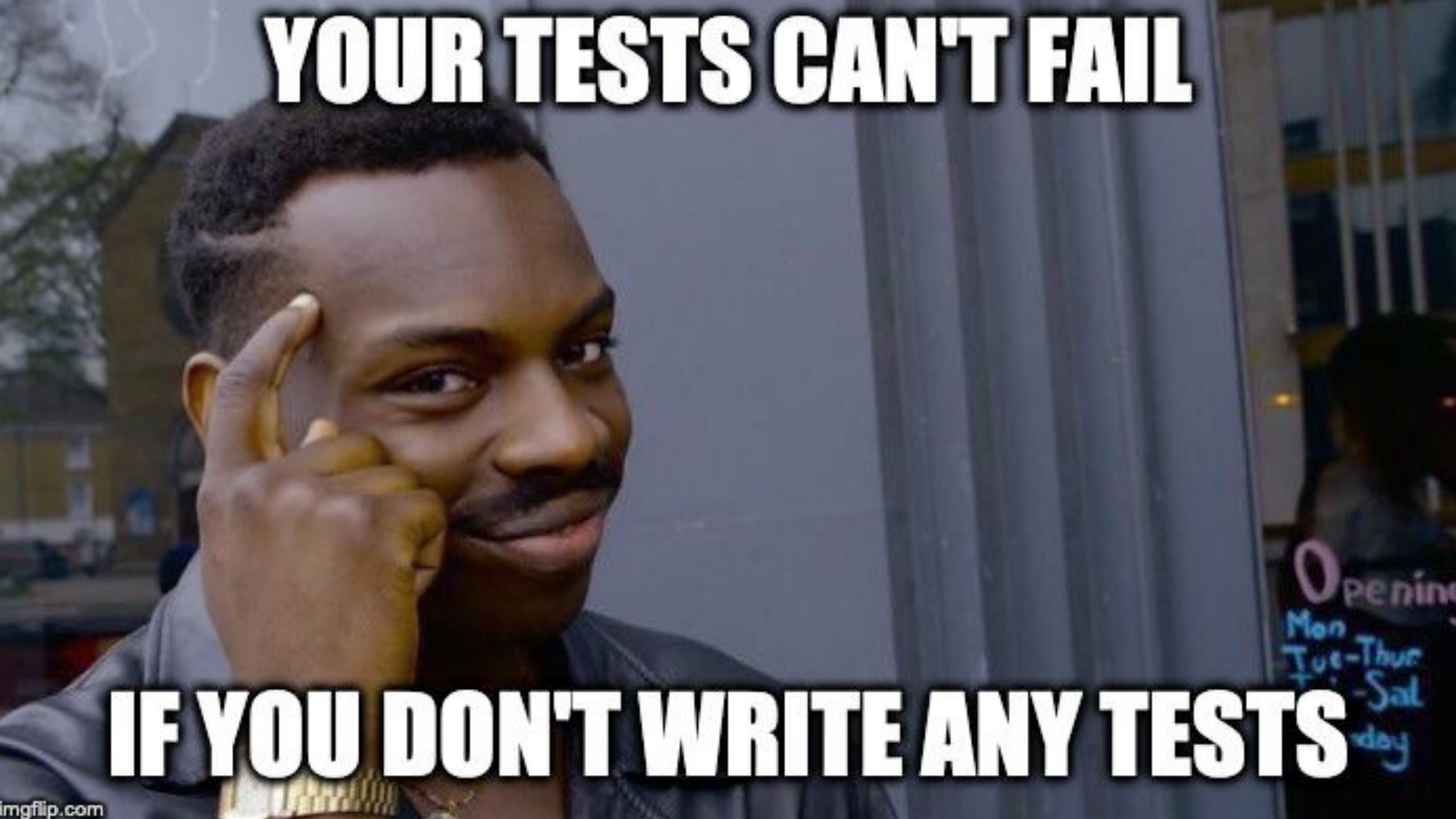
# Keyboard Navigation

# STARK Method

Keyboard navigation & Screen reader

- Use only **tab keys, arrows and space bar, esc** to navigate every actionable item on the web page
- Ensure **focus stays visible**
- Test keyboard navigation
- Use **screen reader**

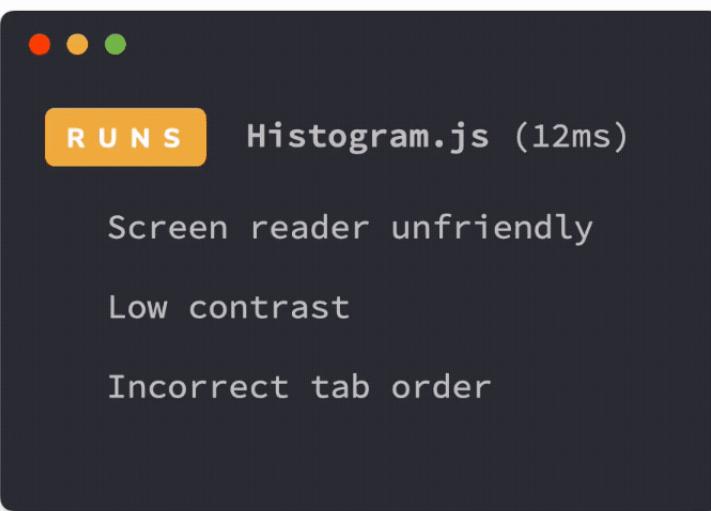
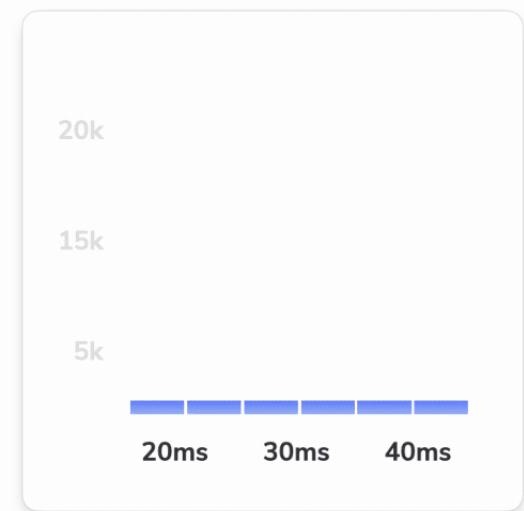
# How to test it?



**YOUR TESTS CAN'T FAIL**

**IF YOU DON'T WRITE ANY TESTS**

# Test your app



# Test your app

- Manual testing : Accessibility panel
- Storybook : UI & CI
- Cypress : UI & CI



# Test your app

Useful links

- Cypress Audit :  
<https://mfrachet.github.io/cypress-audit/guides/pally/installation.html#the-server-configuration>
- Storybook A11Y :  
<https://storybook.js.org/blog/automate-accessibility-tests-with-storybook/>



# Conclusion





# Questions?