



NgRx Store

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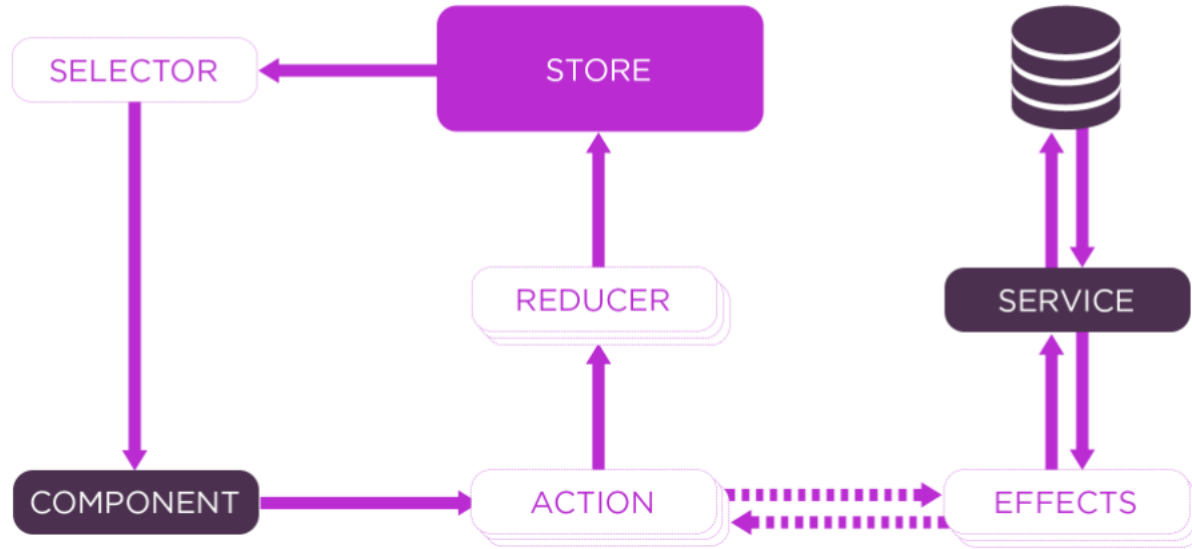


What is NgRx Store?

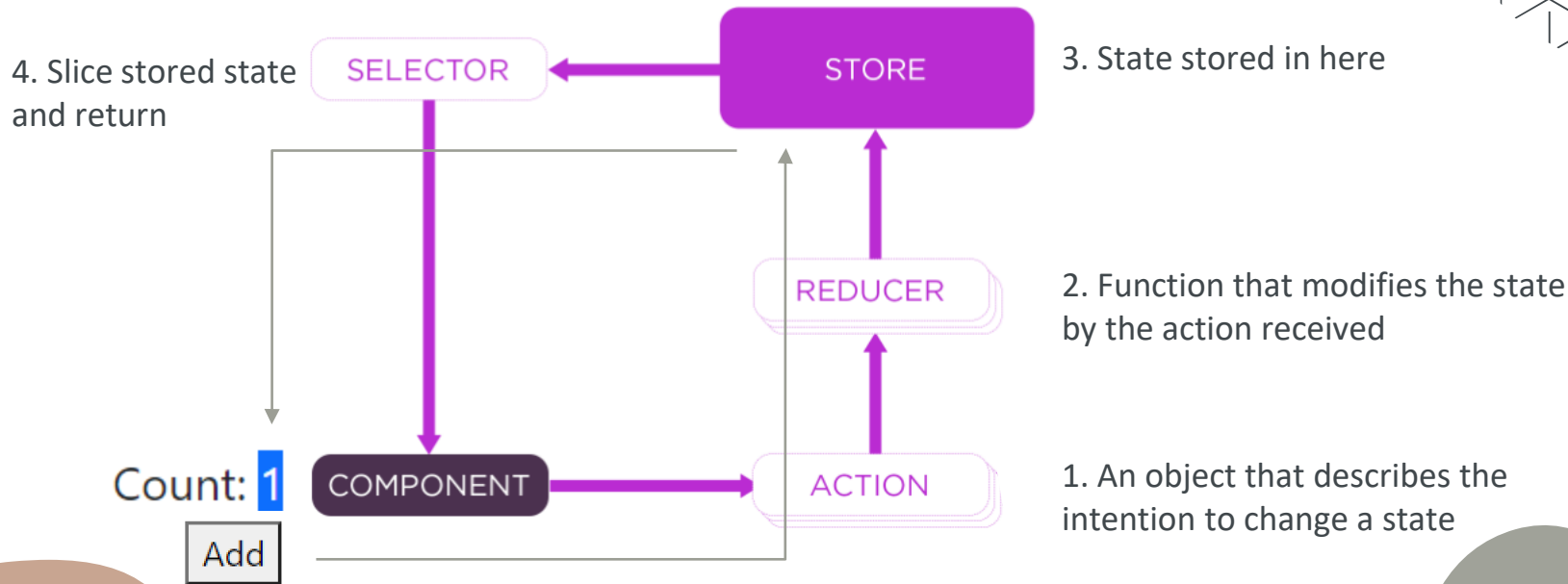
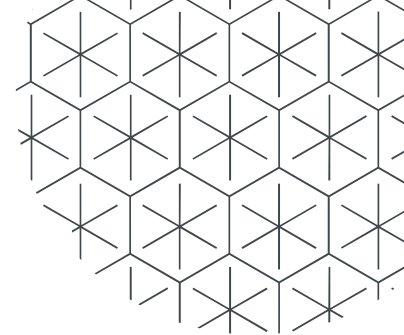
A *global state management* for Angular applications



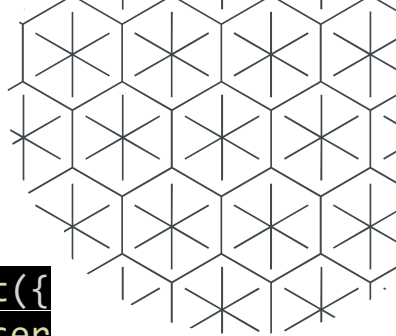
State Management Lifecycle



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State Management Lifecycle



Slice stored state
and return

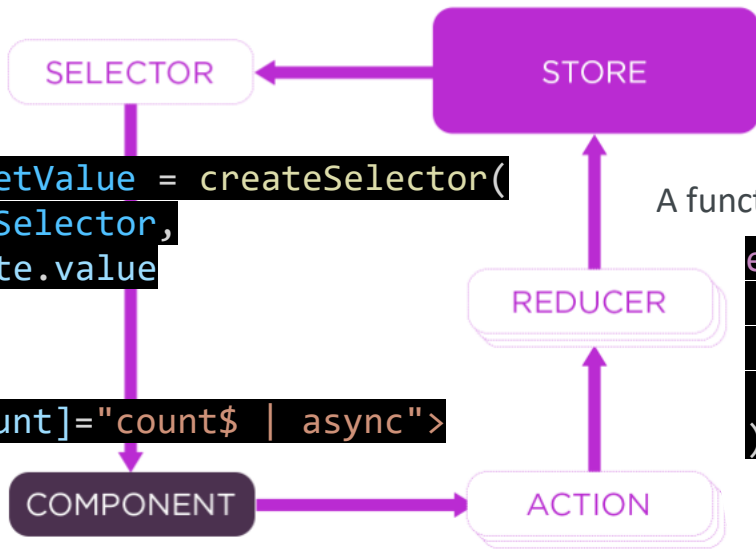
```
export const getValue = createSelector(  
  countFeatureSelector,  
  state => state.value  
);
```

```
<app-count [count]="count$ | async">
```

Count: 1

Add

```
this.store.dispatch(add());
```



State stored in here

```
StoreModule.forRoot({  
  count: countReducer  
})
```

A function that modifies the state by the action received

```
export const reducer = createReducer(  
  initialState,  
  on(add, (state) => state + 1),  
  on(...)  
);
```

An object that describes the intention to change a state

```
export const add = createAction('Add');
```

Redux DevTools

Inspector

filter... Commit

@ngrx/store/init 2:24:19.32

[Basic Counter] Increment +30:01.66

[Advanced Counter] Increment +30:21.92

2. Actions

State Action State Diff

Tree Chart Raw

basicCount (pin): 1

advancedCounter (pin)

ids (pin): []

entities (pin): {}

value (pin): 2

3. Store

4. Reducer

5. Selector

6. Manually dispatch actions

Dispatch

Counter

Basic

Advanced

Current Count: 2

1. Component

Increment

```
{
  type: "[Advanced Counter] Increment",
  change: 1
}
```

5. Selector

7. Props

Demo



Why NgRx?

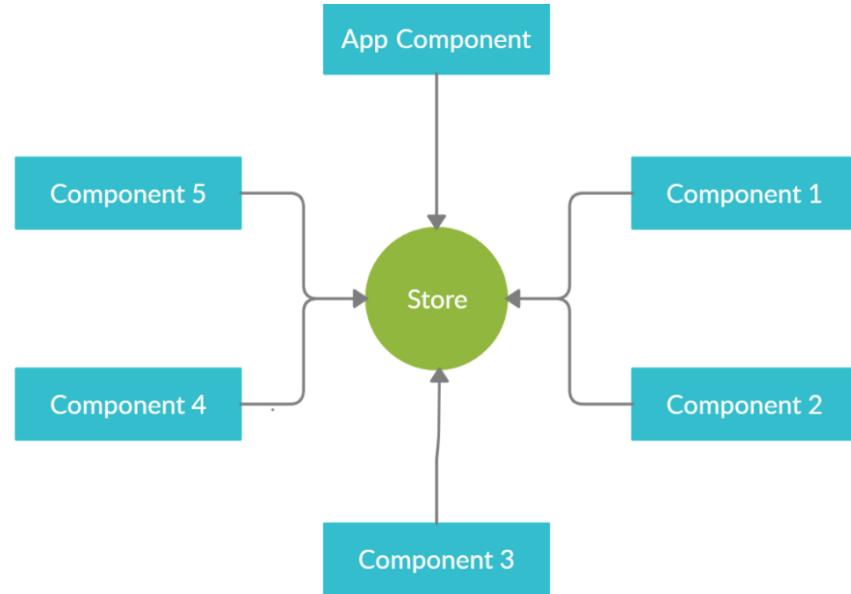
Benefits

01 Single Source of Truth

App state stored in a single **store**

The store is responsible for storing and providing data to components when requested

→ easier to debug/inspect app



Benefits

02 Immutability

Cannot directly change state

Must be through dispatching
an **action**

→ centralized way of changing
the state

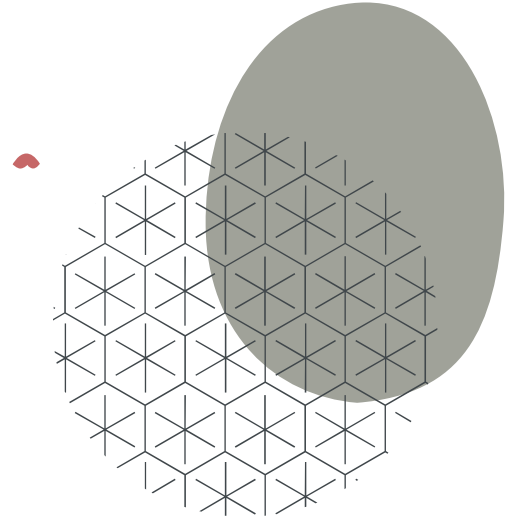
03 Performance

Selectors are memoized

i.e. won't be called unnecessarily
unless data in the store changes

→ performance boost

When To Use?



When To Use

01

When **multiple components** access the same app state

02

When working on a **large app with many people**

03

When app state is **updated frequently**





State Management in Frameworks



Redux

React



VueX

Vue



Widget Factory

jQuery

The slide features several large, abstract organic shapes in the background: a light gray shape in the top right, a brown shape in the bottom left, and a light beige shape in the bottom center.

References & Resources

- Documentation
 - <https://ngrx.io/guide/store>
- Articles
 - <https://betterprogramming.pub/angular-getting-started-with-ngrx-75b9139c23eb>
 - <https://indepth.dev/posts/1456/a-journey-into-ngrx-selectors>
 - <https://www.jobsity.com/blog/why-and-when-you-should-use-redux>
- Redux Devtools
 - <https://chrome.google.com/webstore/detail/redux-devtools/lmhkpmbekcpmknklioebfkpmmfiblj?hl=en>



Thank you for Listening!

