

Redux - @ngrx/*

5. @ngrx/entity

Entity

- An entity represents some sort of business data
- We usually define an **interface**, **type**, or **class** for our entities
- It's often the case where we get the entities from a server
- We often need to manage an array of entities

```
// an entity example
export interface TodoTask {
  id: number;
  title: string;
  description: string;
}
```

- When you need to hold a list of items in your state there will probably be common repeating actions you would like to perform on that list
 - Set the list
 - Add item
 - Delete item
 - Update item
 - etc.
- If you have more than one list you will notice a lot of repeating code in the action, reducers of those lists.
- @ngrx/entity helps you deal with lists in your state while avoiding the need to duplicate your code

EntityAdapter

- Contains common methods for dealing with collection in the state
- You create an adapter for your collection using ht method **createEntityAdapter**
- You will get an object with a bunch of common methods you can perform in the reducer on your collection

```
export interface EntityStateAdapter<T> {  
  addOne<S extends EntityState<T>>(entity: T, state: S): S;  
  addMany<S extends EntityState<T>>(entities: T[], state: S): S;  
  setAll<S extends EntityState<T>>(entities: T[], state: S): S;  
  removeOne<S extends EntityState<T>>(key: string, state: S): S;  
  removeMany<S extends EntityState<T>>(keys: string[], state: S): S;  
}
```

@ngrx/entity - ex

- We have a list of todo items that we want to grab from a server and place in the state
- <https://nztodo.herokuapp.com/api/task/?format=json>
- Manage that list using @ngrx/entity

Adapter

- The adapter contains methods to manage the list in the state
- We use those methods in the reducer in response to certain actions we define
- The adapter can also help us create the initial state using **getInitialState()**

Summary

- @ngrx/entity provides us with adapter which helps us perform common actions on a collection
- It will help us avoid repeating code and manage the collection in our state

Thank You

Next Lesson: 6. `@ngrx/data`