



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

# 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 😊



Questions?