NGRX is an open source library that has been modelled after Redux, which is also an open source library that has state containers that can be utilized by JavaScript. (Fain & Moiseev, 2019) NGRX is very similar to Redux “it implements a unidirectional data flow and has a store, actions and reducers.” And utilizes RxJS’s way to be able to send notifications or even subscribe to notifications. (Fain & Moiseev, 2019) It is able to manage app state for Angular. Our book describes ngrx “as a client-side messaging system” which in large applications their messaging service is often on the service side. Once the user clicks the button the application will then send the message, app state changes and now ngrx Store will send a message to whoever the subscribers are. (Fain & Moiseev, 2019) NGRX is able to solve high level problems such as being able to share data between components and it is a global sate for reusing data. (Roos, 2022)

With ngrx the app sate is utilized through the Store service. (Fain & Moiseev, 2019) The Store service state is observable and can observe actions. You are able to declare Store as follows:

Class Store<T> extends Observable<T> implements Observer<Action>

You are also able to use effects which is used for communication among parts of the app, parts such as an HTTP request. (Fain & Moiseev, 2019) The other parts to ngrx besides Store and effects are actions, reducers, or selectors. Actions are events that are unique to our web application such as how the user interacts with a web page or network interactions. (Roos, 2022) A reducer is used for state transitions from Store. And a Selector “gives you slices of a store state” (Roos, 2022)

Reference:

Roos, P. (2022, September 17). *What is NgRx and why is it used in Angular apps?* workingsoftware.dev. Retrieved July 17, 2023, from https://www.workingsoftware.dev/what-is-ngrx-and-why-is-it-used-in-angular/

Fain, Y., & Moiseev, A. (2019). *Angular Development with TypeScript* (2nd ed.). Manning.