

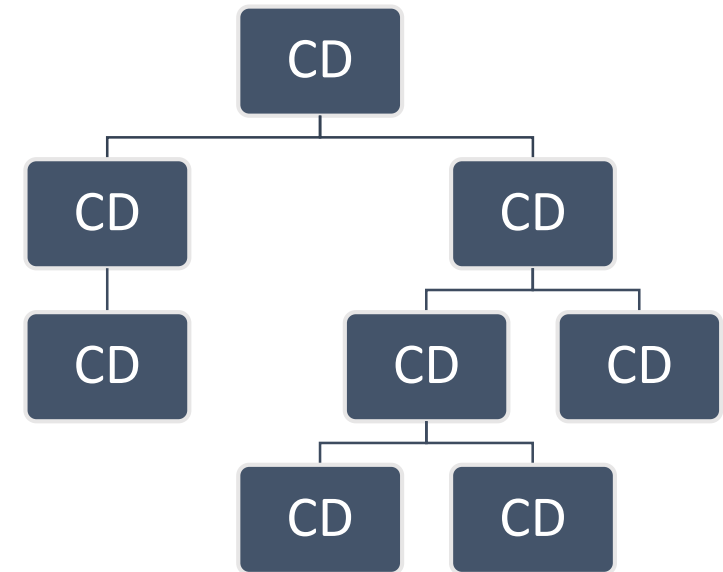
Zone.js and Change Detection

Zone.js

- Provides a mechanism, called zones, for encapsulating and intercepting async activities in a browser (setTimeout, promises)
- Angular *NgZone* service is based on Zone.js, which is used to automatically trigger change detection as a result of async operations/activities

Change Detection (CD)

- A technique to detect changes in angular app component and then automatically re-render the view to reflect that change
- Every component has its own change detector which is generated at run time to improve performance
- CD is unidirectional and makes a single pass in component tree from top to bottom, when one of the components change

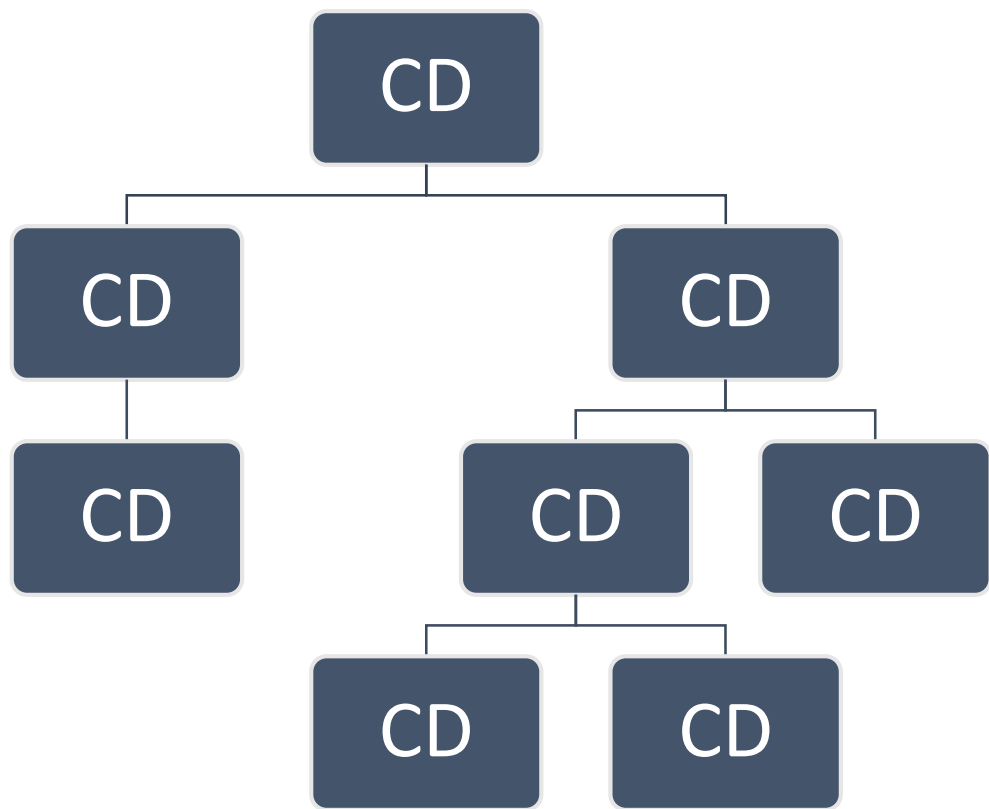


Change Detection Strategies

- Default
 - The change detector's mode is set to *CheckAlways*
 - Update the component every time when data change
- OnPush
 - The change detector's mode is set to *CheckOnce*
 - Update the component only when its inputs change or the component requested to be updated

Change Detection Strategies Contd.

Default Strategy



Change Detection Flow

OnPush Strategy

