



ANGULAR
ARCHITECTS

Angular Material & CDK

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Angular Material, CDK & ARIA and other Design Systems

- Angular Material
- Angular CDK
- Angular ARIA
- Accessible Rich Internet Applications
- WAI ARIA
 - Roles
 - Attributes
 - States
 - Properties

Agenda

Angular Material

- [Angular Material](#) library is a suite of reusable UI components that aims to be fully accessible
- If you're building your own Design System, you can copy what Angular Material is doing
- or even fork Angular Material 😊



Demo

Showcase NG Material

Angular CDK

- [Angular CDK](#) includes the [a11y package](#) that provides tools to support various areas of accessibility
 - *LiveAnnouncer* is used to announce messages for screen-reader users using an aria-live region

```
this.liveAnnouncer.announce('Flights loading error');
```

- *cdkTrapFocus* directive traps Tab focus in an element

```
<div class="gdpr-dialog" cdkTrapFocus>
  <!-- Yay, focus won't leave this element! -->
</div>
```



Demo

LiveAnnouncer Demo

Angular ARIA

- Angular ARIA
 - a package designed to help Angular devs build accessible, custom-styled UI components
 - headless directives
 - manages complex accessibility behaviors like
 - keyboard interactions
 - ARIA attributes
 - focus management and
 - screen reader support

```
npm install @angular/aria
```

Angular ARIA – 12 directives

- Search & selection
 - [Autocomplete](#), [Listbox](#)
 - [Select](#), [Multiselect](#), [Combobox](#)
- Navigation & CTAs
 - [Menu](#)
 - [Menubar](#), [Toolbar](#)
- Content organization
 - [Accordion](#)
 - [Tabs](#)
 - [Tree](#)
 - [Grid](#)



Demo

Showcase NG Aria



UI Components in NG

- Augmenting native elements
 - Native HTML elements capture several standard interaction patterns that are important to A11y
 - When authoring NG components, you should re-use native elements
 - Instead of creating a custom element for a new variety of button, create a component that uses an attribute selector with `<button>`
 - This most commonly applies to `<button>` and `<a>`, but can be used with many other elements
 - Example: [MatButton](#)



UI Components in NG

- Using containers for native elements
 - Sometimes using the appropriate native element requires a container element
 - E.g., the native `<input>` element cannot have children, so any custom text entry components need to wrap an `<input>` with extra elements
 - Example: [MatFormField](#)

Design Systems

- Prime NG
 - <https://primeng.org/guides/accessibility>
 - <https://blocks.primeng.org/#/application/sidebarlayout>
- NG Zorro (Ant Design)
 - <https://ng.ant.design/components/overview/en>
- A11y experts
 - Canopy <https://github.com/Legal-and-General/canopy>
 - Clarity <https://clarity.design/>
 - KoliBri <https://public-ui.github.io/docs/components/>
- Use Angular CDK & ARIA with all of them ☺

The background of the slide features a photograph of a modern architectural structure, likely a glass and steel building, viewed from a low angle looking up. The sky above is a vibrant red, creating a dramatic contrast with the building's facade.

Questions?