

# The Ultimate Practical Guide to: **Accessibility Testing**

*Manoj Kumar Kumar*  
*VP - Developer Relations - LambdaTest*

# Guide to Accessibility Testing

1

**A11Y Essentials**

2

**Human-Centered SDLC**

3

**Testing for A11Y**

ACCESSIBILITY



A1111111111111Y

## CLEARING A PATH FOR PEOPLE WITH SPECIAL NEEDS



CLEARs PATH  
FOR  
EVERYONE





Over 15% of the world's population, or an estimated 1 billion people, **are persons with disabilities.**



euronews.

# 120m

REAL  
ECONOMY

euronews



# Don't wait to get Sued..!

- \$6 Million National Federation of the Blind v. Target Corporation
- \$1,575,000 National Association of the Deaf v. Harvard
- \$755,000 National Association of the Deaf v. Netflix
- Juan Carlos Gil vs. chain Winn-Dixie Gil v. Winn-Dixie
- \$100,000 National Federation of the Blind (NFB) vs. HRB Digital LLC and HRB Tax Group, Inc.















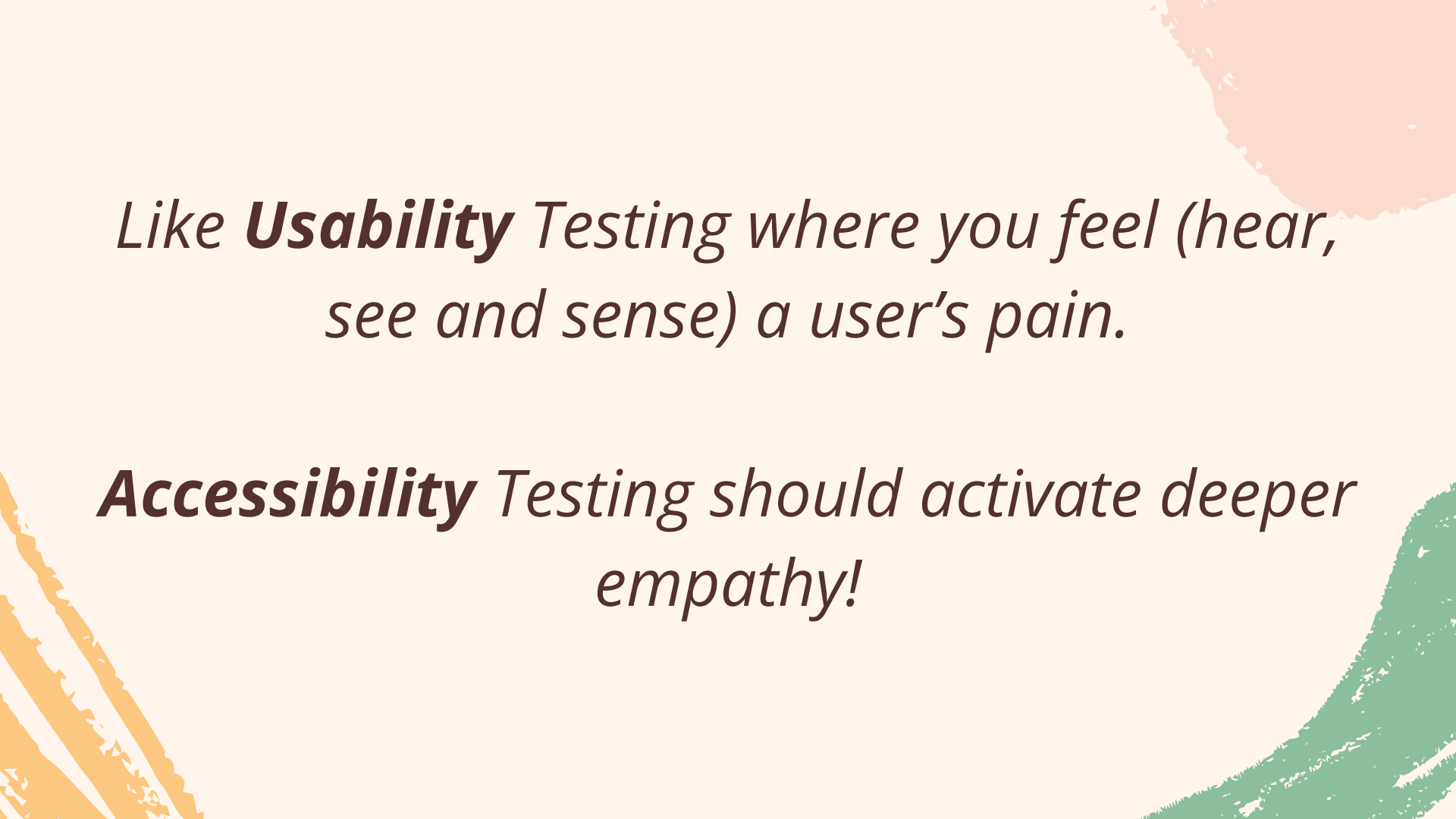
# Accessibility is Fundamental Right!





# Persona Spectrum

	Permanent	Temporary	Situational
Touch	 One arm	 Arm injury	 New parent
See	 Blind	 Cataract	 Distracted driver
Hear	 Deaf	 Ear infection	 Bartender
Speak	 Non-verbal	 Laryngitis	 Heavy accent





*Like **Usability** Testing where you feel (hear, see and sense) a user's pain.*

***Accessibility** Testing should activate deeper empathy!*

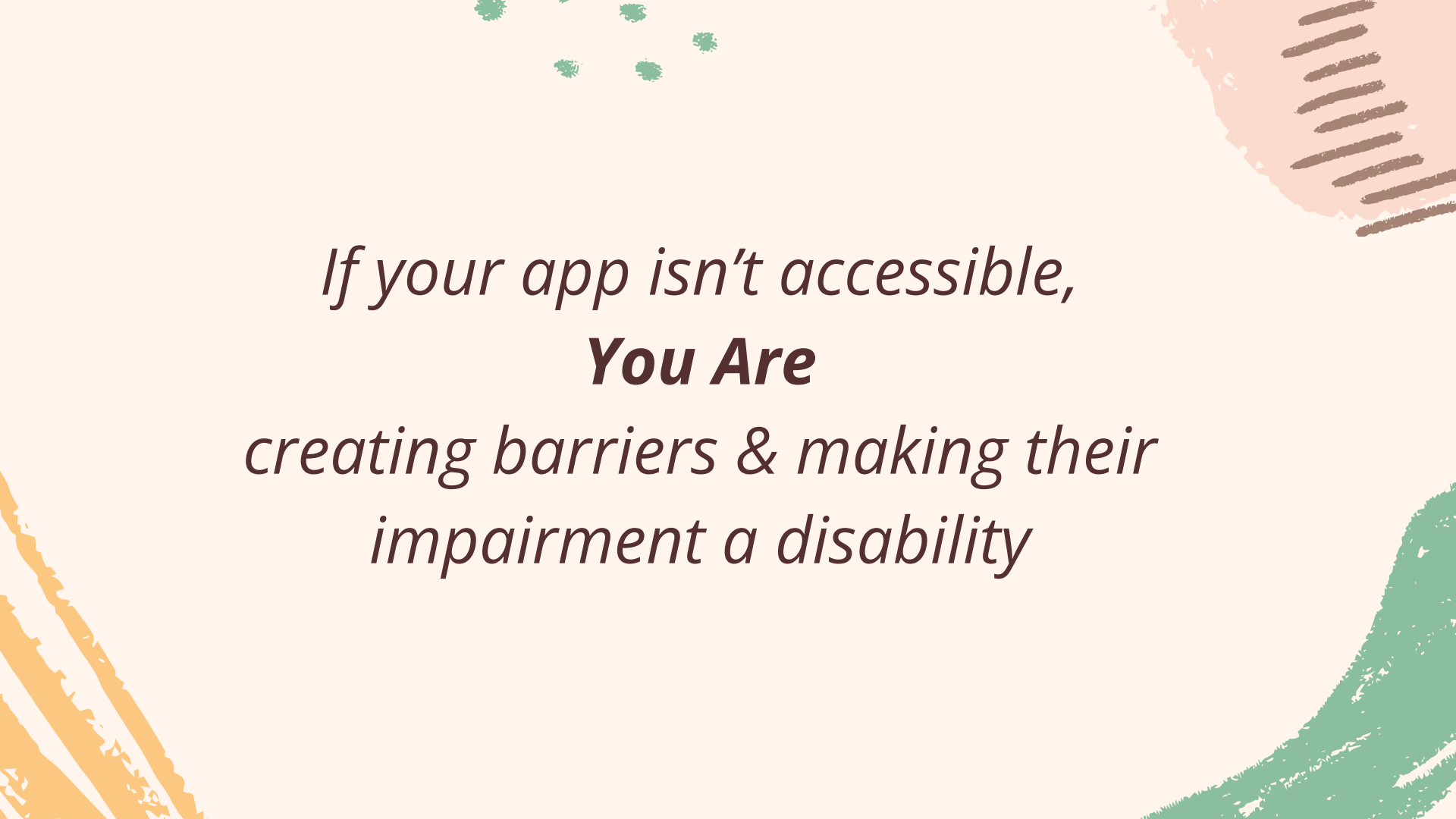


**Empathy,  
Not Sympathy!**



Disability  
=  
Limited  
Human  
Interaction

Disability  
≠  
Physical  
Condition



*If your app isn't accessible,  
**You Are**  
creating barriers & making their  
impairment a disability*

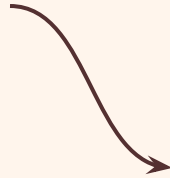
World Wide Web Consortium (W3C)



Web Accessibility Initiative (WAI)



Web Accessibility Content Guidelines  
(2.2 / 2.3)



Create **PERCEIVABLE** content

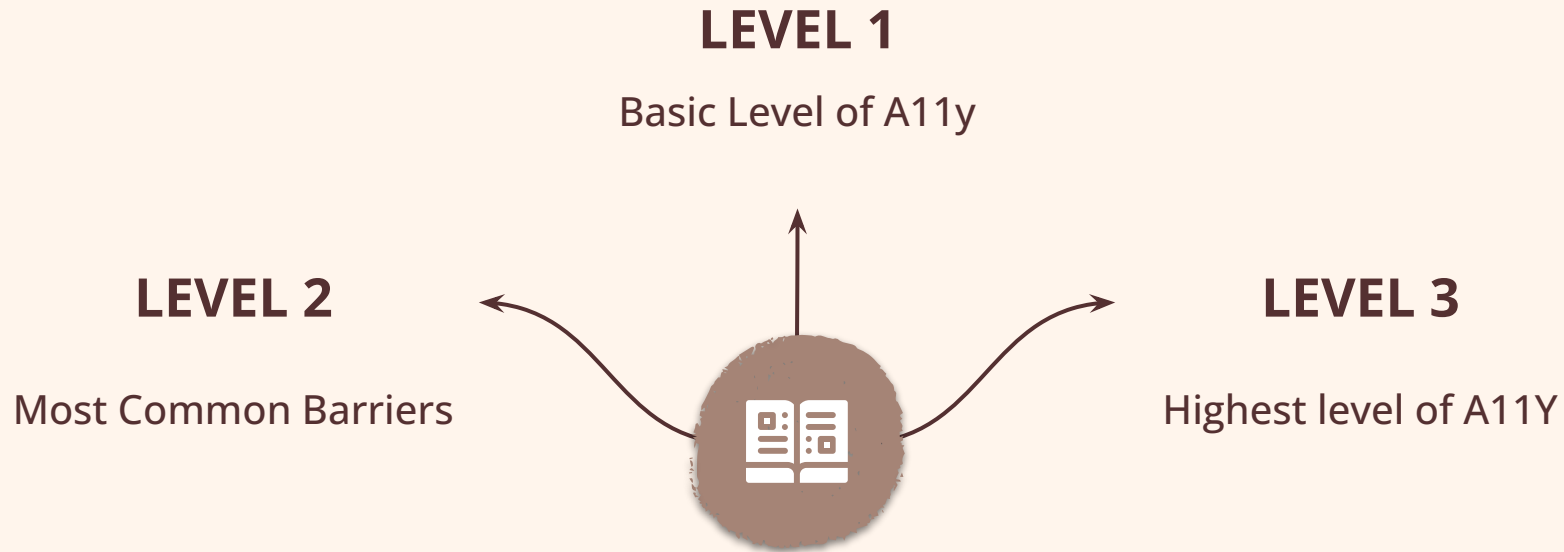
Ensure your Interface is **OPERABLE**

Make your site **UNDERSTANDABLE**

Build **ROBUST** web content



# Web Content Accessibility Guidelines



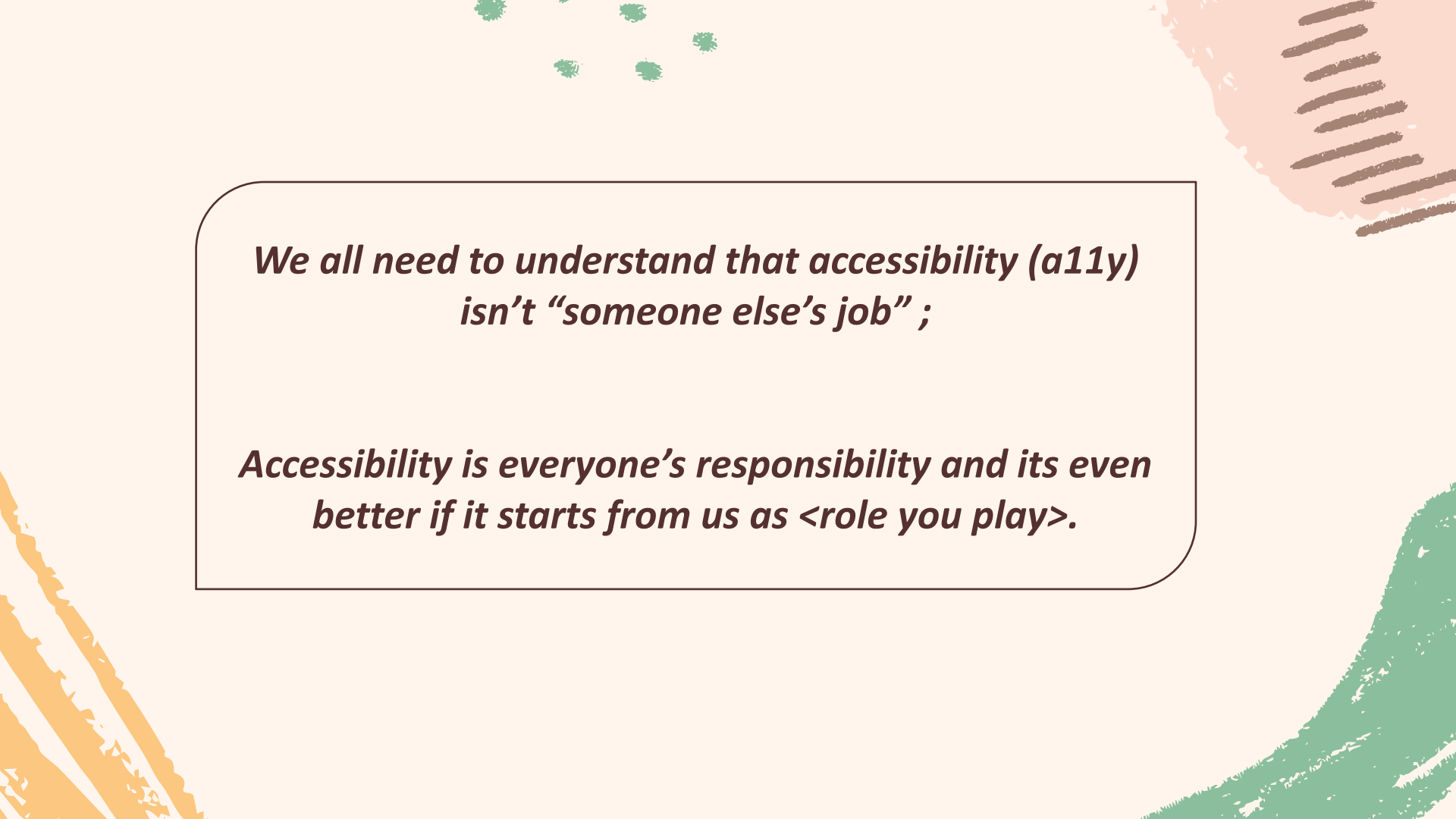
# Structure of WCAG

Principles	Guidelines	Level A	Level AA	Level AAA
Perceivable	Text Alternatives	✓		
	Time-based Media	✓	✓	✓
	Adaptable	✓		
	Distinguishable	✓	✓	✓
Operable	Keyboard Accessible	✓		✓
	Enough Time	✓		✓
	Seizures	✓		✓
	Navigable	✓	✓	✓
Understandable	Readable	✓	✓	✓
	Predictable	✓	✓	✓
	Input	✓	✓	✓
Robust	Compatible	✓		



# Human-Centered SDLC





*We all need to understand that accessibility (a11y) isn't "someone else's job" ;*

*Accessibility is everyone's responsibility and its even better if it starts from us as <role you play>.*

# Analysis & Planning Phase

Early planning on Accessibility leads to multiple benefits:

- Reducing legal risks
- Strengthening brand presence
- Improving customer experience
- Inclusive and productive teams

Inclusive design practices should be advocated.

- Product roadmap with user personas with disabilities
- Design of user interaction considers experiences other than screens when accessibility is a consideration.
- The result is, interaction that is more human-centered, natural, and contextual.

Understand the guidelines and select the conformance levels adhere to.

- The conformance levels should be built into the project's formal technical specifications and included as part of the budget.

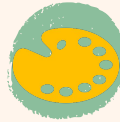
# Accessibility at Design Phase



Start as early as possible from UX prototypes



Introduce Design kit, GEL and bake in A11Y.



Define Inclusive Colour Contrast








Design ethos. Avoid tech that are known to be inaccessible



Conduct usability testing outside of your organization.

# Accessibility at Development Phase










	Inclusive mindset
	Design what everyone can use and not what is easy to develop
	Workshops on A11Y specific to creating accessible components.
	Learning on Focus order
	Using ARIA( <i>Accessible Rich Internet Applications</i> ) judiciously



# Accessibility at Testing Phase




	Consider people with disabilities for user testing
	Automated Accessibility is not a silver bullet solution, but still good enough find about 40-50% of A11Y issues
	Test and ensure quality of A11Y at all the levels of Test Pyramid
	Consider adding A11Y tests as part of your build
	Use Screen readers




# Testing for Accessibility





***There is no substitute for  
real user feedback.  
Include people with disabilities to test***



# Accessibility Testing

```
graph TD; A[Accessibility Testing] --> B[Formative Testing]; A --> C[Summative Testing]; B --> D[Forms your decision, use code to fix during development]; C --> E[Sums up metrics, Certify compliance, third-party software]
```

## Formative Testing

Forms your decision,  
use code to fix  
during development

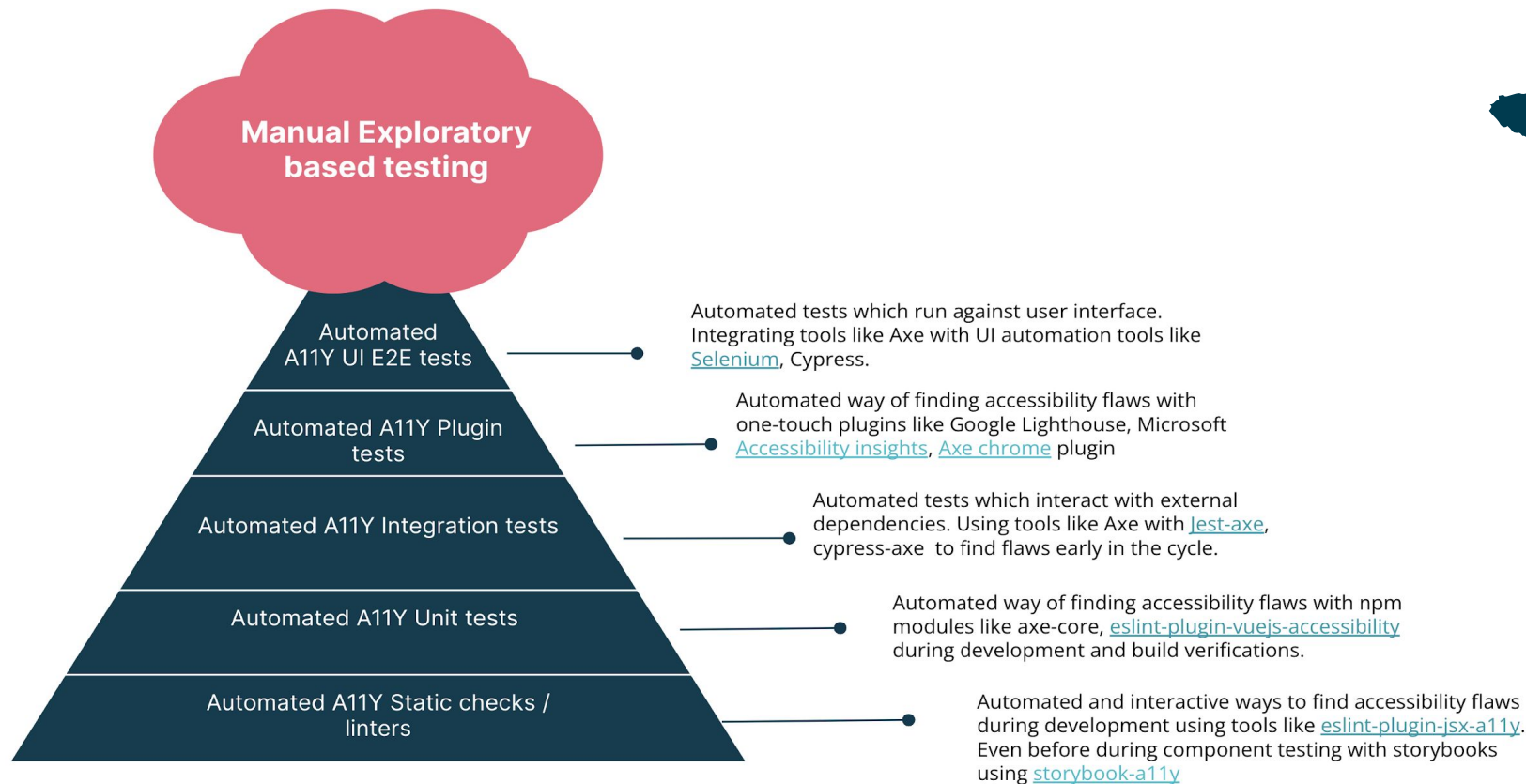
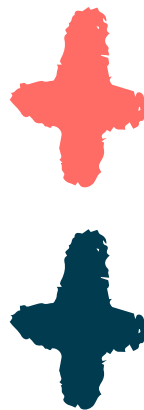
## Summative Testing

Sums up metrics,  
Certify compliance,  
third-party software

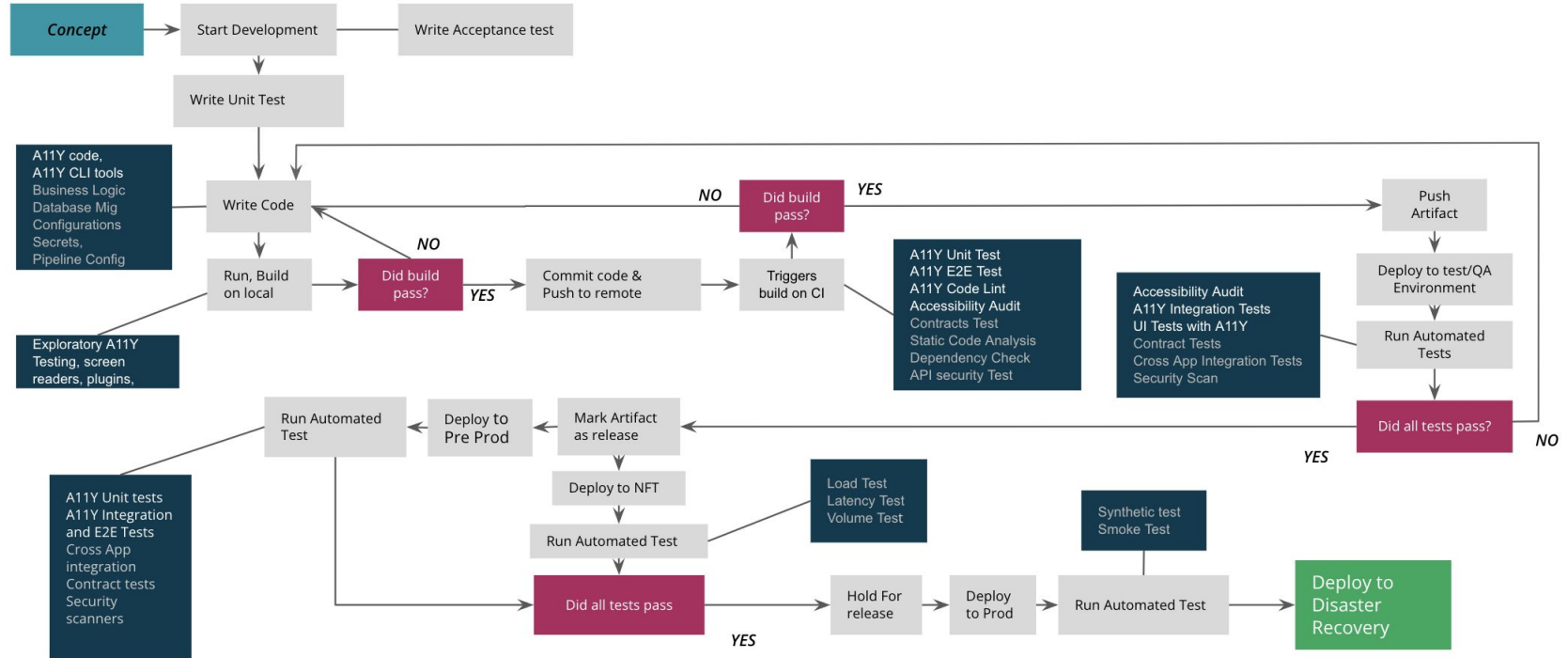
# What can you test?

✓	Test for Keyboard navigation
✓	Test for Touch Target Size
✓	Test for Landmarks
✓	Test for color contrast ratio
✓	Test for Form labels
✓	Test with Assistive devices

# Accessibility Test Pyramid

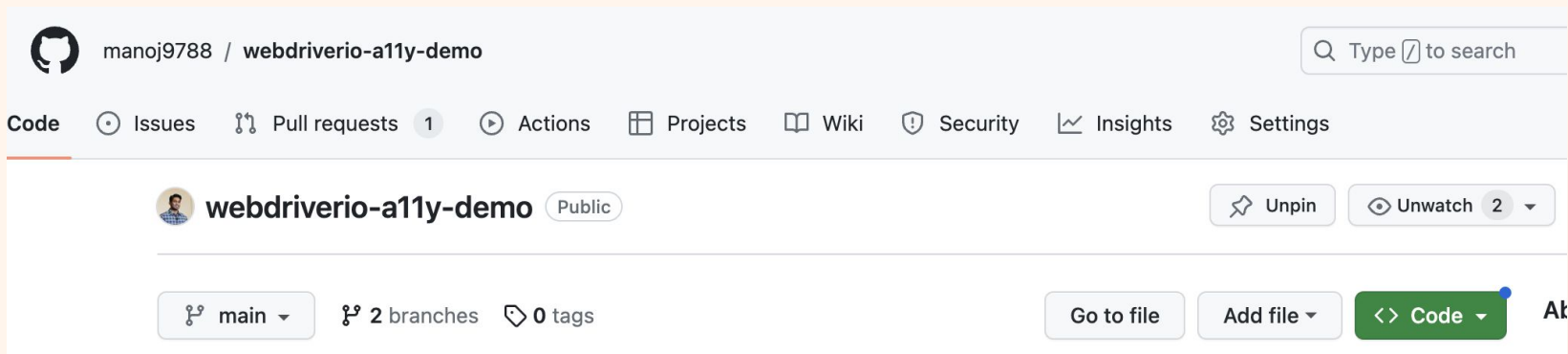


# Inclusive Path to Production





<https://github.com/manoj9788/webdriverio-a11y-demo>



The screenshot shows the GitHub interface for the repository `webdriverio-a11y-demo` by user `manoj9788`. The repository is public. The navigation bar includes links for Code, Issues, Pull requests (1), Actions, Projects, Wiki, Security, Insights, and Settings. Below the repository name, there are buttons for Unpin, Unwatch (2), and a dropdown menu. At the bottom, there are buttons for Go to file, Add file, and a green Code button with a dropdown menu. The repository has 2 branches and 0 tags.

manoj9788 / webdriverio-a11y-demo

Search Type to search

Code Issues Pull requests 1 Actions Projects Wiki Security Insights Settings

webdriverio-a11y-demo Public

Unpin Unwatch 2

main 2 branches 0 tags Go to file Add file Code

# Common A11Y errors

*WebAIM says 97.4% of home pages had detected WCAG 2 failures.*



Low contrast text

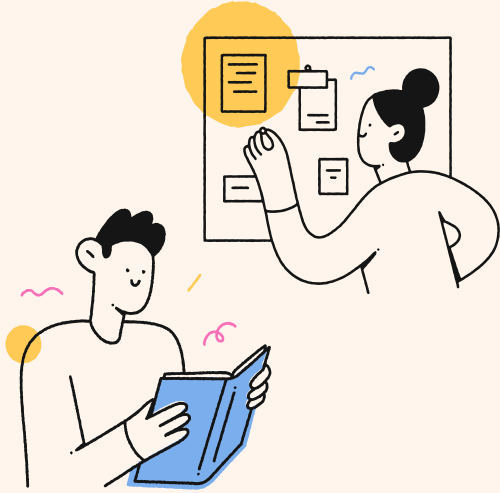
Missing alternative text for images

Missing form input labels


Empty links

Missing document language

Empty buttons



**"In the pursuit of digital excellence, accessibility isn't an option; it's an obligation—a bridge to a more inclusive digital realm."**



PASSION LED US HERE

A first-person perspective shot looking down at two pairs of feet standing on a grey paved surface. The text 'PASSION LED US HERE' is painted in large, bold, reddish-brown capital letters across the middle of the frame. The person on the left is wearing dark brown leather shoes, and the person on the right is wearing dark blue sneakers with white laces. The ground is composed of large, light grey rectangular tiles. In the top right corner, there is a bright orange, hand-painted mark that looks like a stylized 'C' or a checkmark. The scene is lit with natural light, creating soft shadows.

# Thank You!



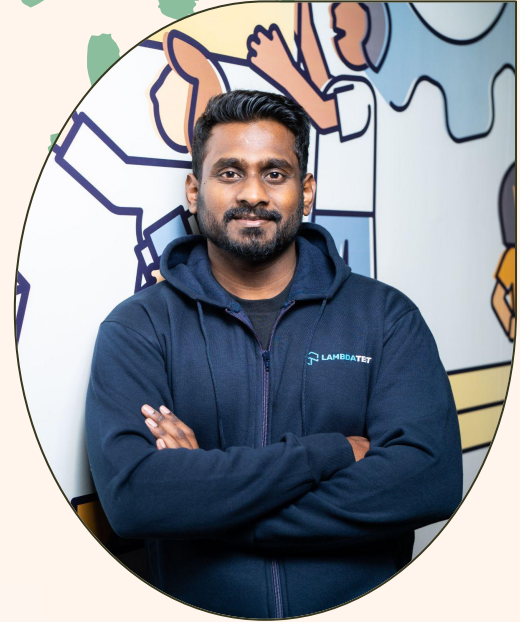
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