

# Designing for Everyone: Accessibility as a Core Value of Open Source

## Introduction

Free and open-source software (FOSS) is meant to be for everyone. But this promise often fails when accessibility (a11y) is overlooked. This proposal highlights the importance of integrating accessibility as a foundational principle in frontend development, especially within open-source ecosystems.

## Why Accessibility Matters

Accessibility is not just a feature?it is a right. By designing interfaces that exclude people with disabilities, we perpetuate inequality in technology. Incorporating a11y ensures that everyone, regardless of ability, can contribute to and benefit from software projects. It also improves the experience for all users.

## Tools and Technologies

The session will focus on using modern frontend tools to build accessible components:

- React: Leverage hooks and components that respect ARIA standards.
- Tailwind CSS: Utility-first classes help with semantic styling and responsive design.
- Storybook: Use `@storybook/addon-a11y` to visualize accessibility issues during development.
- axe-core: Integrate this tool to catch accessibility bugs automatically.
- eslint-plugin-jsx-a11y: Enforce best practices through your linter.
- Lighthouse: Audit accessibility metrics for performance and compliance.

## Practical Examples

Some of the practical case studies covered include:

- Creating a modal component with keyboard focus trapping and screen reader support.
- Refactoring tab components to support ARIA roles and keyboard navigation.
- Adding alt text, language tags, and headings hierarchy to a documentation site.
- Setting up CI pipelines to run axe-core and fail on a11y regressions automatically.

## Community and Inclusion

Accessibility is not only about code. It's also about how we work together:

# Designing for Everyone: Accessibility as a Core Value of Open Source

- Inclusive documentation: Writing in plain language and supporting translation tools.
- Empathetic reviews: Encouraging and educating contributors, especially newcomers.
- Welcoming environments: Supporting contributors with disabilities or from marginalized backgrounds.

## Conclusion

Making accessibility part of your workflow leads to better, more inclusive software. This session offers both practical tools and a mindset shift to help developers, maintainers, and contributors ensure that open source is truly open to everyone.