

# Modern State Management with NgRx and Signals



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# Using NgRx Entity for Collections



**NgRx Entity is a library designed to help you manage collections of data within your NgRx store in a normalized and efficient way.**



# Normalized State

In NgRx Entity, "normalized" means storing data by ID like a database.

## State

```
const state = {  
  users: [  
    { id: 1, name: 'Alice' },  
    { id: 2, name: 'Bob' }  
  ]  
};
```

## Normalized state

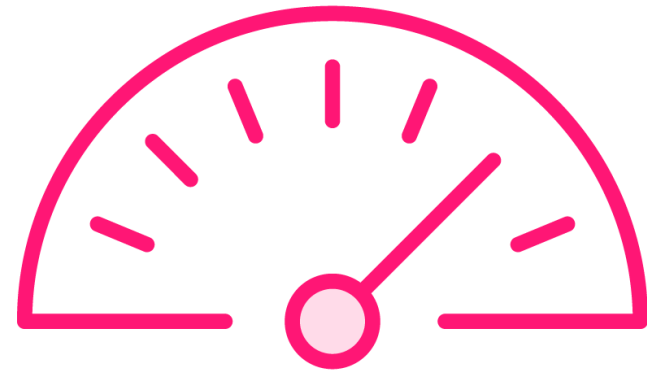
```
const state = {  
  users: {  
    entities: {  
      1: { id: 1, name: 'Alice' },  
      2: { id: 2, name: 'Bob' }  
    },  
    ids: [1, 2]  
  }  
};
```



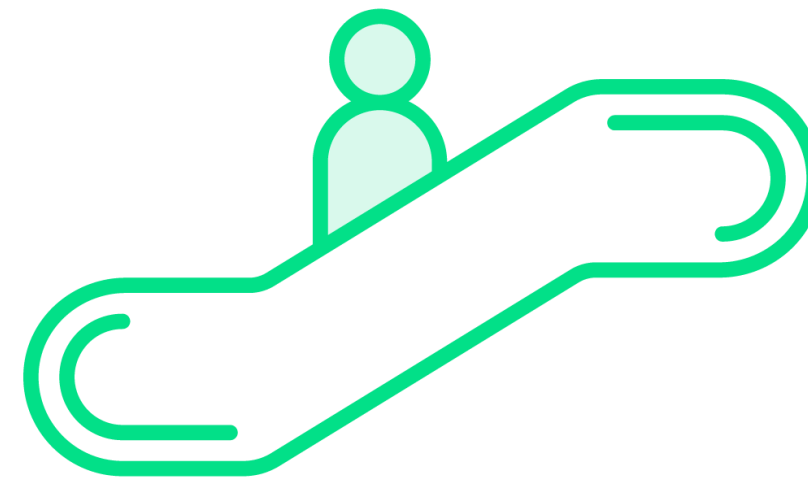
# Why Use NgRx Entity?



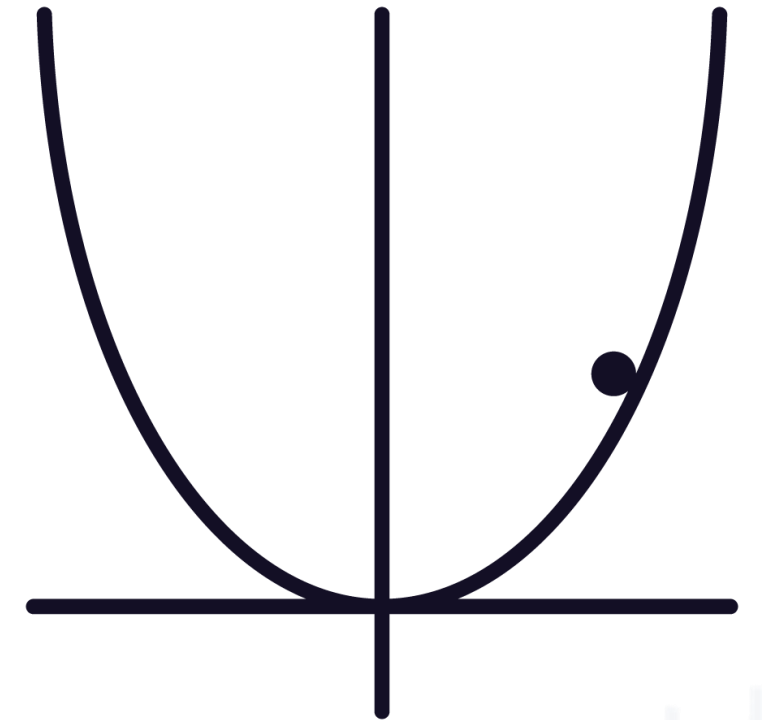
**Reduces  
boilerplate**



**Improves  
performance**



**Simplifies state  
management**



**Improves  
predictability**





# Demo: Using NgRx Entity for Collections

Using NgRx Entity for the application tasks





# Introduction to Angular Signals



**Angular Signals are a reactive primitive that wraps a value and notifies interested consumers when that value changes.**





# Angular Signals



**Fine-grained reactivity**

**Simplified reactivity**

**Improved performance**

**Better developer experience**



# Angular Signals

Writable signals

Computed signals





# **Demo: Angular Signals**



# Integrating Signals with NgRx Selectors



# Why Integrate Signals with NgRx Selectors?



Automatic template updates

Reduced boilerplate

Leverages new reactivity

Cleaner code



# Demo: Integrating Signals with NgRx Selectors





# Course Summary

## Introduction to state management

- What is state in Angular?
- Local vs Global state
- Services for shared state

## Upgrading state management to NgRx

- What is and why use NgRx?
- Setting up NgRx store, actions, reducers
- Selecting state with selectors
- Handling side effects

## NgRx and Signals

- Using NgRx entity for collections
- Integrating signals with NgRx selectors



# Thank you for your time!

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