RxJS: The Big Picture

-Rx stands for Reactive Extensions API aka Reactive X aka Rx

-API for asynchronous programming with observable streams (the data flows into your app)

-RxJS is the Javascript implementation of the Reactive Extension API

What problems does RxJS solve?

-provides a single API that facilitates and simplifies the processing of data from multiple/ sources

-Many different types of streams of data is processed a little differently in plain JS.

-RxJS helps you deal with these disparate data sources and the multiple ways they might be processed by giving you a single clean API you can use with all of them

-Named observable because the reactive extensions get their conceptual foundation from the observer software development pattern

A red and orange arrow pointing to a red object

Description automatically generated

-Observable pushes value to a single observer?

-Register an observer to receive the values from an observable by calling a method on the observable named subscribe

-The observer that should receive the value is passed as a parameter to the subscribe method

A diagram of a diagram

Description automatically generated with medium confidence

-The observable sends values to the observer by calling methods on the observer object itself

-Once the observer is subscribed to the observable, the first value can be pushed to the observer by calling next

-Operators are functions that manipulate the data produced by an observable and return a new observable

Library

-supplemental pieces of functionality

-solve specific problems but doesn’t dictate the overall architecture of your app

Frameworks

-much larger and prescriptive



-$ is a convention when using RxJS to store observables

-from will create an observable

Subjects: let you produce values for multiple observers

Schedulers: gives fined grained control over when your observables are executed

A diagram of an object

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Subjects

-similar to observables

-can push to multiple observers (multicast)

-Observables can only produces values to a single observer (unicast)

A close up of a sign

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-Observables can be configured with schedulers to control the execution context for the observable

-Only have to worry about schedulers if you want to do something very precise

A screen shot of a computer program

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-Observables will never call error and complete