NX & MICRO FRONTENDS

CONCEPTS

DDD

MODULE FEDERATION

What is and why NX?

What is NX?

Nx is a suite of powerful, extensible dev tools that help you develop, test, build, and scale Angular applications with fully integrated support for modern libraries like Jest, Cypress, ESLint, NgRx, and more.

Why NX?

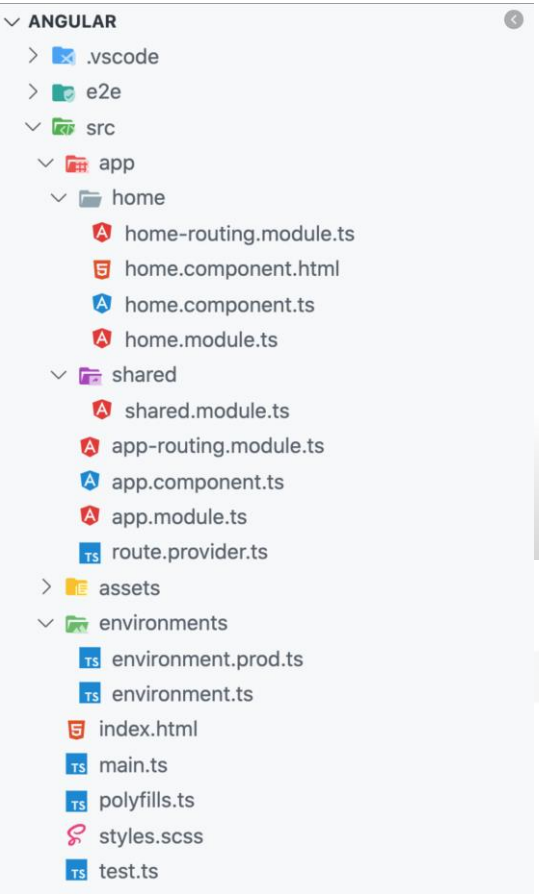
1. Drive good architecture

2. Modern Tools

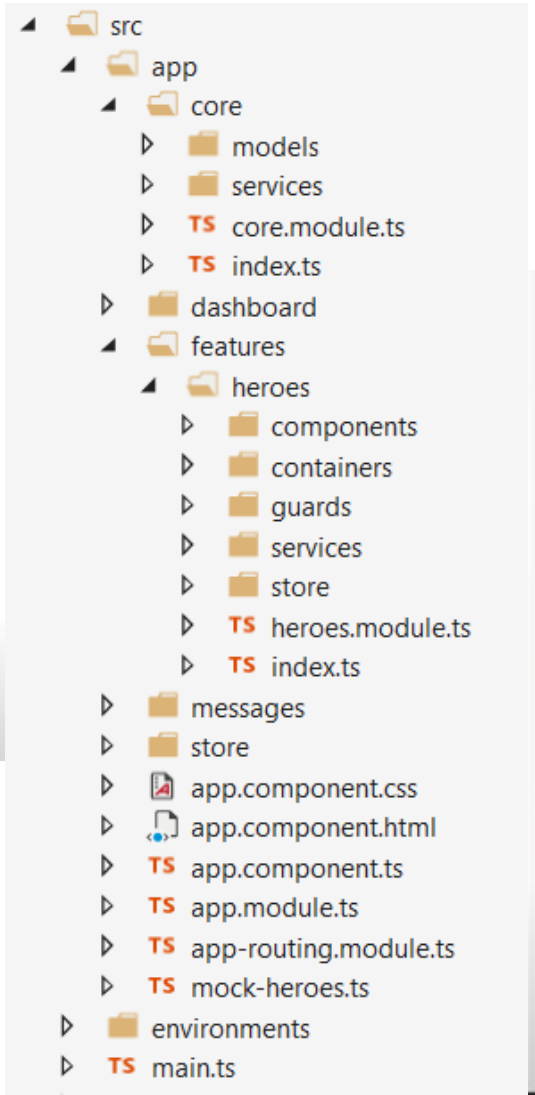
3. Scalability & speed

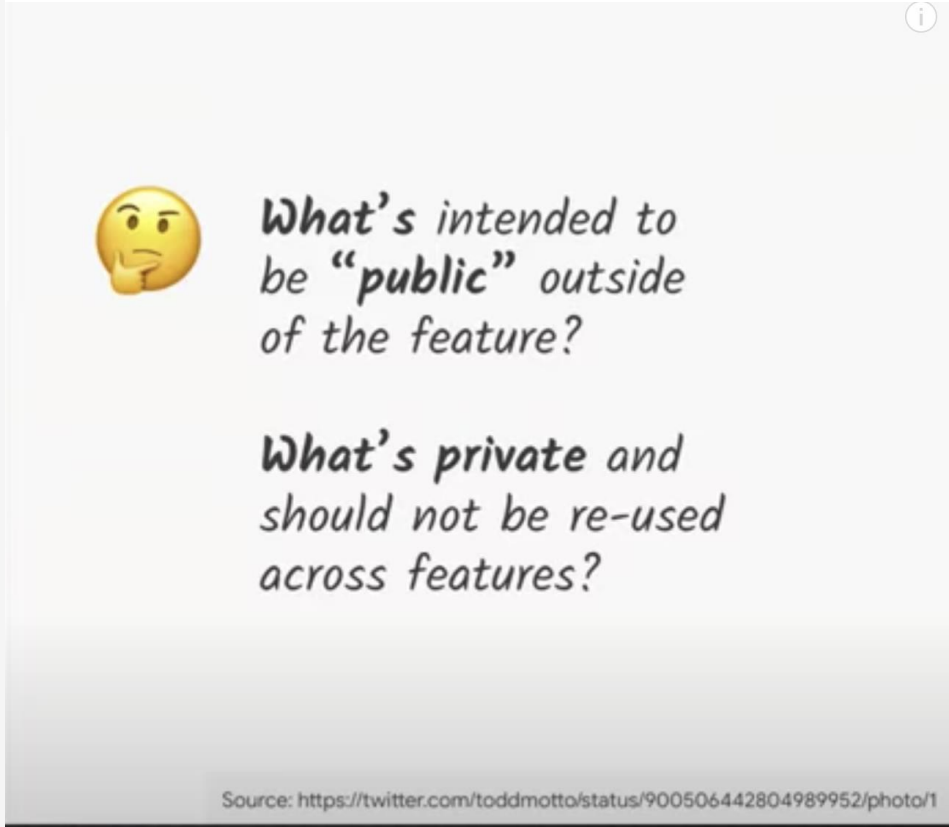
1. Good Architecture

Common angular/cli architecture

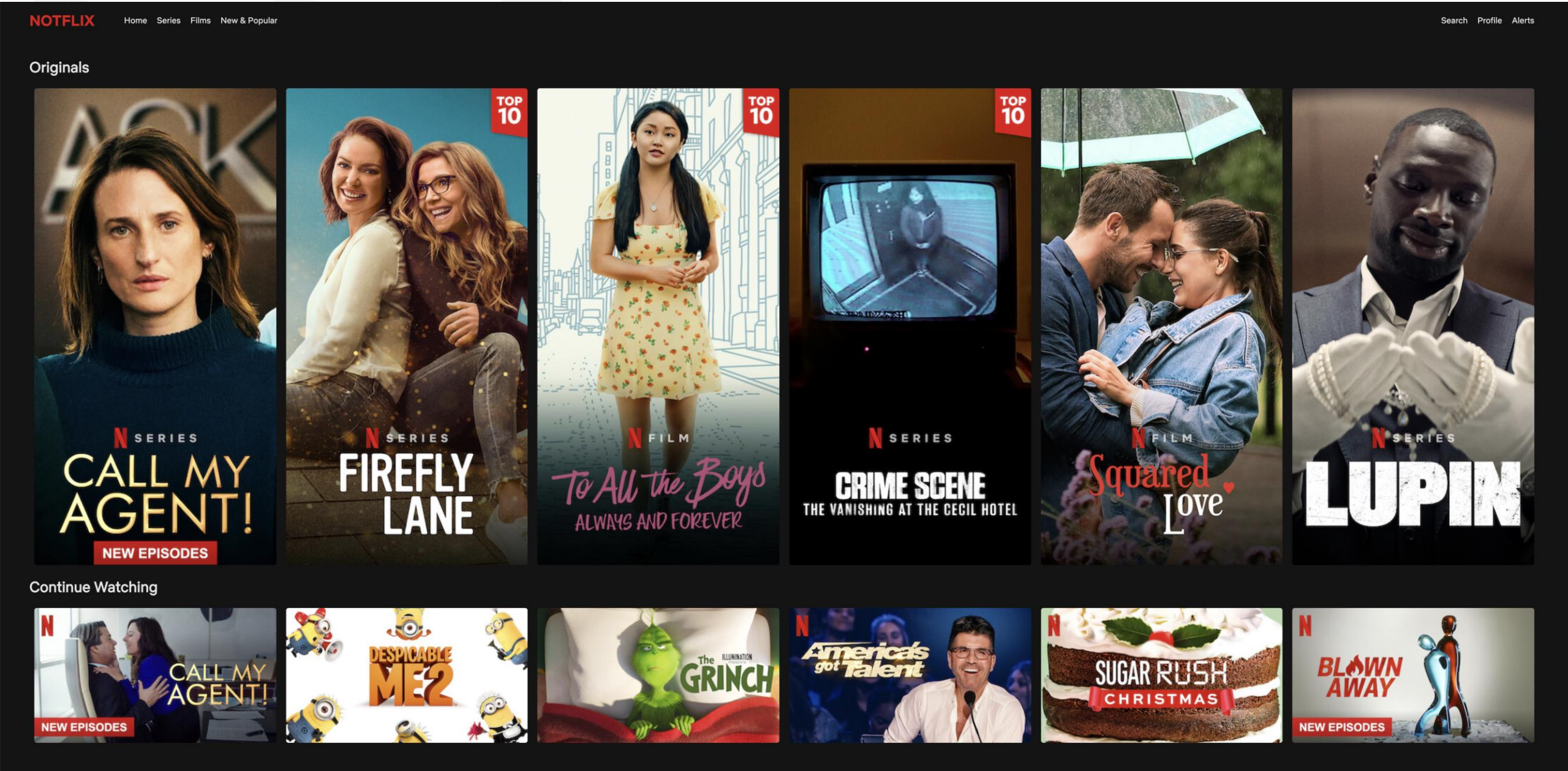


*One big **monolith** with a set of **folders**, functioning **as feature boundaries***





Demo App - DDD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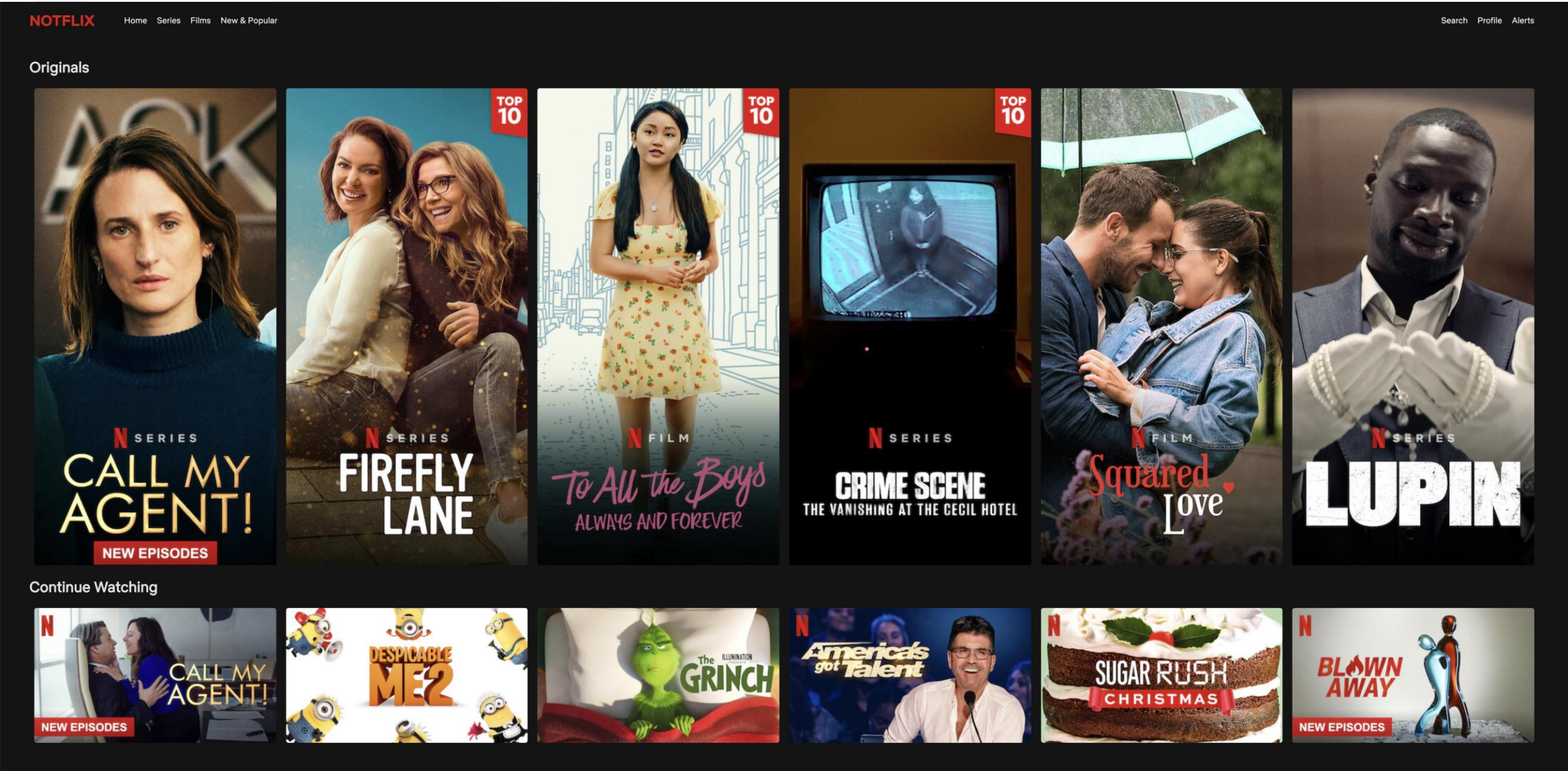
Demo App - DDD

[Domain-Driven Design and Angular | Manfred Steyer]



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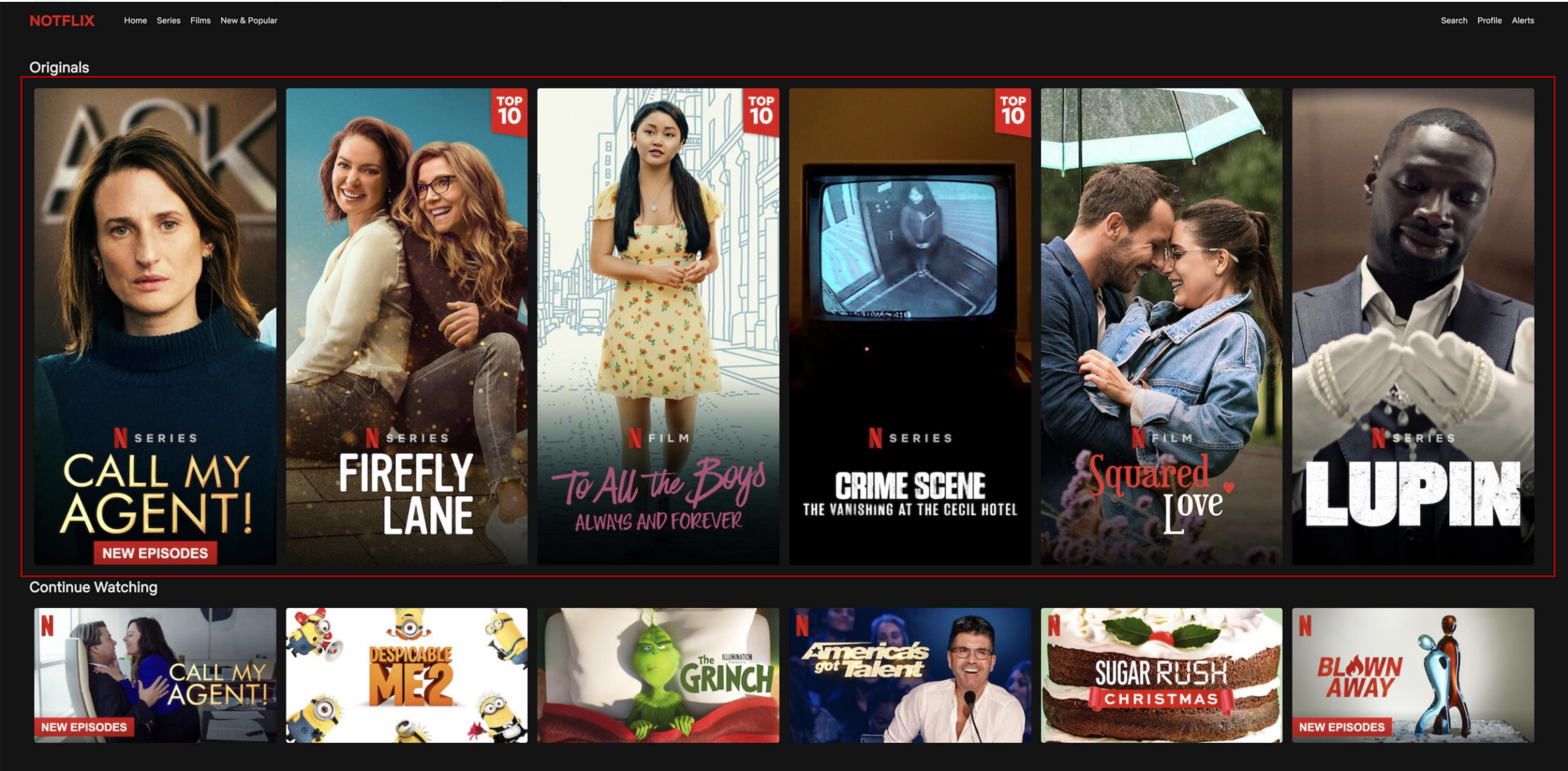
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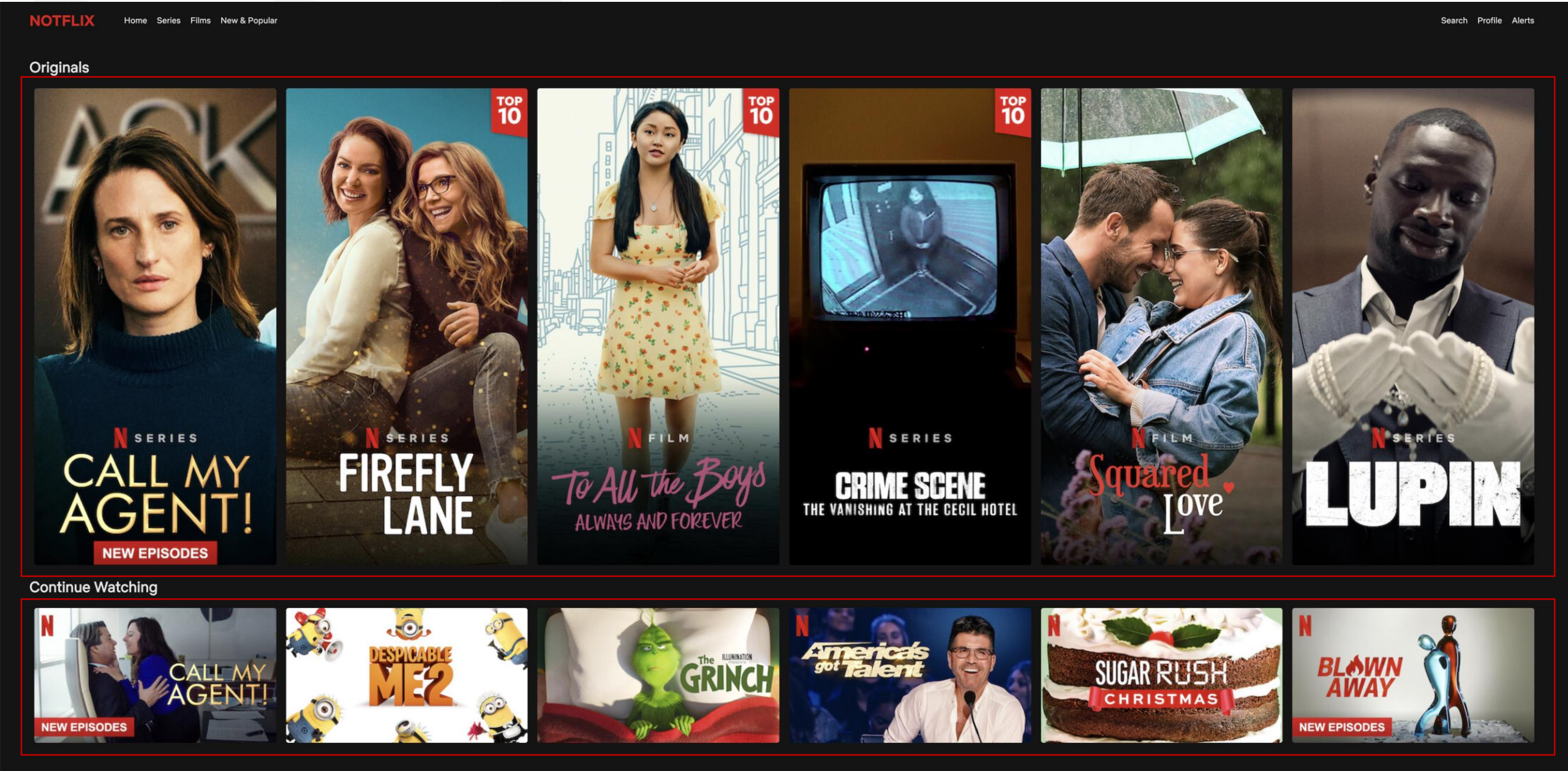
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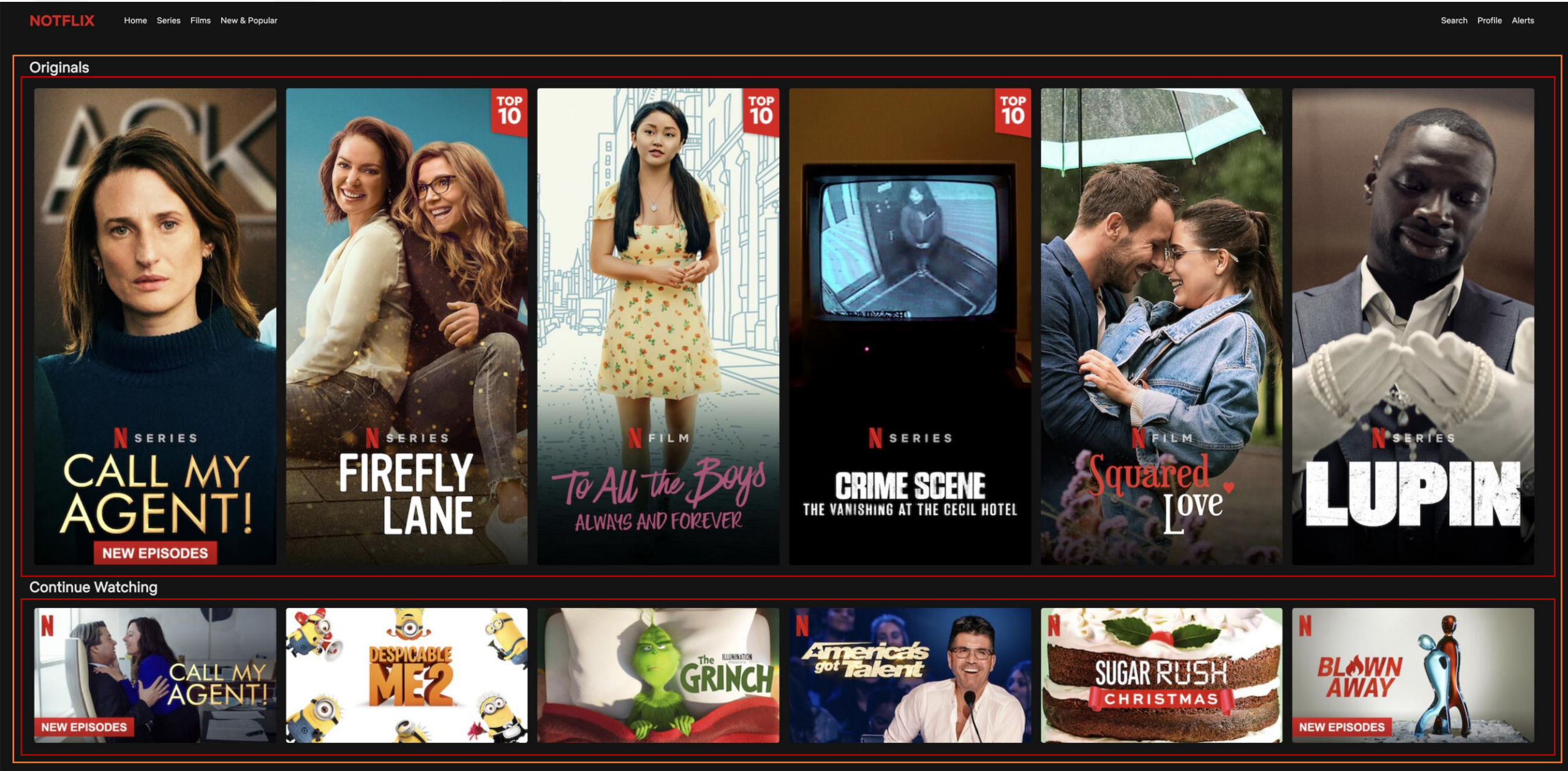
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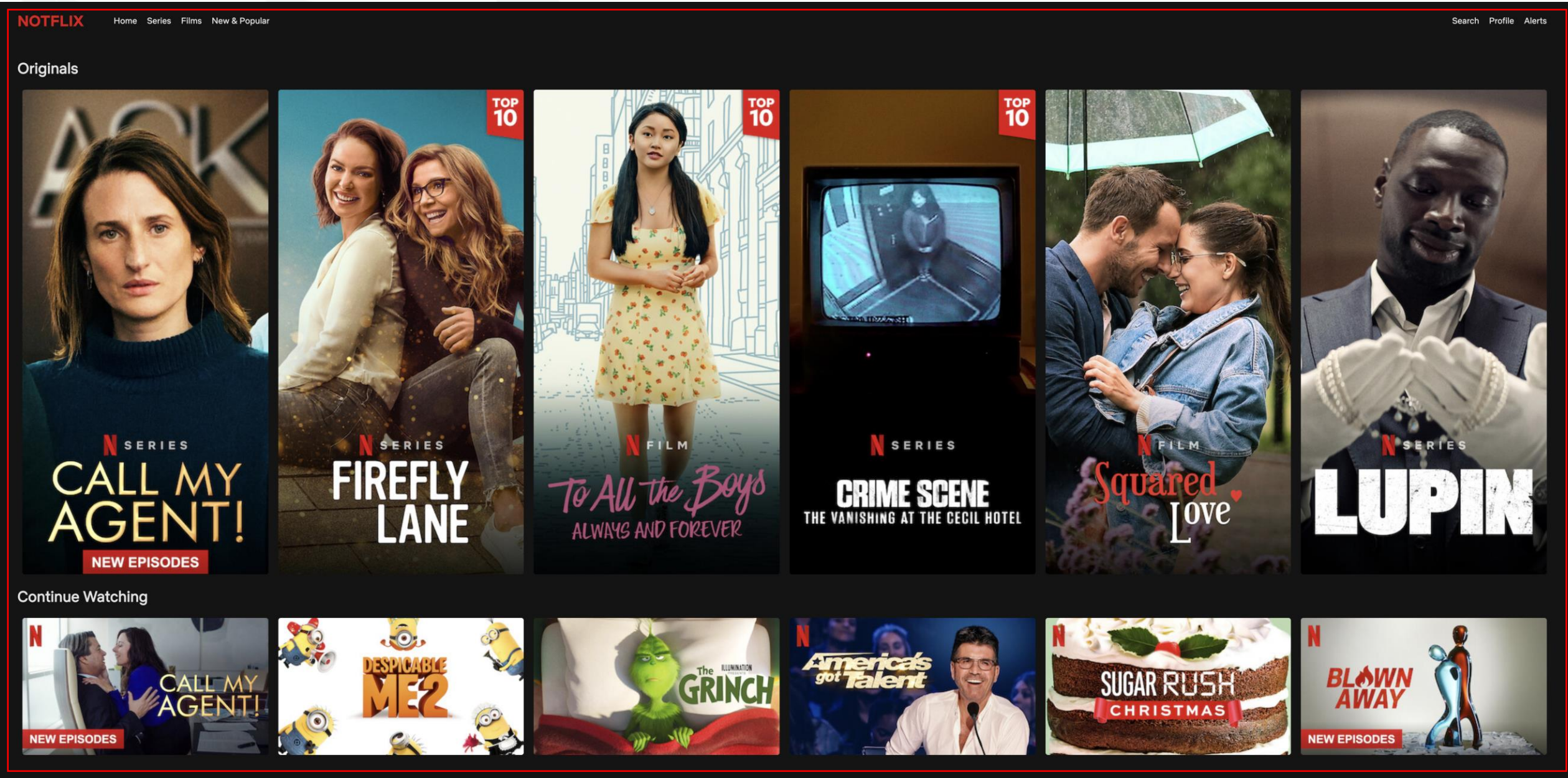
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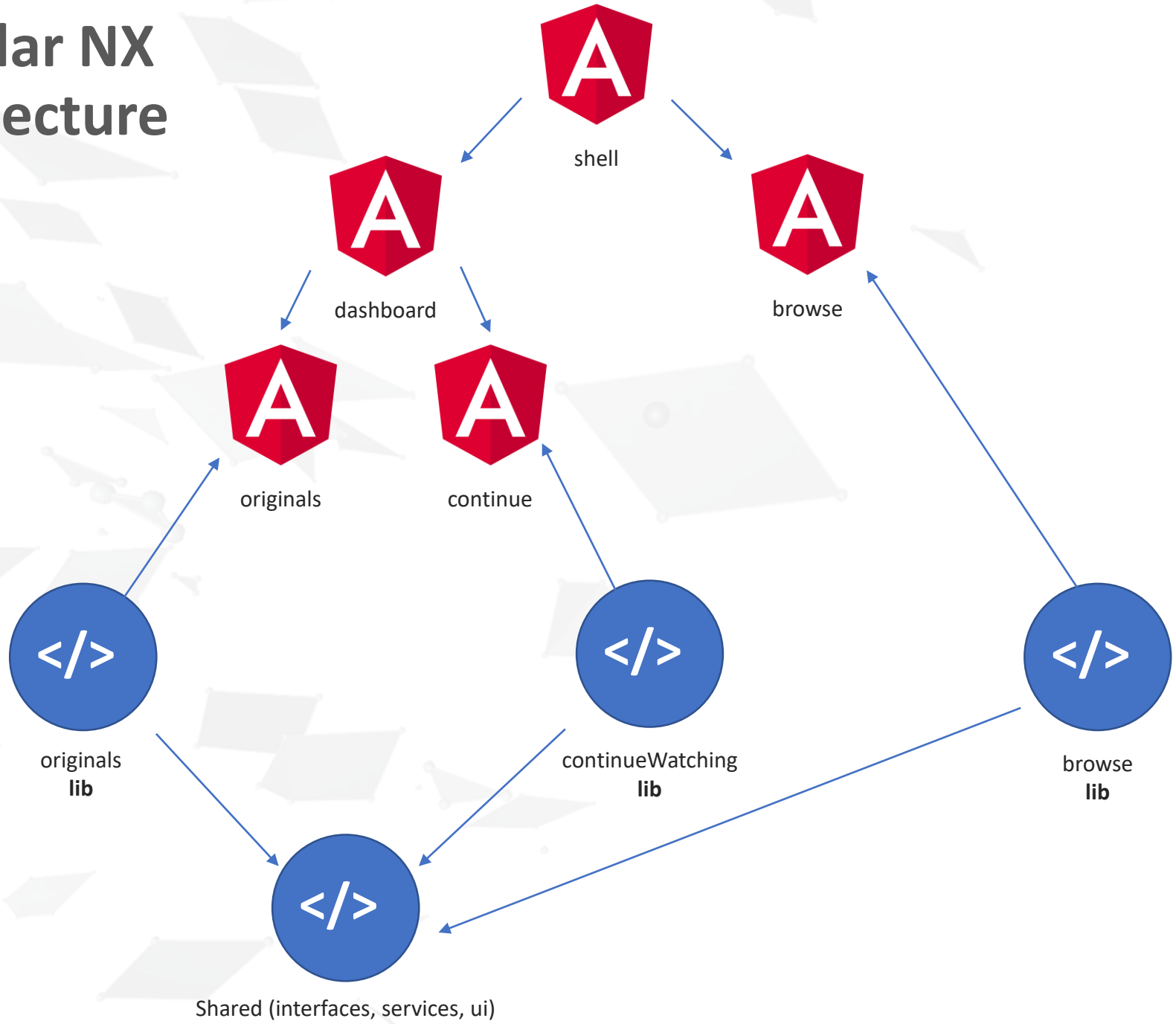
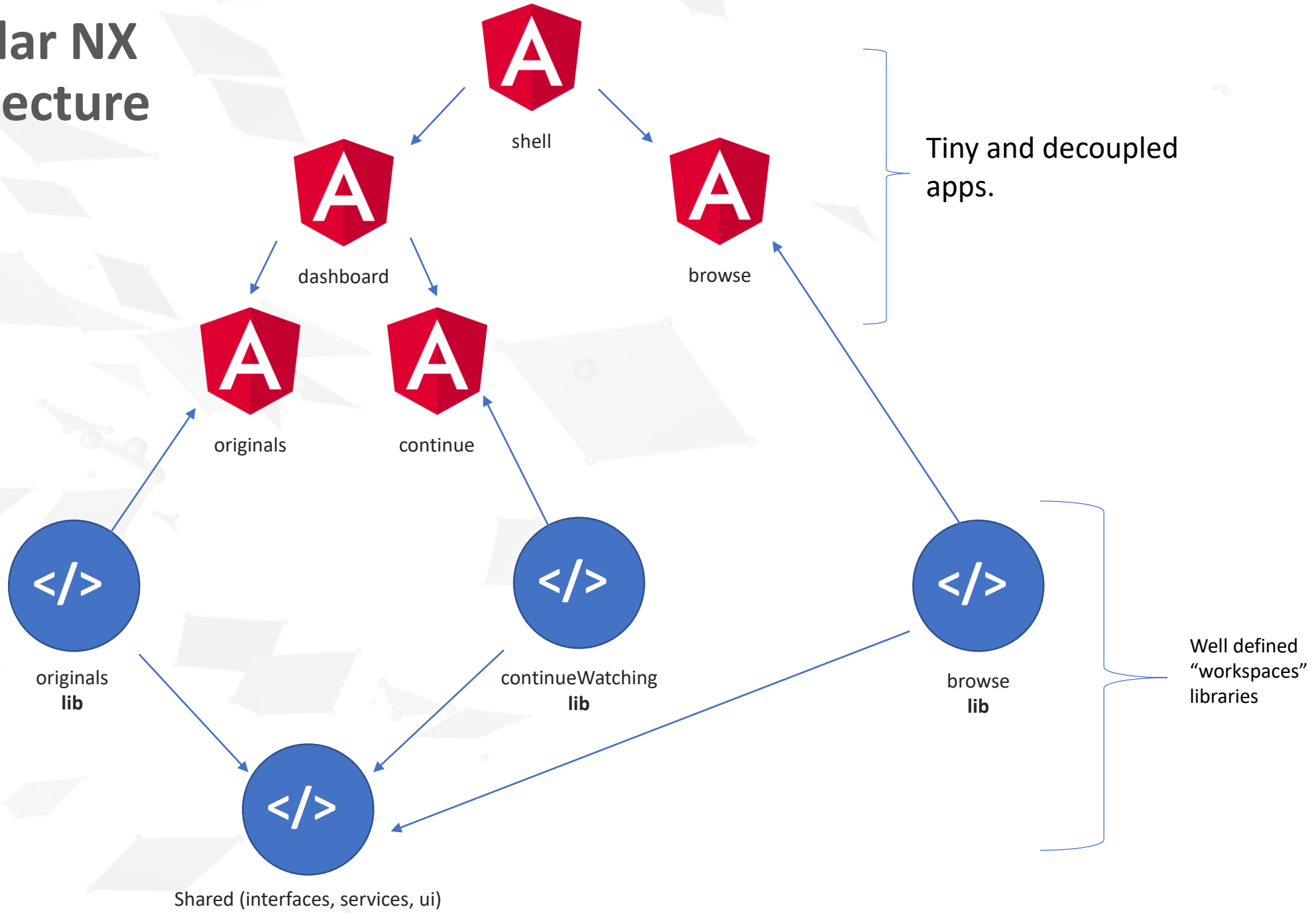
Angular NX Architecture

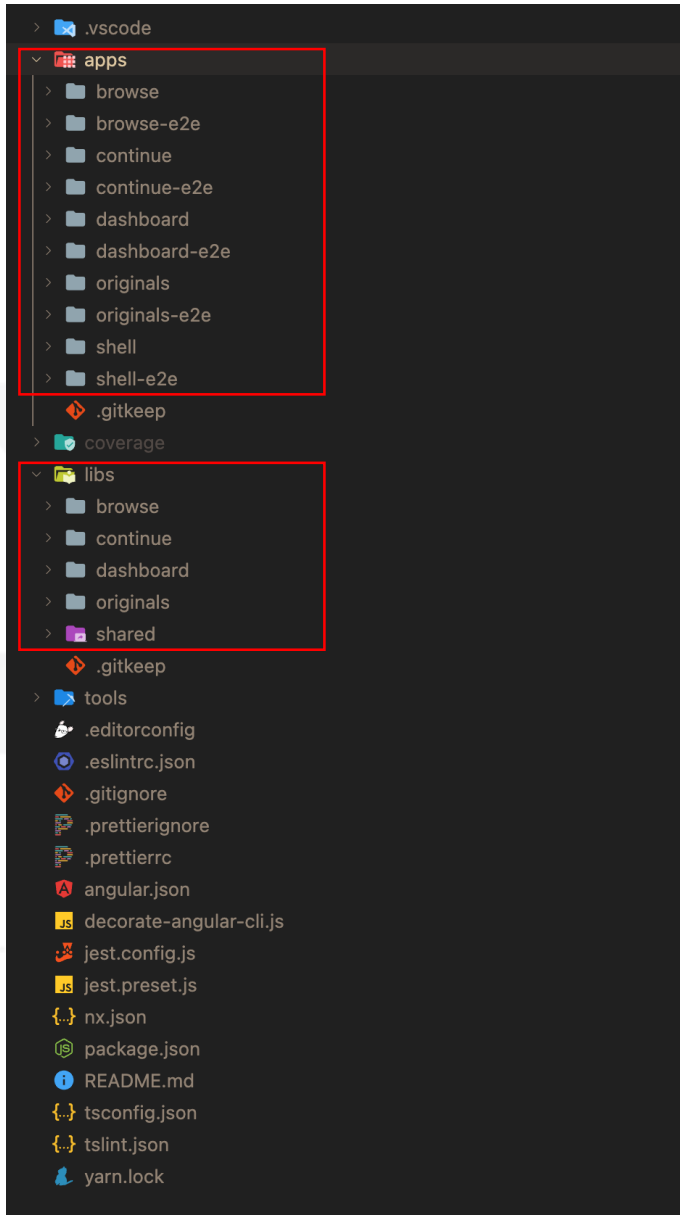


Angular NX Architecture



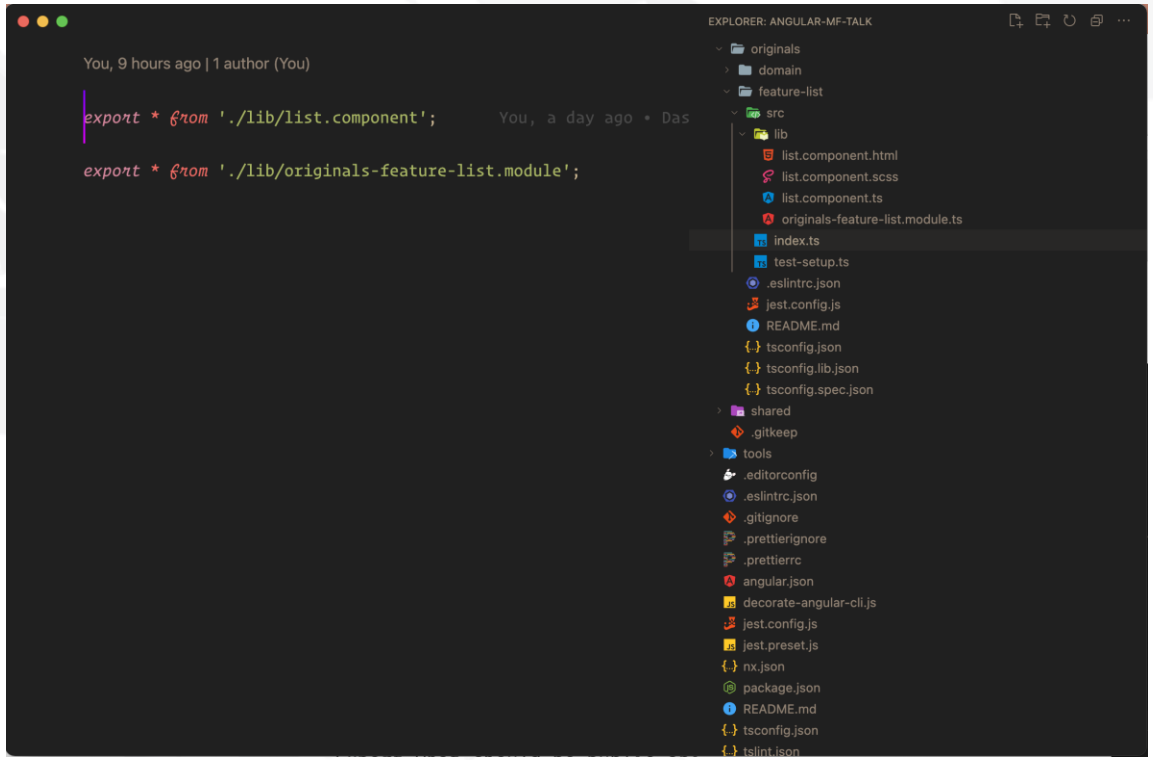
Apps
Deployables

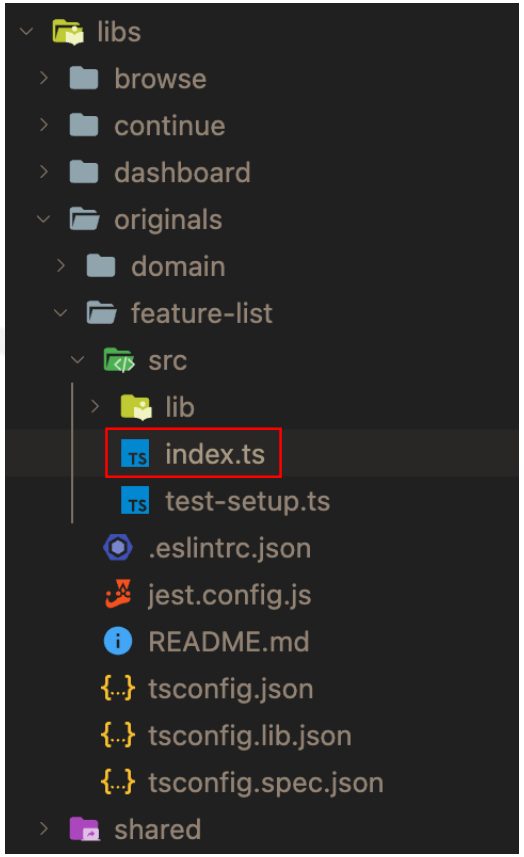
Workspace Libs
Sharable



Workspace
Libs Architecture

Export what should be public api



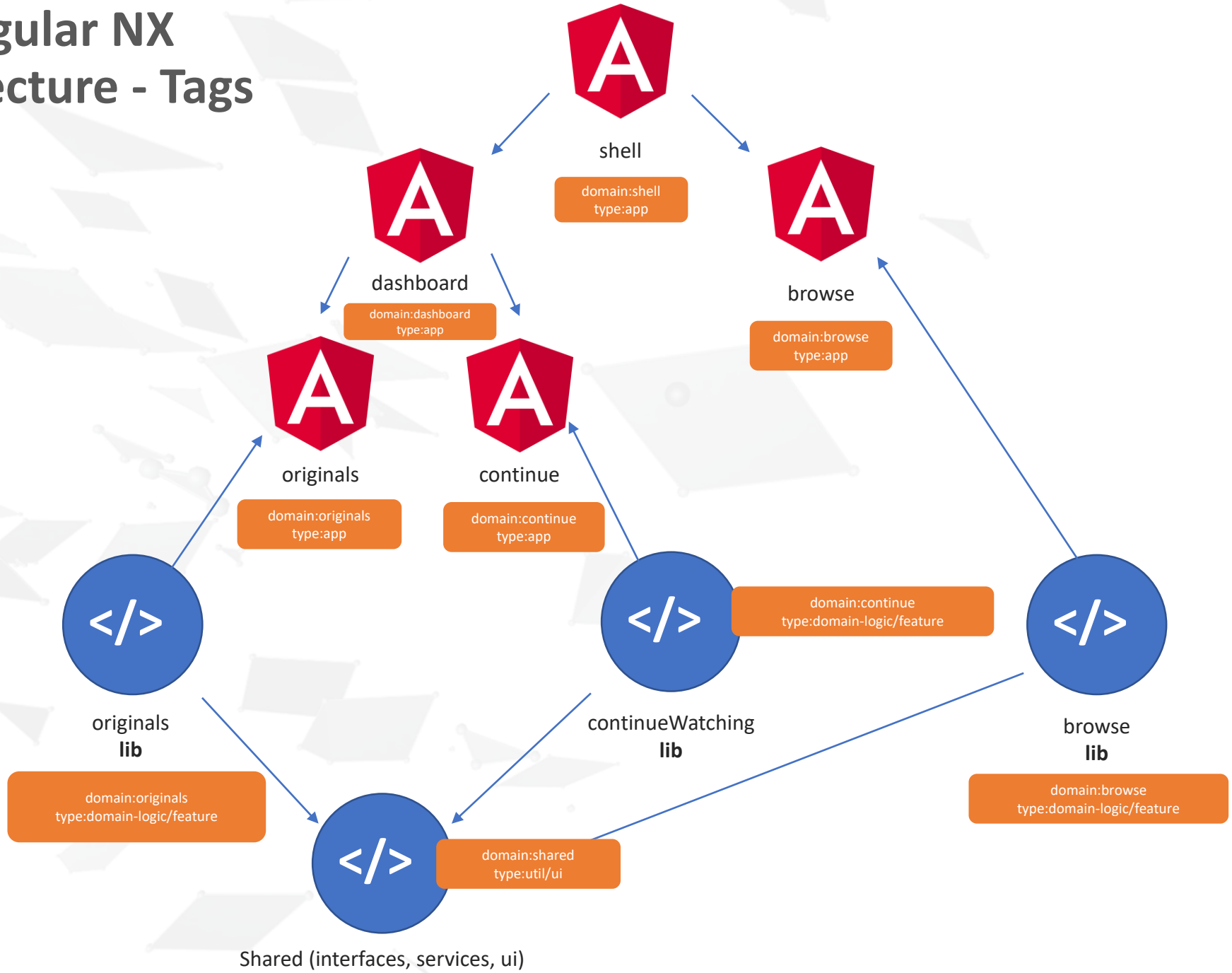


Create boundaries with libraries is **stronger** than do it with folders, and help you think more of what you want to expose in their APIs

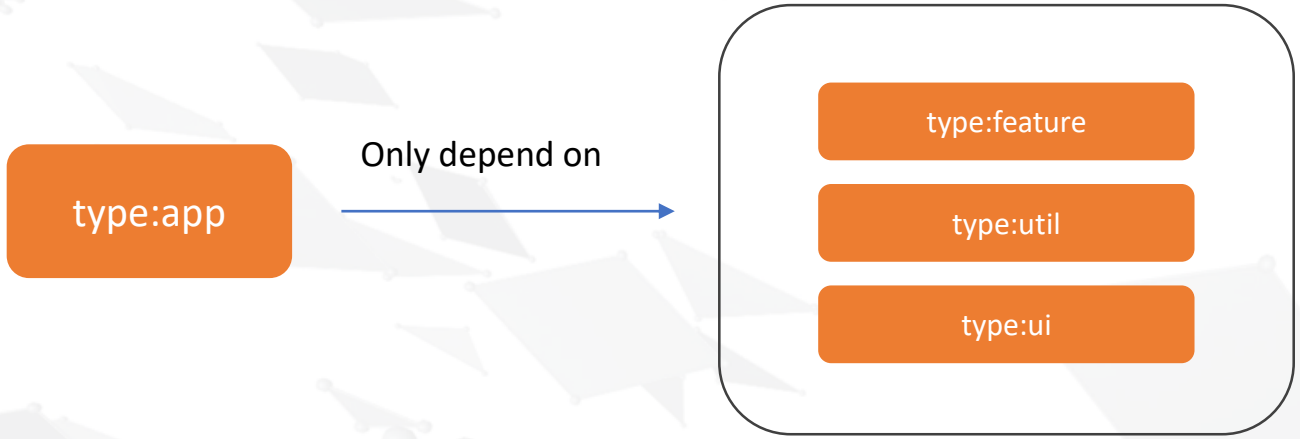
Create boundaries with libraries is **stronger** than do it with folders, and help you think more of what you want to expose in their APIs

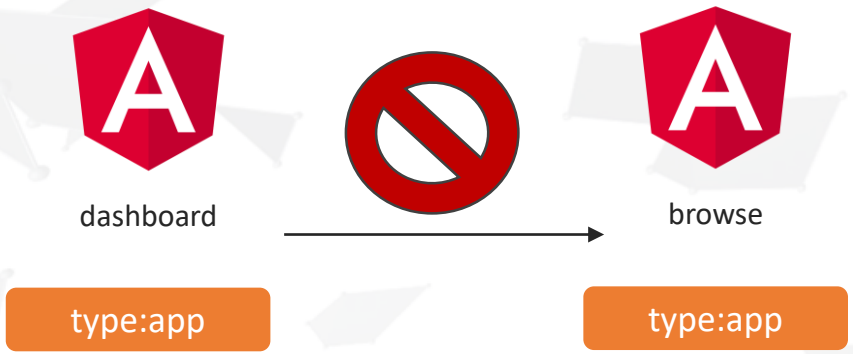
BUT! How can we enforce that?

Angular NX Architecture - Tags



Restricting dependencies





Restricting dependencies

type:app

Only depend on

type:feature

type:util

type:ui

originals

continue

domain:originals

domain:continue

domain:originals

Only depend on

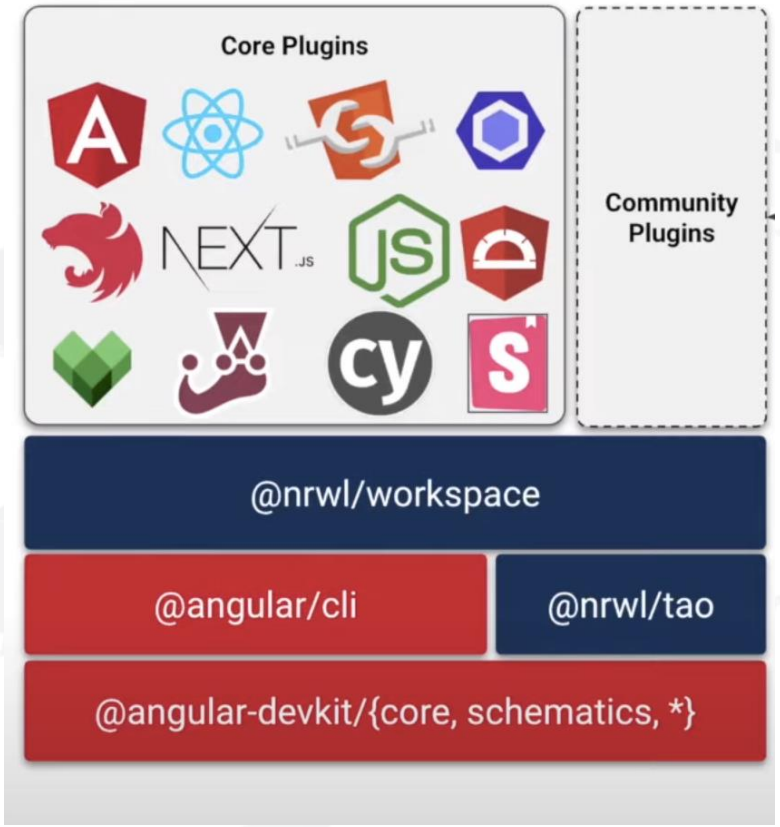
domain:shared

domain:originals

domain:core

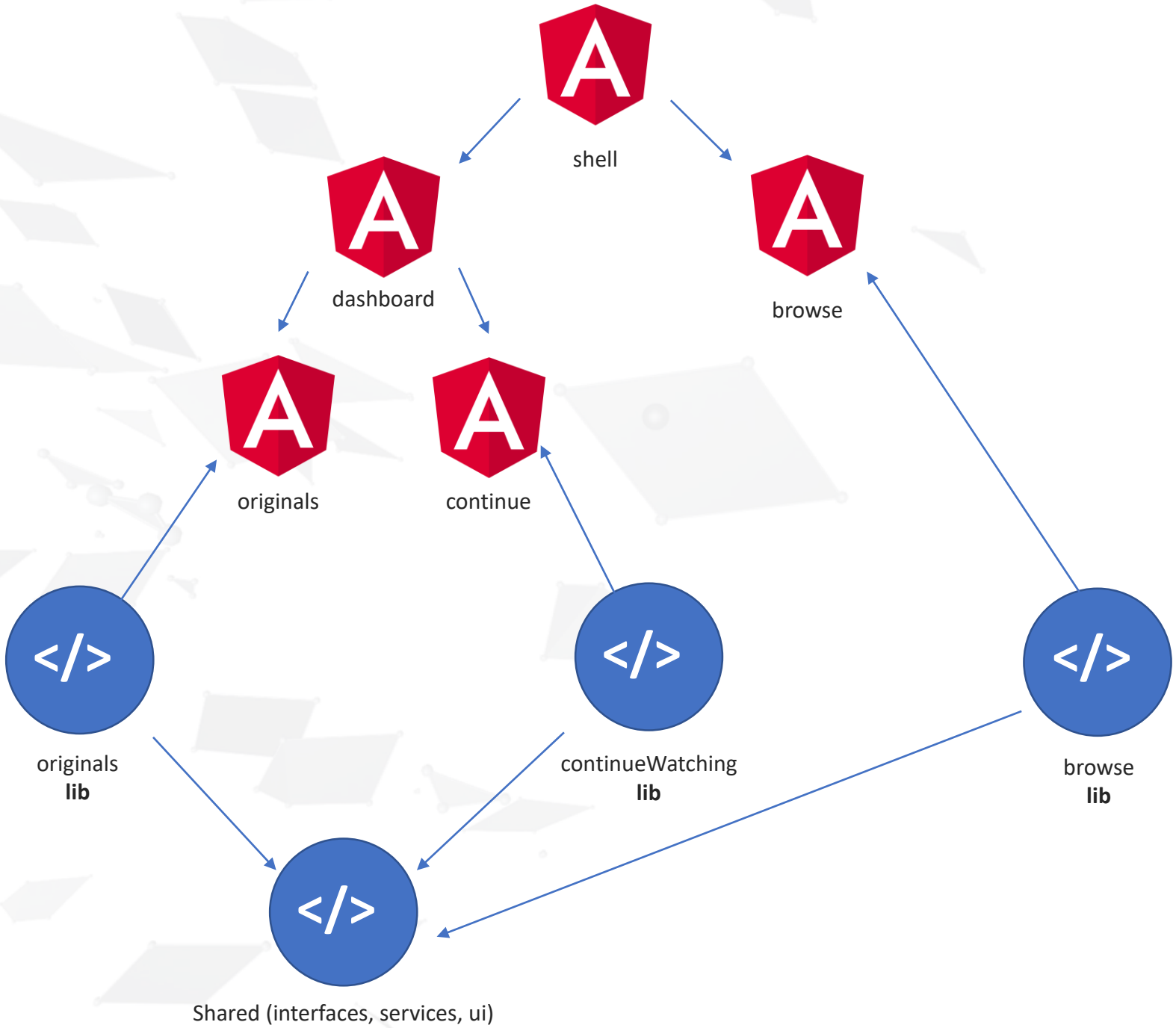
DEMO

2. Modern Tooling

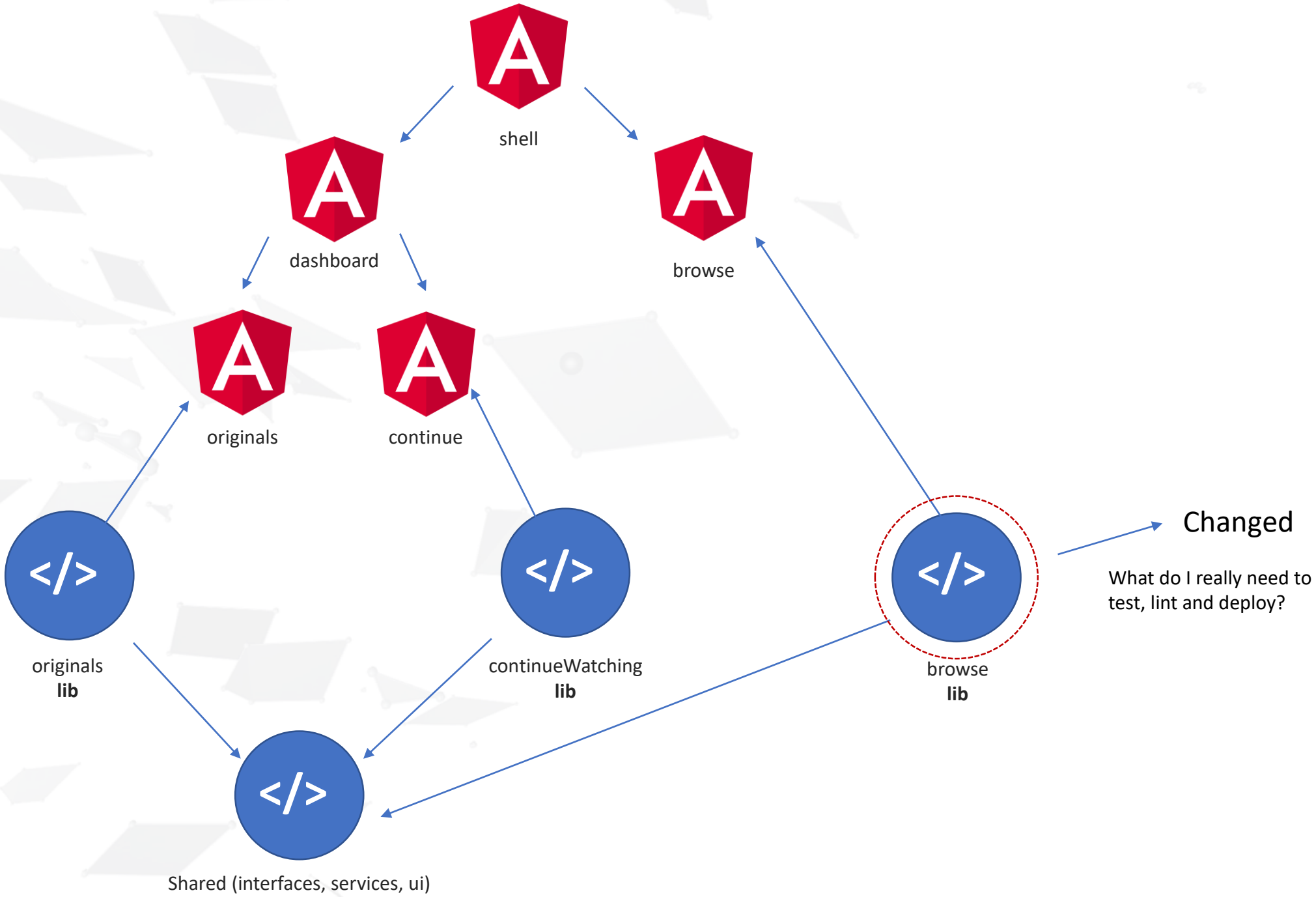


- Comes with eslint (tslint – deprecated)
- Prettier for code formatting
- Jest – Unit tests (karma)
- Cypress – E2E tests (Protractor)

3. Scalability & speed


shell
dashboard
browse
originals
continue
originals
lib
continueWatching
lib
browse
lib
Shared (interfaces, services, ui)

Do I need to always deploy, test and lint everything?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browse
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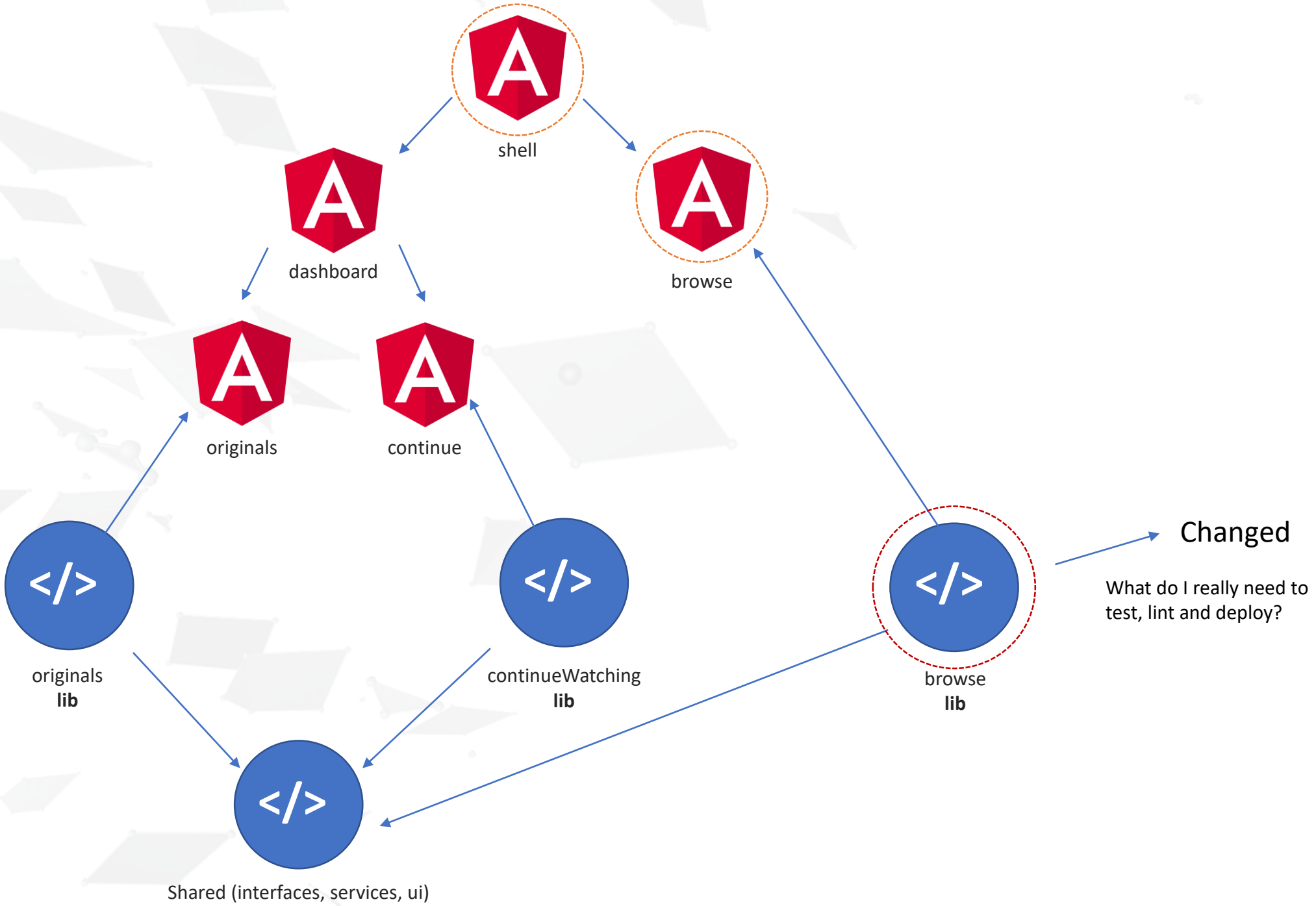
Changed
What do I really need to test, lint and deploy?
Shared (interfaces, services, ui)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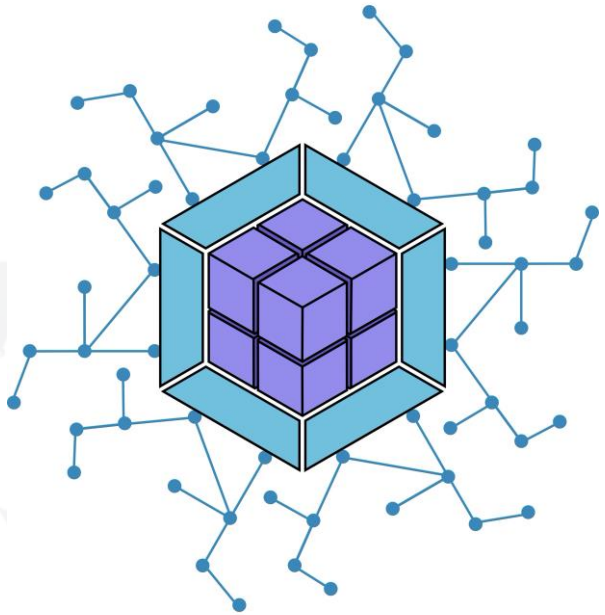
Changed
What do I really need to test, lint and deploy?
Shared (interfaces, services, ui)

With *nx affected* command you can test, deploy and lint only the projects that is affected by the change.

DEMO

Where is the Microfrontends here?

Let’s talk shortly about Webpack 5 and Module Federation.