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Angular Accessibility

Alexander Thalhammer | @LX_T

About me



About me ...





... my office



Hi, it's me → [@LX_T](https://alex.thalhammer.name) 

<https://alex.thalhammer.name/>

- **Alex Thalhammer** from Graz, Austria (est. 1983)
 - **Angular Software Tree** GmbH (est. 2019)
- Web Dev for 23 years (I've come a long way baby)
- 2011 - 2017 WordPress Dev (Web, PHP & jQuery)
- Since 2017 **Angular Dev** (Web, TS, Rx - NG 4.0.0)
- Since 2020 **Angular Evangelist, Coach & Consultant**
 - Member of **Angular Architects** <https://www.angulararchitects.io/>



About me

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The background features a large, abstract architectural structure with a repeating grid of rectangular panels. A prominent feature is a central white circle with a textured, cloudy appearance, set against a dark purple gradient background.

About you



Tell us sth about yourself

- Hi, my name is ...
- I currently work on ...
- Accessibility is ...
- My goal(s) for today is (are) ...

About you



Let us know about your

- OS
 - Mobile OS?
- Browser
- IDE (IntelliJ/WebStorm vs VS Code)
- ?



About your team / projects

- Before I tell you sth about our workshop ☺

About this workshop

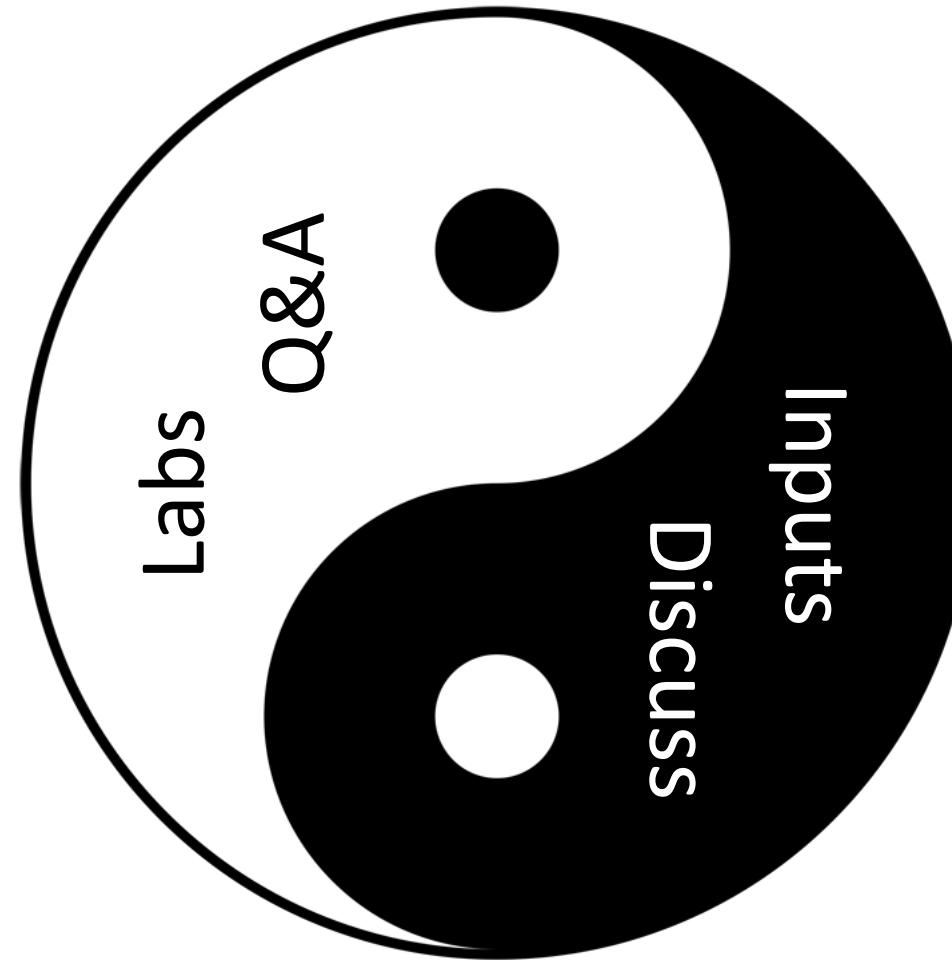


Every participant should

- understand the ***importance*** of accessibility
- know how to ***measure*** the accessibility
- know how to ***tweak*** the accessibility
- become a ***accessibility evangelist*** in her/his project/team/company

My goals

Didactics



We work together I

- Don't hesitate to interrupt me at **ANY TIME**
 - Questions
 - Remarks or
 - Feedback 😊
- Somebody else might have the same **question**
 - Be a hero and ask it



We work together II

- Remote: Please turn camera on ***ALL THE TIME***
 - Necessary for me to get your feedback
 - This will also improve the workshop for all 😊

Timetable (approx.)

- 09:00 – 12:15 (incl. 15m ☕ break)
- 1hr 🍲 break
- 13:15 – 16:30 (incl. 15m ☕ break)
- Feedback
- Including expected delay we will end at 17:00 latest 🏁
- Q&A

What does accessibility (A11y) mean?

- What did you say?
- "**Accessibility** is the design of products, devices, services, vehicles, or environments so as to be usable by people with disabilities. The concept of accessible design and practice of accessible development ensures both "direct access" (i.e. unassisted) and "indirect access" meaning compatibility with a person's assistive technology (for example, computer screen readers)."
-- <https://en.wikipedia.org/wiki/Accessibility>

What does accessibility (A11y) mean?

- What does Google say?
- "An accessible site is one whose content can be accessed regardless of any user's impairments and whose functionality can also be operated by the most diverse range of users possible."
- "As developers, it's easy to assume that all users can see and use a keyboard, mouse, or touch screen to interact with your page. This can lead to an experience that works well for some people but creates issues for others that range from simple annoyances to complete blockers."
-- <https://web.dev/articles/what-is-accessibility>



Why A11y?

- What would you say?

Why?

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Why A11y?

| | 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 |

Why?

Inclusive
A Microsoft Design Toolkit

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Topics

01: A11y
Tools

03: A11y
Standards

05: A11y in
Angular

02: A11y
Foundations

04: A11y
Best Practices

06: A11y
Conclusions

Labs (not in the same order :-))

01: Setup A11y
Testing Tools

03: Semantic
HTML & Structure

05: Forms
& LiveAnnouncer

02: Angular
Router

04: Keyboard
Nav & Tab Focus

06: Color &
Contrast

Setup for Labs

- NodeJS version **18.13.x** (and higher 18) or 20.9.x (and higher 20)
 - NodeJS version 14 dropped in NG 16, version 16 dropped in NG 17

Actively supported versions

This table covers [Angular versions under active support](#).

| ANGULAR | NODE.JS | TYPESCRIPT | RXJS |
|------------------|---|-----------------------------------|-------------------------------|
| 17.0.x | <code>^18.13.0 ^20.9.0</code> | <code>>=4.9.3 <5.3.0</code> | <code>^6.5.3 ^7.4.0</code> |
| 16.1.x 16.2.x | <code>^16.14.0 ^18.10.0</code> | <code>>=4.9.3 <5.2.0</code> | <code>^6.5.3 ^7.4.0</code> |
| 16.0.x | <code>^16.14.0 ^18.10.0</code> | <code>>=4.9.3 <5.1.0</code> | <code>^6.5.3 ^7.4.0</code> |
| 15.1.x 15.2.x | <code>^14.20.0 ^16.13.0 ^18.10.0</code> | <code>>=4.8.2 <5.0.0</code> | <code>^6.5.3 ^7.4.0</code> |
| 15.0.x | <code>^14.20.0 ^16.13.0 ^18.10.0</code> | <code>~4.8.2</code> | <code>^6.5.3 ^7.4.0</code> |

Try "node -v"

Use NVM ☺

Mac Alternative: Use Homebrew 

Setup for Labs

- Git
 - Personally I liked to use Sourcetree
 - but looking to migrate to Git Tower / GitKraken / Fork
- IDE: VS Code (free) or IntelliJ/WebStorm (not free, but better IMHO)
 - Personally I prefer IntelliJ/WebStorm
- Chrome (or Chromium based alternative)
 - Other browsers are okay for private matters ☺

Recommendations

- Use prettier
 - especially for .ts files
- Use ESLint
 - in your IDE of choice and/or from terminal
- Use Git
 - we recommend to at least commit after every lab
 - easier switching back and forth with my solution

Starter Kit

- Incl. Slides
- And Labs (exercises)
- Clone from <https://github.com/L-X-T/ng-a11y>

The background features a perspective view of a modern building's facade, composed of a grid of glass panels. A large, solid white circle is positioned in the center of the image, partially overlapping the building's structure.

Ready for takeoff