

The Age of Monorepos

Miroslav Jonas / [@meeroslav](#) / [nx.dev](#) / [nrwl.io](#)



WARNING!



Bad design
Flickering colors
Life-changing features

Miroslav Jonaš

@meeroslav



Vienna.js



STATIC WEB (pre JS era)

Yahoo - A Guide to WWW

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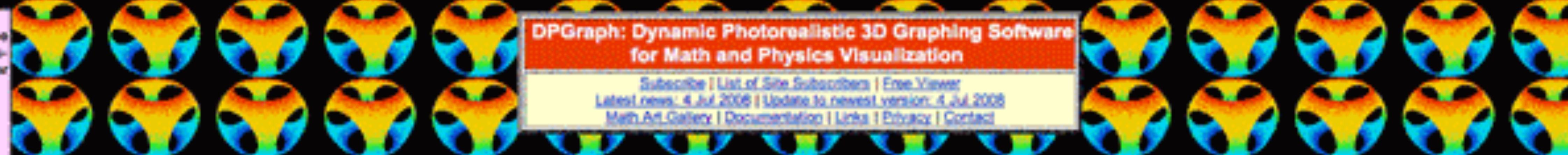
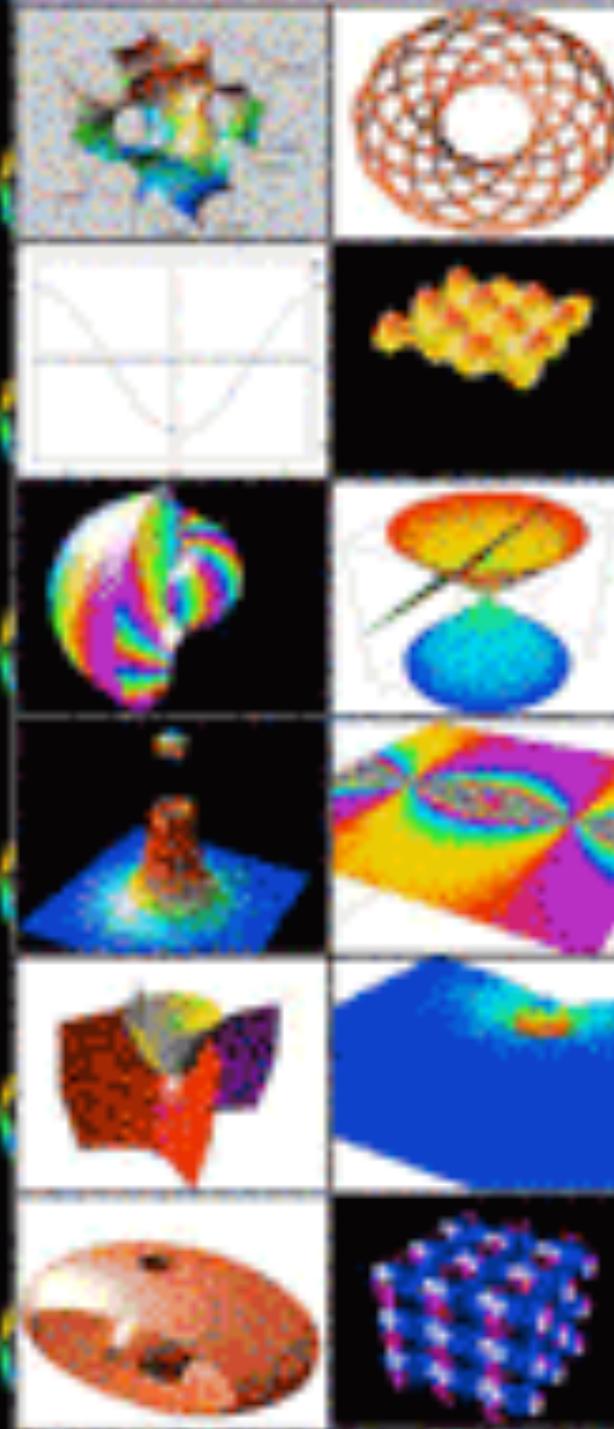


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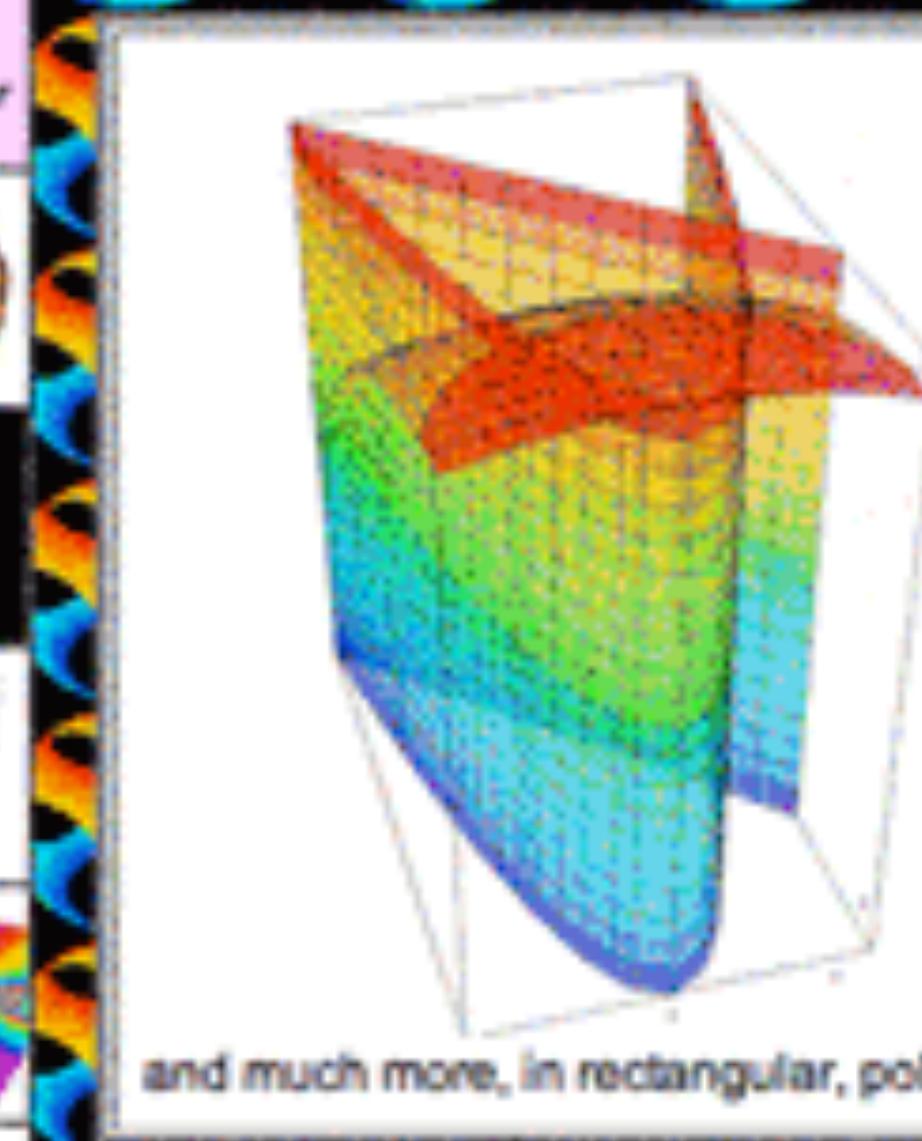
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"Quality: Excellent. Value: Excellent." ... "DPGraph is one of the most exciting Windows-PC programs I've ever seen for creating beautiful, even stunning, mathematical graphics." - Dr. Michael W. Ecker, Recreational & Educational Computing, and DPGraph runs under Wine on Linux, or under SoftWindows or Virtual PC on the Mac.



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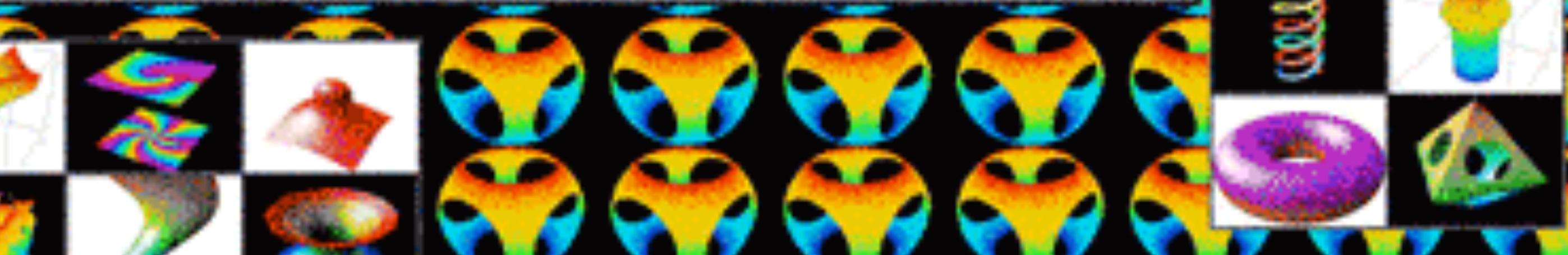
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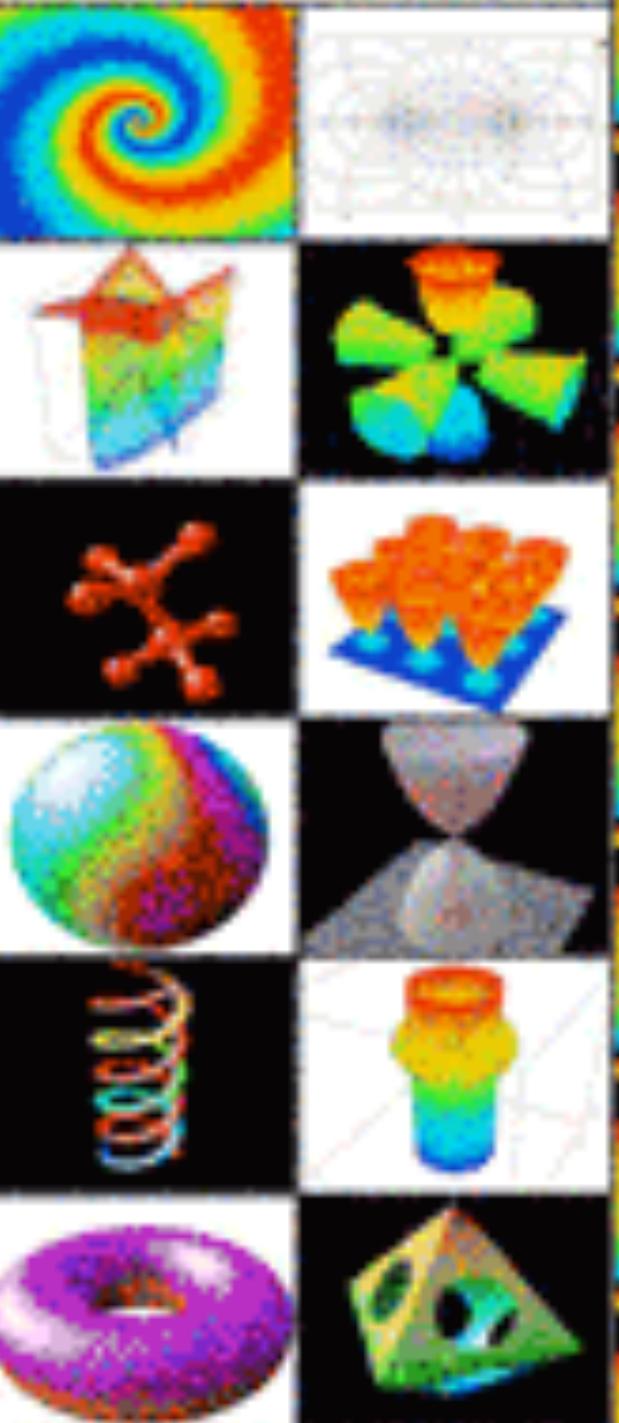
Use time and color as extra dimensions (to create motion or encode momentum, for example). Use the scrollbar to vary parameters in realtime, to slice through graphs, or to vary transparency. Programmed entirely in assembly language for maximum speed.

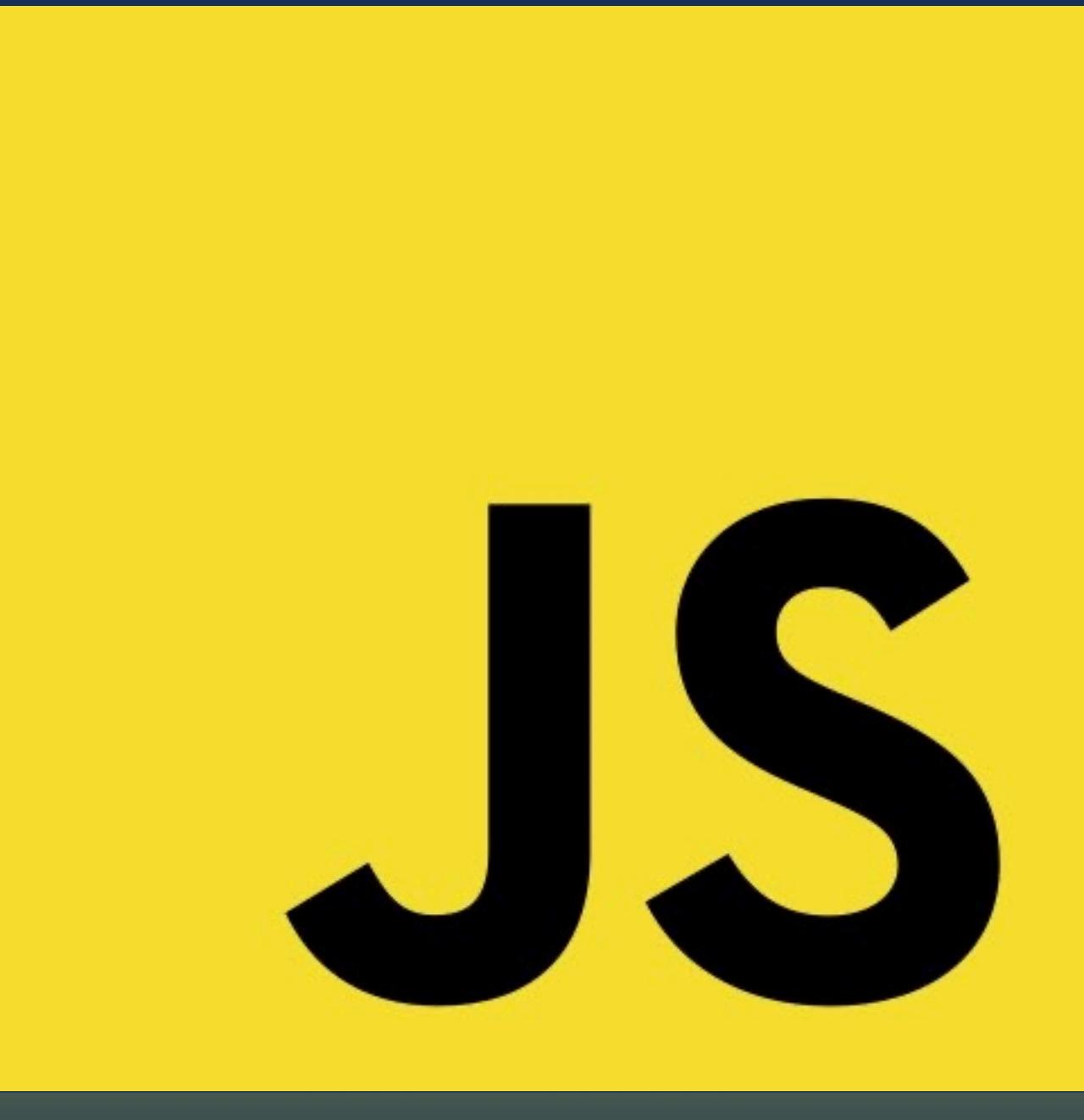
Graph functions, equations, conic sections, planes, spheres, toruses, parametric curves and surfaces, implicit equalities and inequalities, volume intersections, volumes of integration, vector fields, surfaces of revolution, equipotential surfaces, and much more, in rectangular, polar, cylindrical, or spherical coordinates.



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★★★★★ "You'll be dazzled ..." - ZDNet





successfully confusing
recruiters since 1995

Age of Scripting

ACCEPT JESUS, FOREVER FORGIVEN

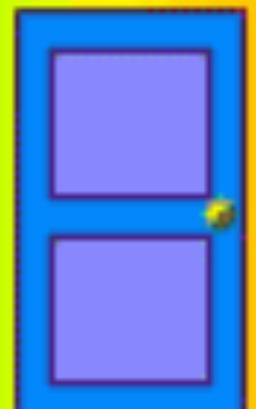
Behold, now is the accepted time; behold, now is the day of salvation. - 2 Cor. 6:2

**For the wages of sin is death;
but the gift of God is eternal life
through Jesus Christ our Lord.**

-Romans 6:23

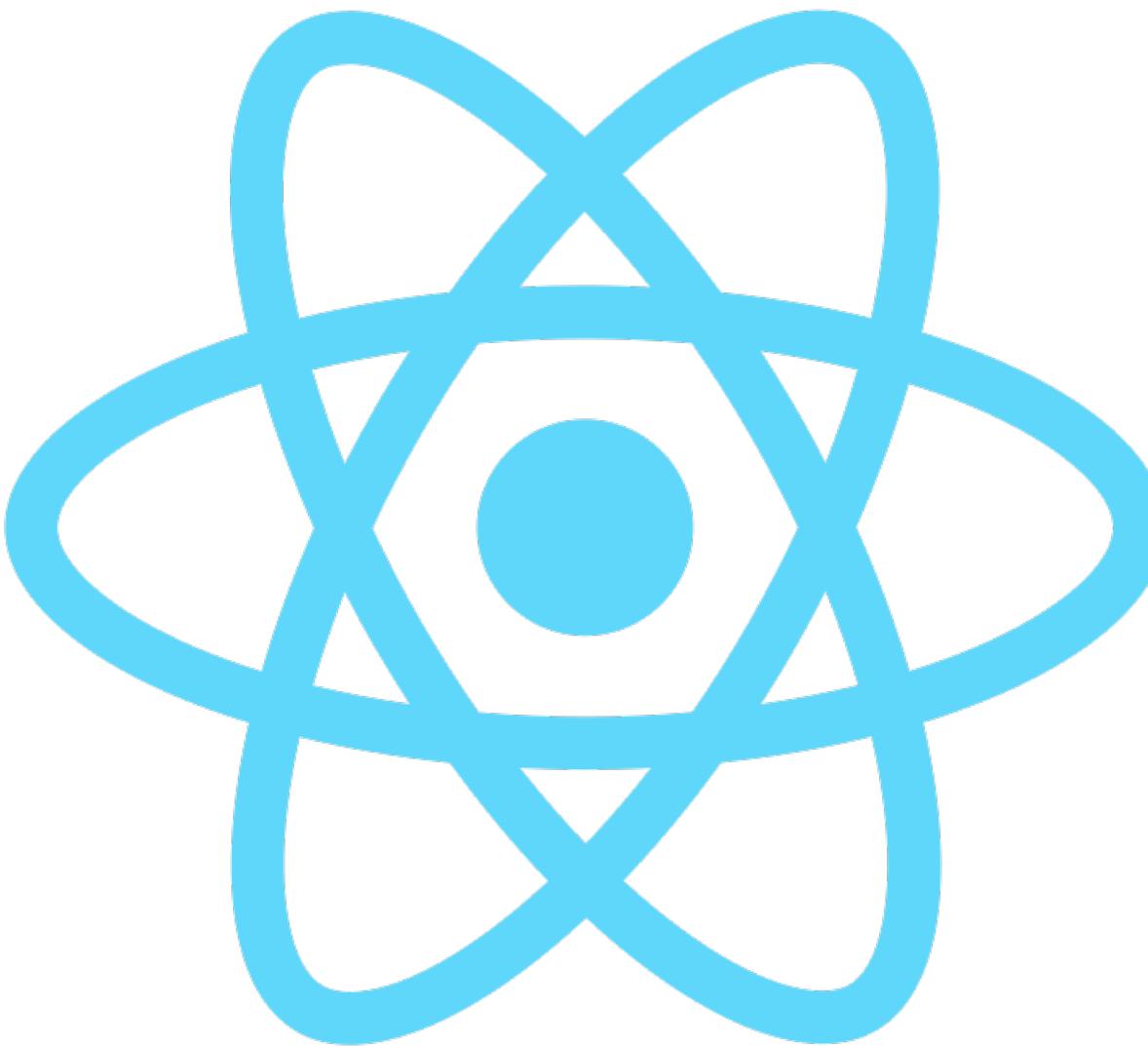
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Age of jQuery

Age of SPAs



Age of JAMStack

NEXT.JS

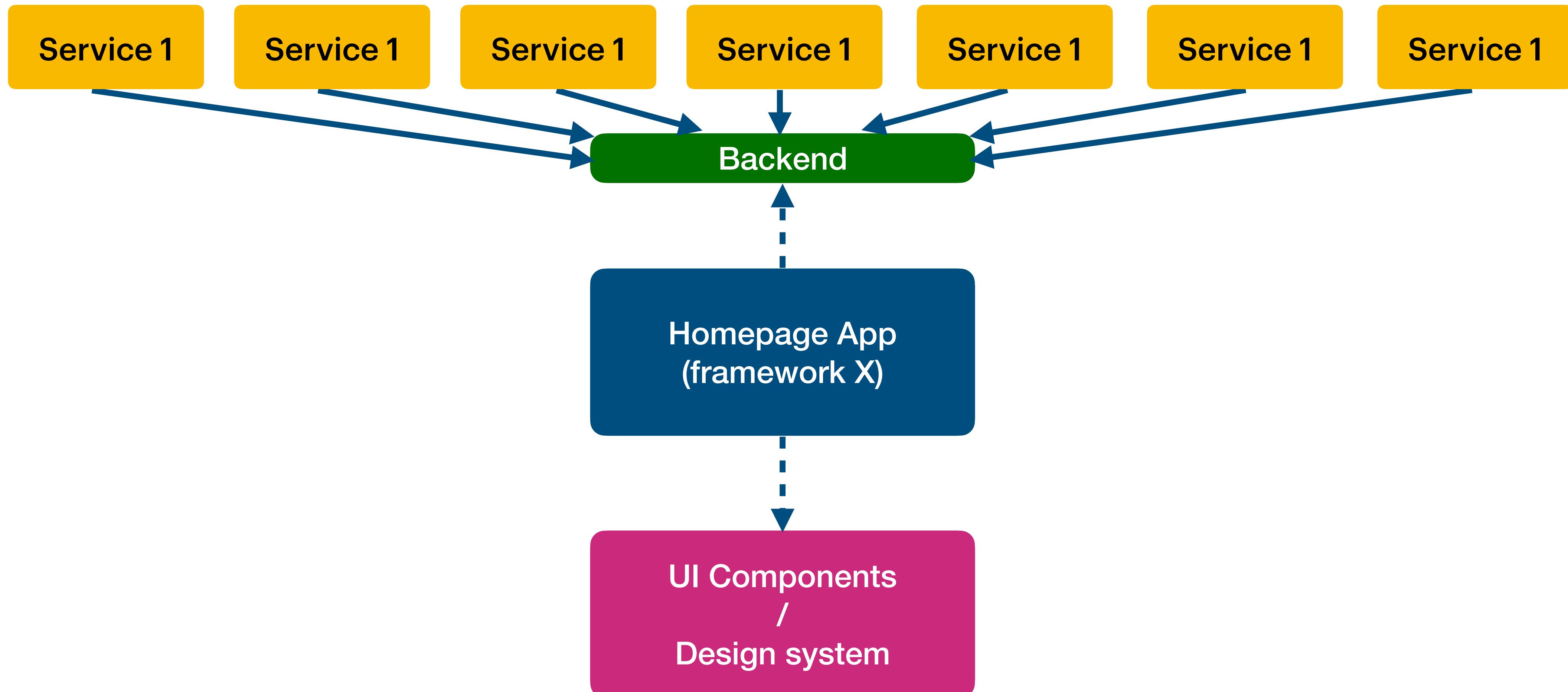


Remix

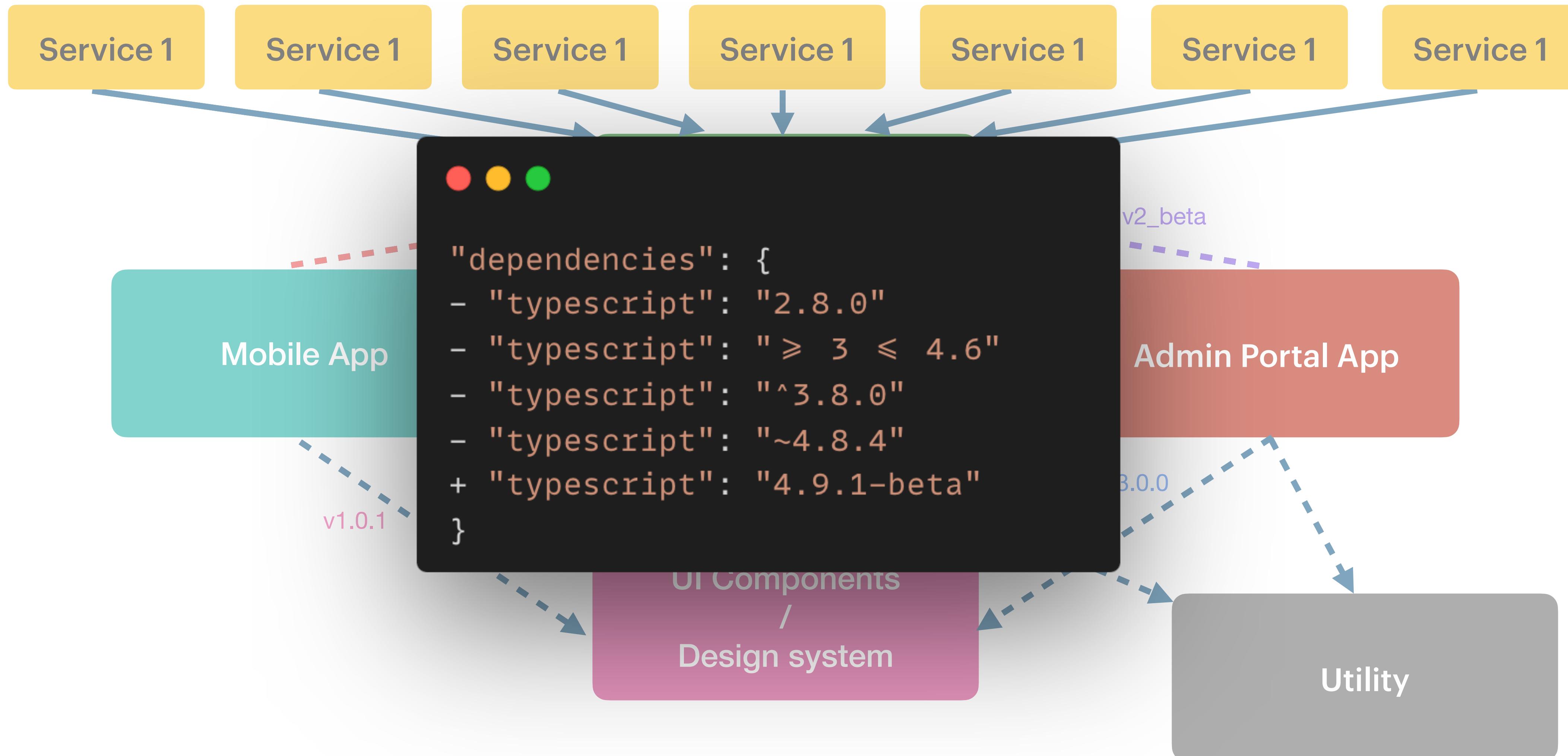


Age of Monorepos

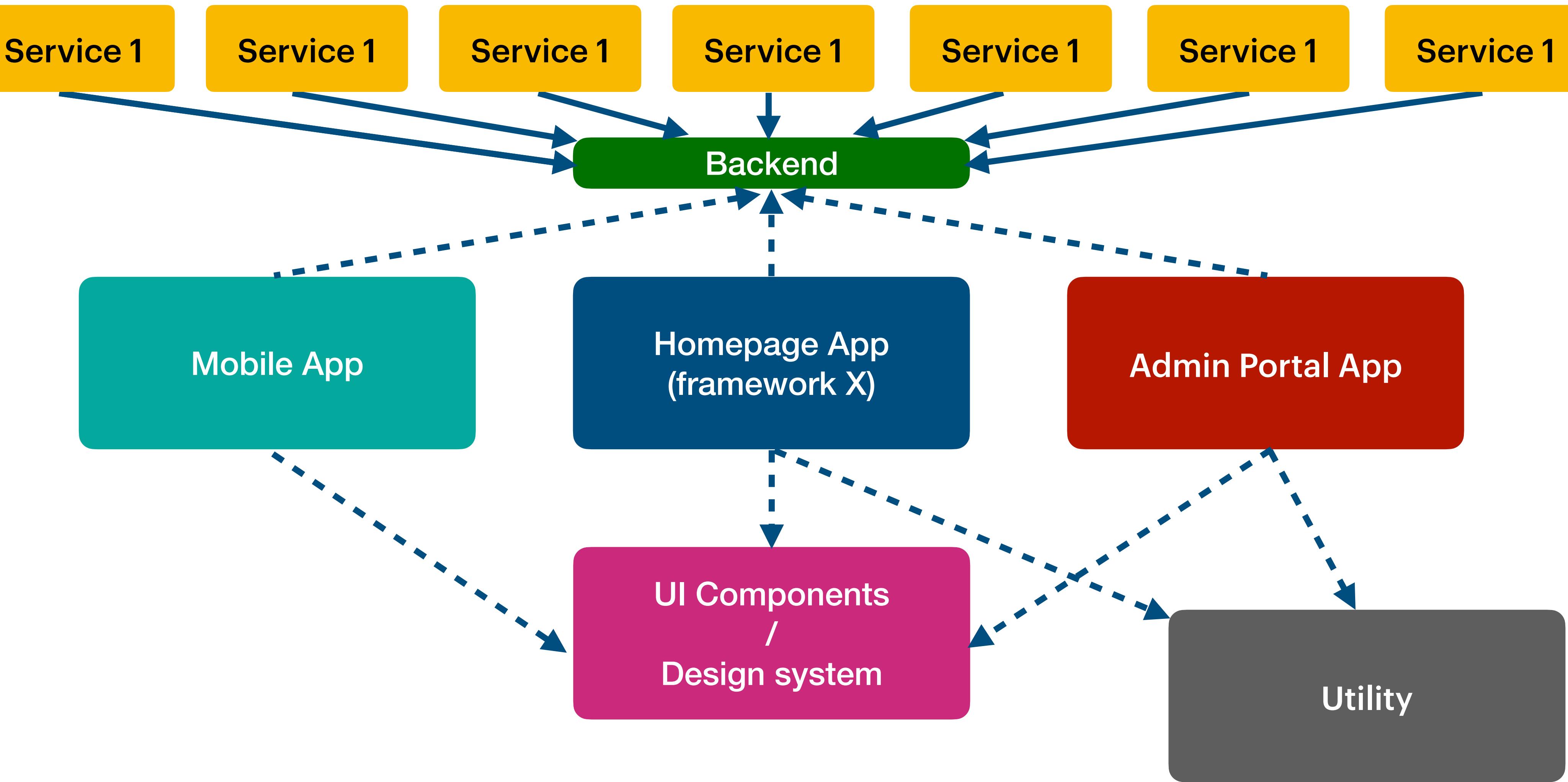
Every application*



Every application*



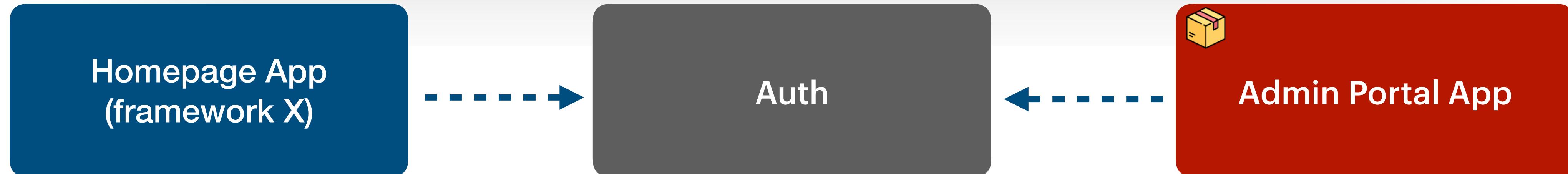
Collocate



Code sharing

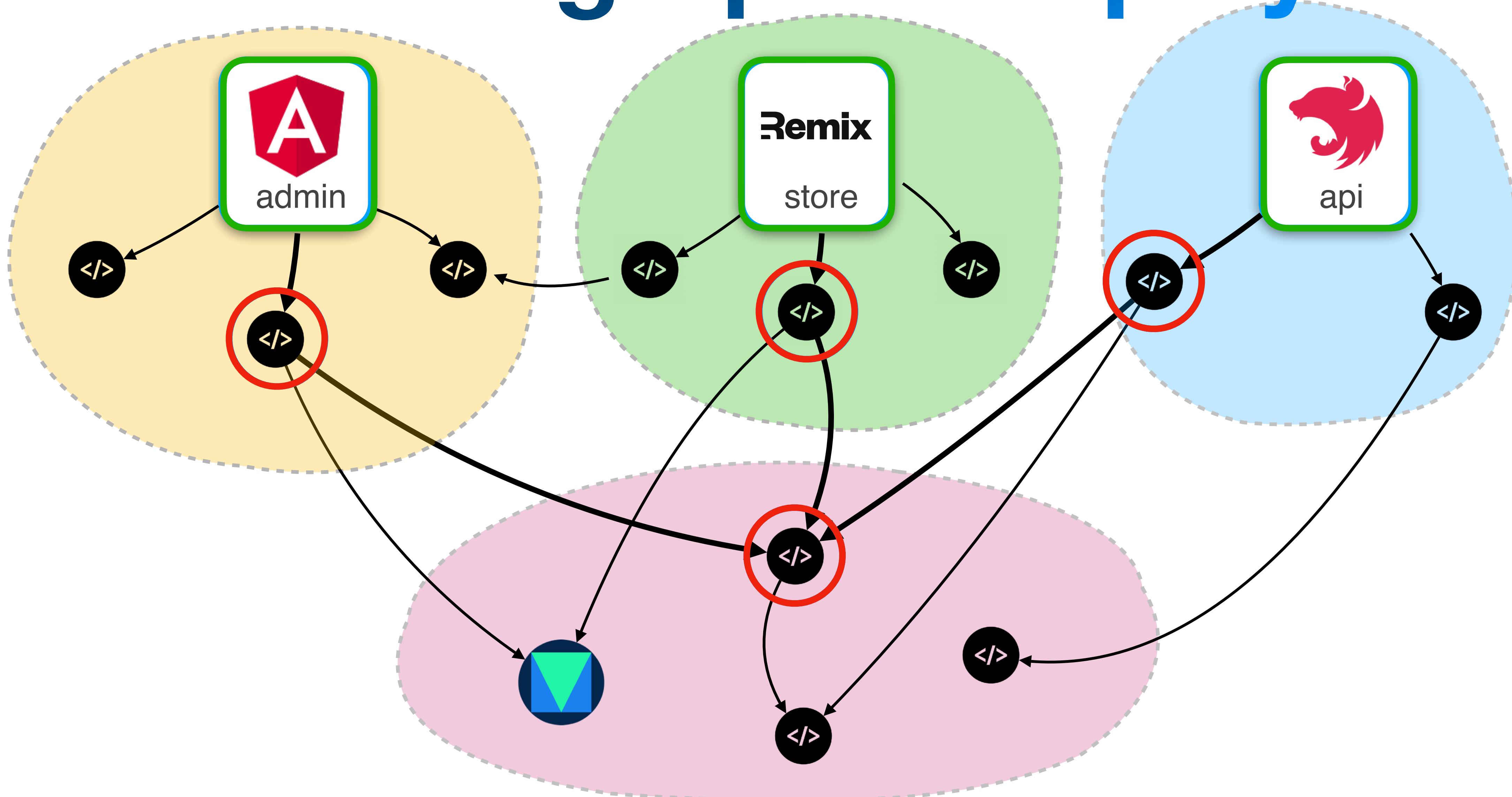


```
export function isAdmin(username: string, password: string): boolean {  
    return true;  
}
```

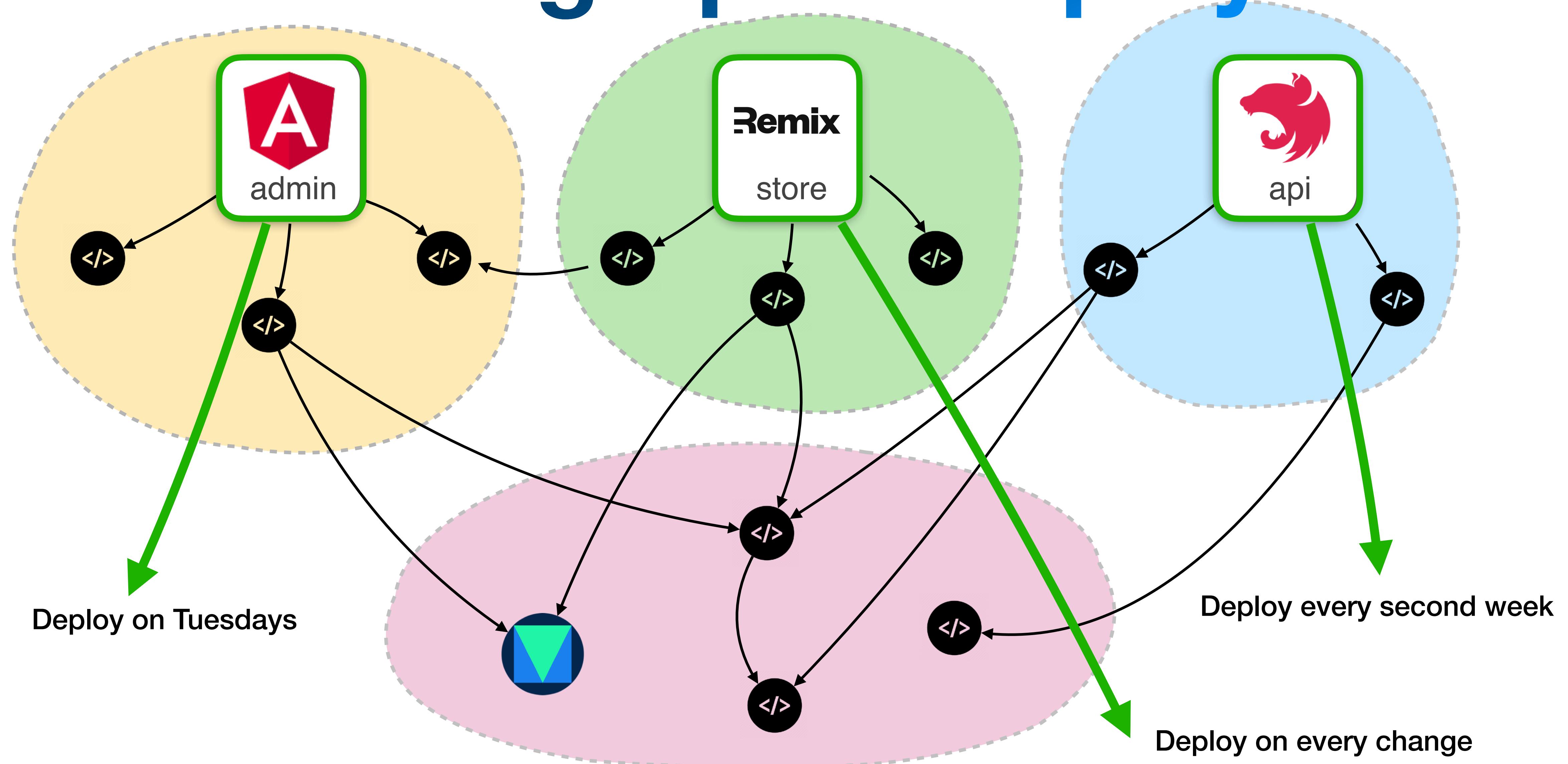


NOT
Just collocation

Affected graph + deploy



Affected graph + deploy





Workspace analysis

Analyse and visualize your workspace.

TRACING PATH

Shortest

All

e2e-esbuild

⋮

nx

lib name, other lib name

Include related libraries

Show libraries that are related to your search.

Show all projects

Hide all projects

Group by folder

Visually arrange libraries by folders with different colors.

Activate proximity

Explore connected libraries step by step.

- 1 +

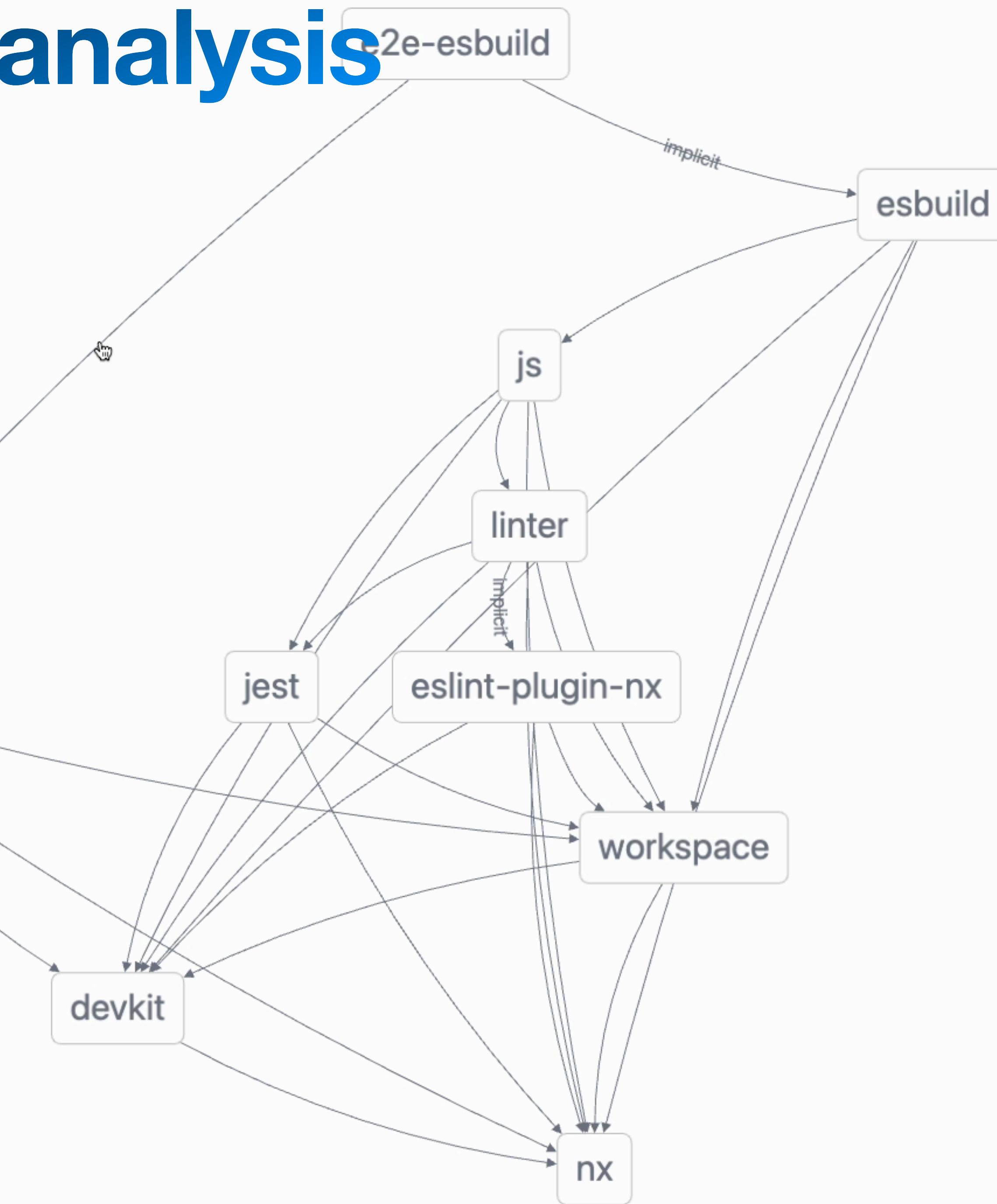
app projects

E2E

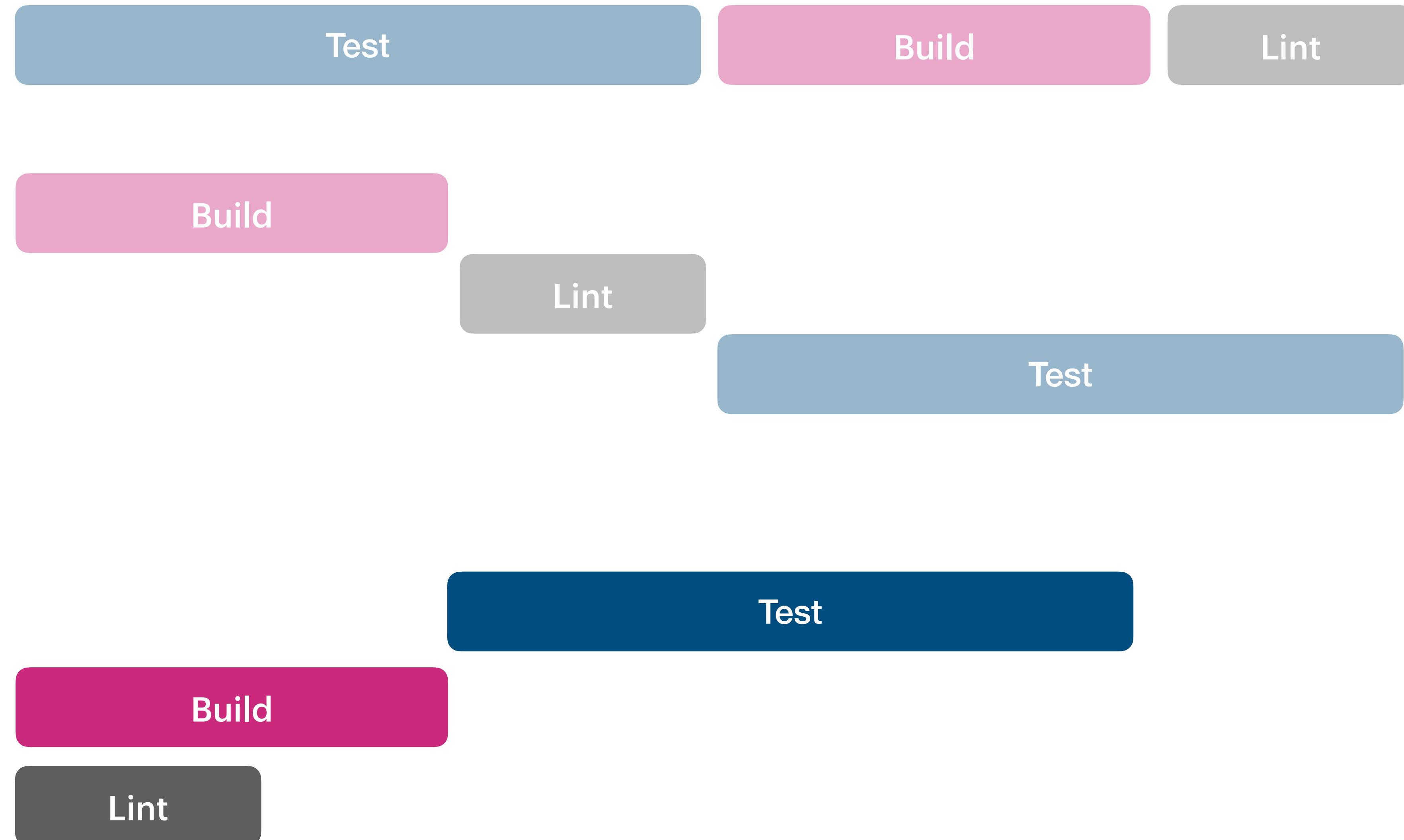
e2e-add-nx-to-monorepo

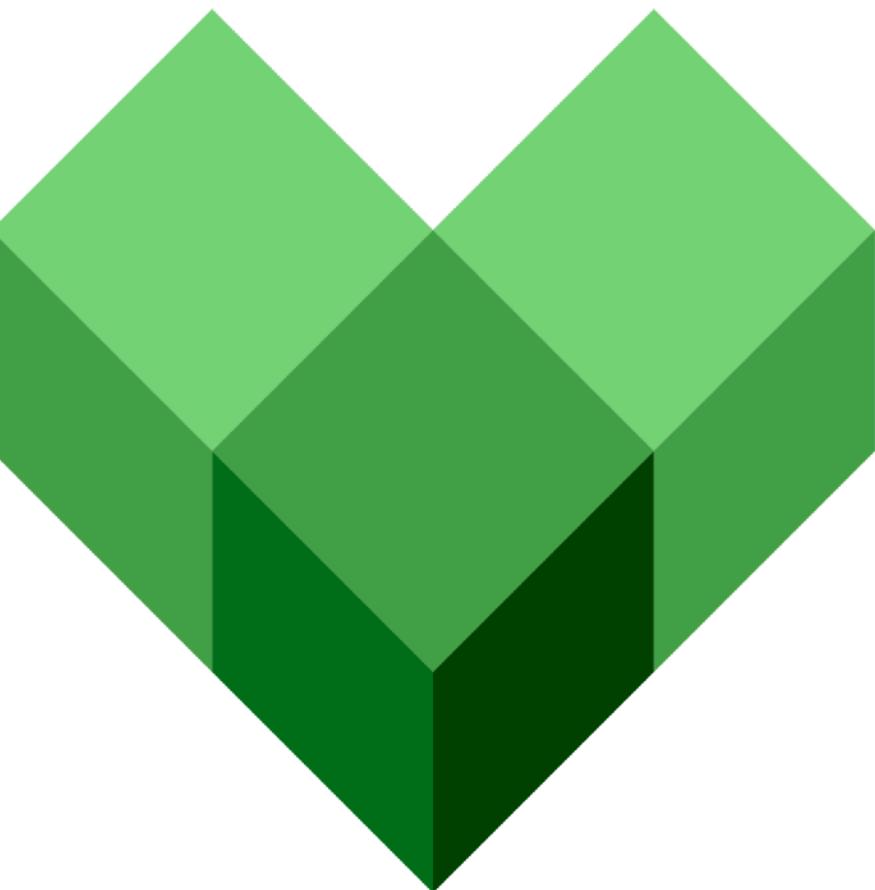
e2e-angular-core

e2e-angular-extensions



Task orchestration



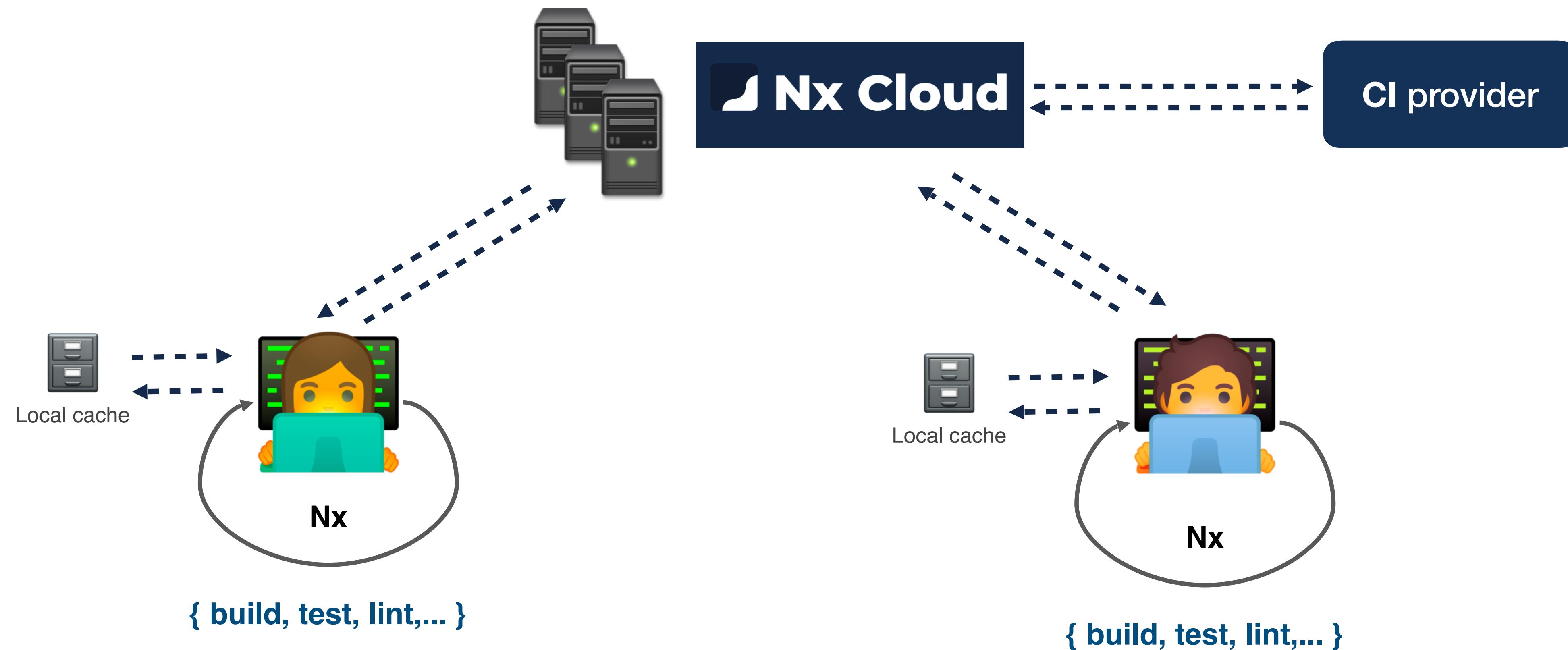


TURBOREPO

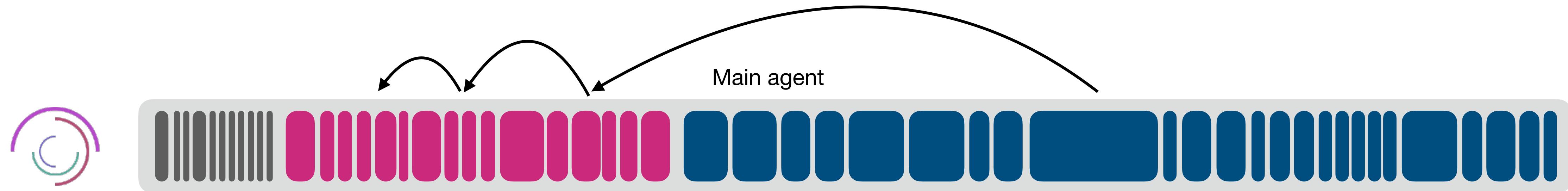


Caching

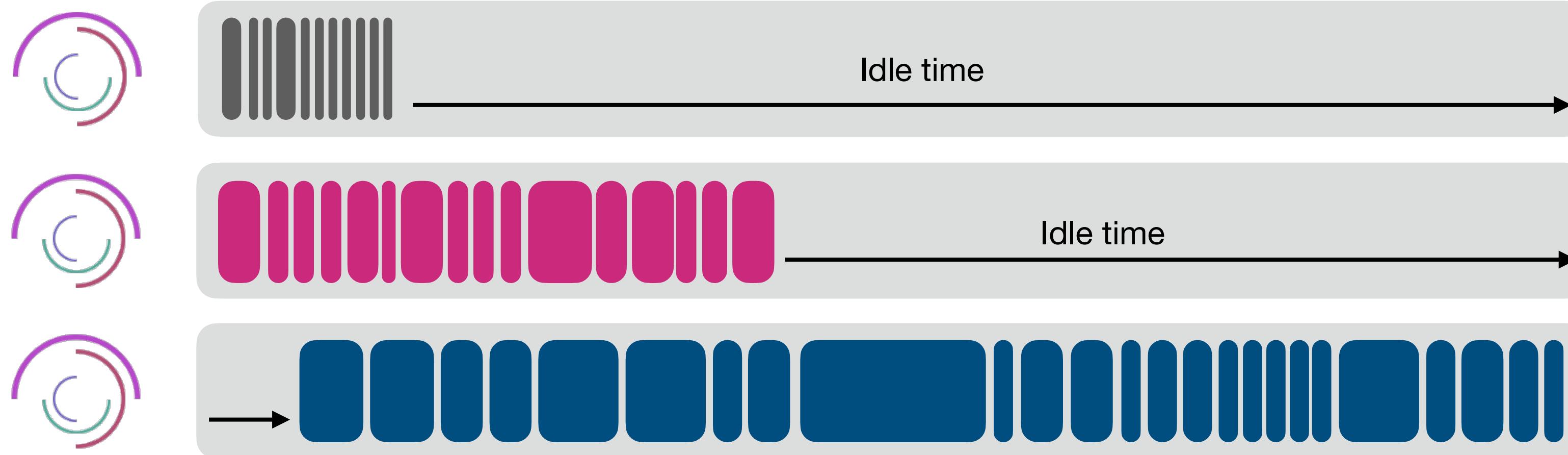
Never { build, test, lint... } same code twice



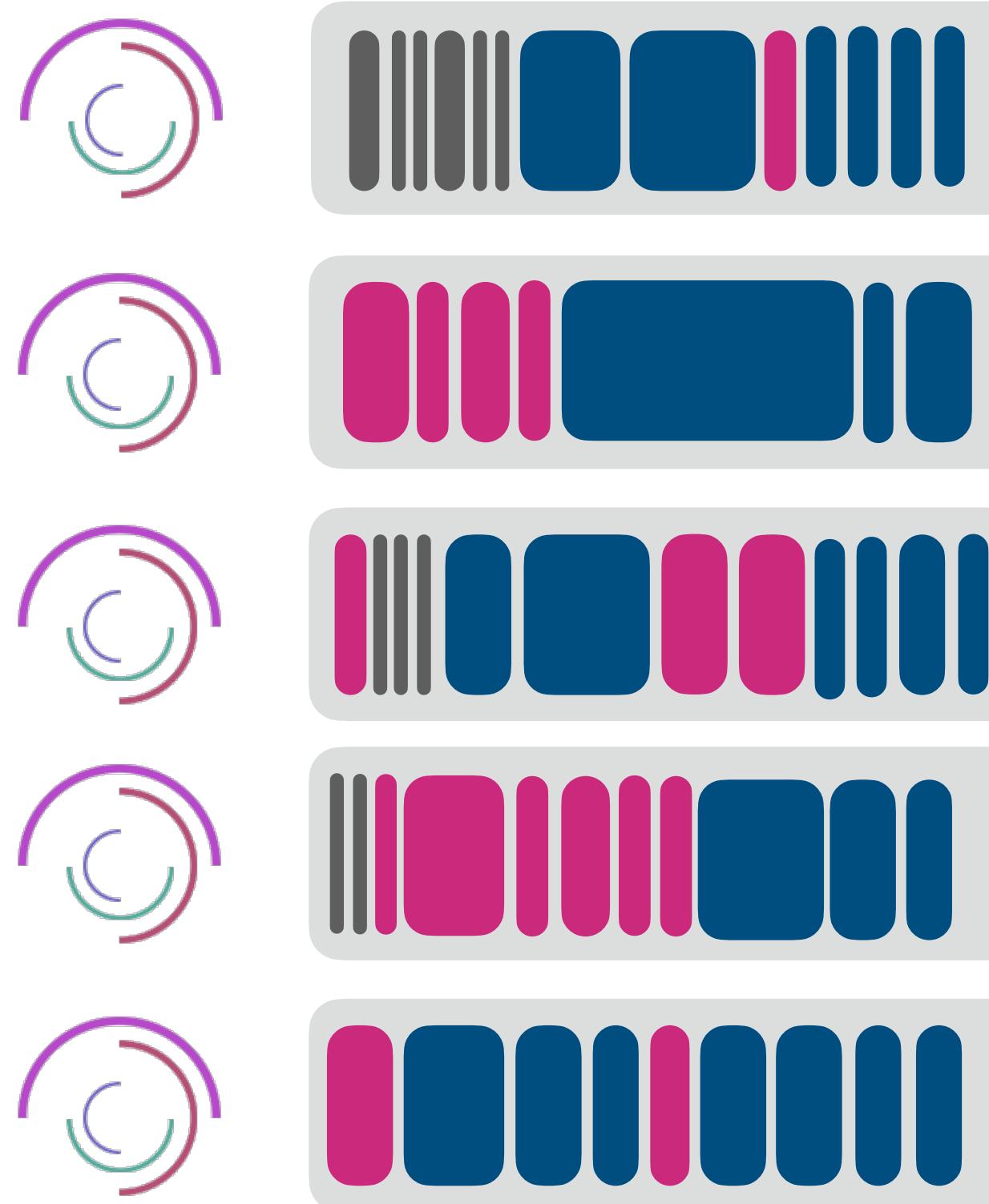
Distributed task execution



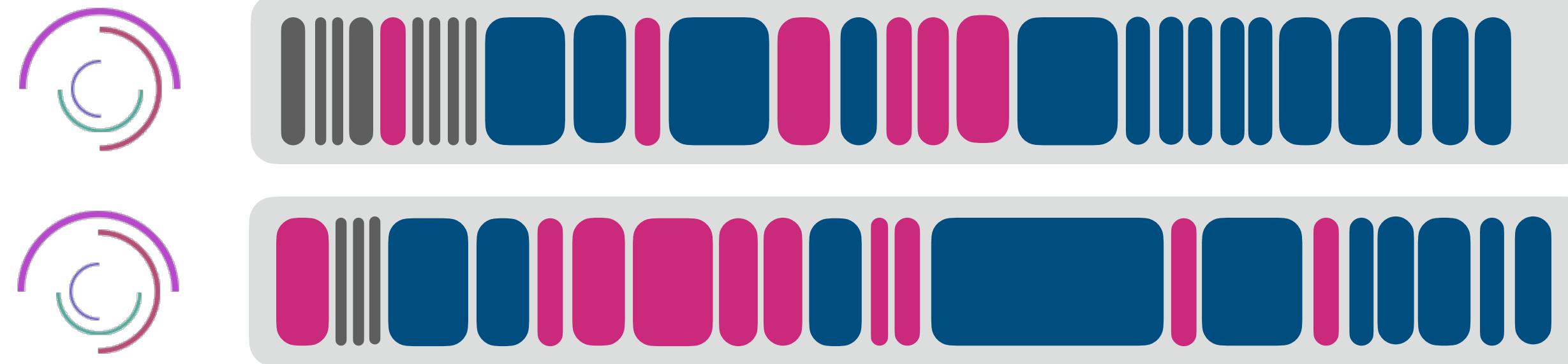
Distributed task execution



Distributed task execution

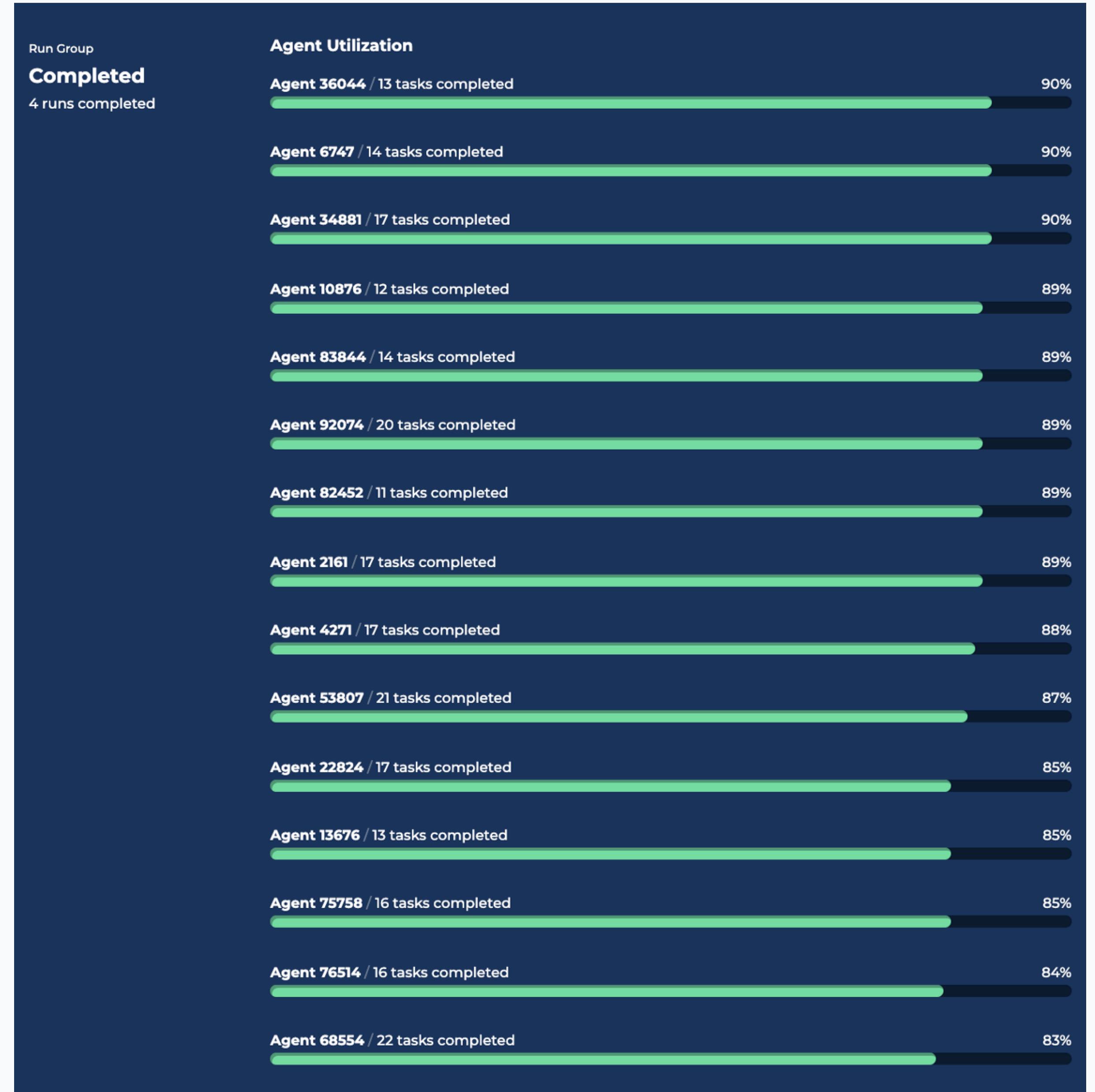


Distributed task execution



Agent utilization

Optimal idle time



```
● ● ●  
on:  
  push:  
    branches:  
      - main  
  
jobs:  
  main:  
    name: Nx Cloud - Main Job  
    uses: nrwl/ci/.github/workflows/nx-cloud-main.yml@v0.7  
    with:  
      number-of-agents: 3  
      init-commands: |  
        yarn nx-cloud start-ci-run --agent-count=3  
      parallel-commands-on-agents: |  
        yarn nx affected --target=lint --parallel=3  
        yarn nx affected --target=test --parallel=3 --ci --code-coverage  
        yarn nx affected --target=build --parallel=3  
  
  agents:  
    name: Nx Cloud - Agents  
    uses: nrwl/ci/.github/workflows/nx-cloud-agents.yml@v0.7  
    with:  
      number-of-agents: 3
```



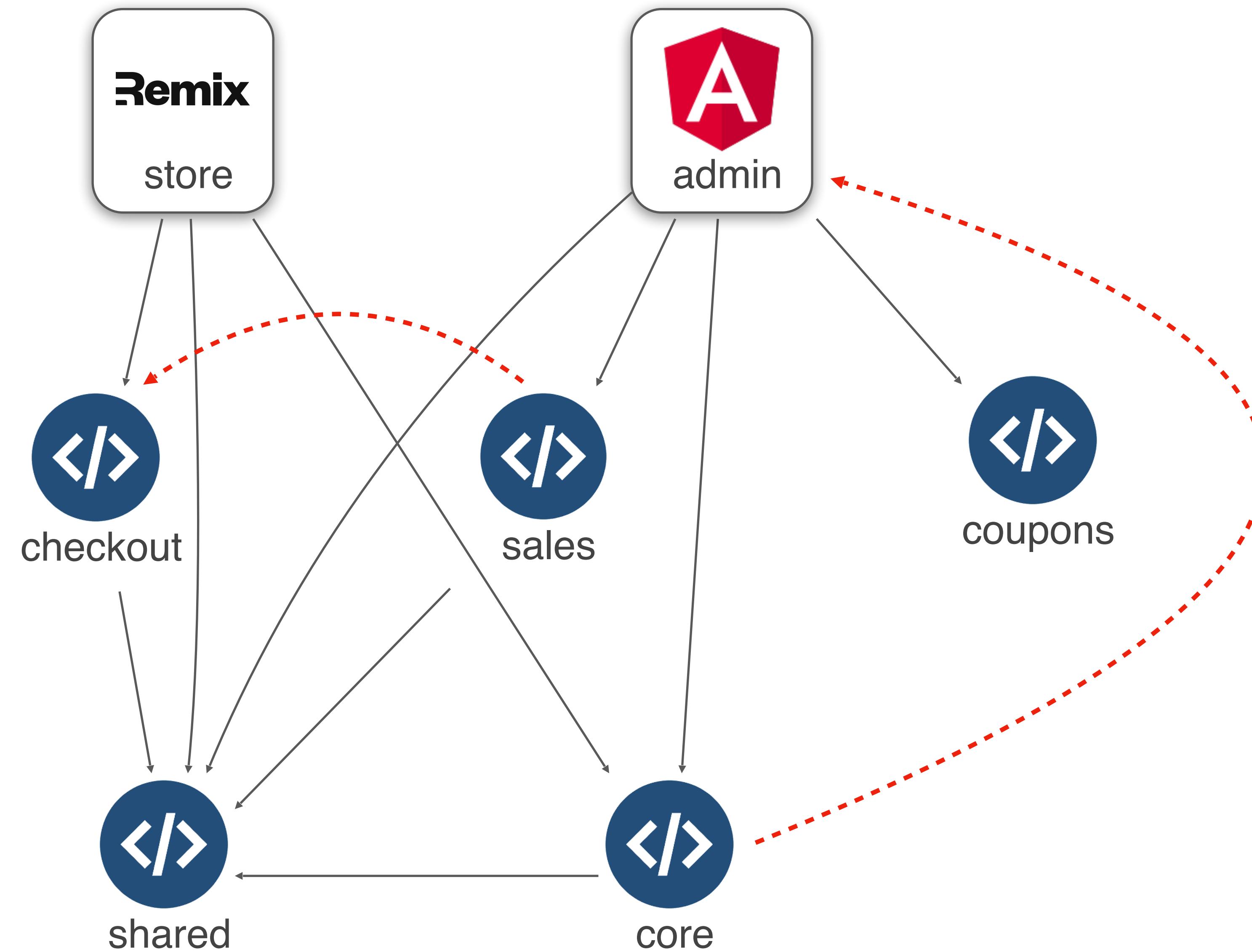
```
npx nx g @nrwl/workspace:ci-workflow --ci=azure
```

Code constraints



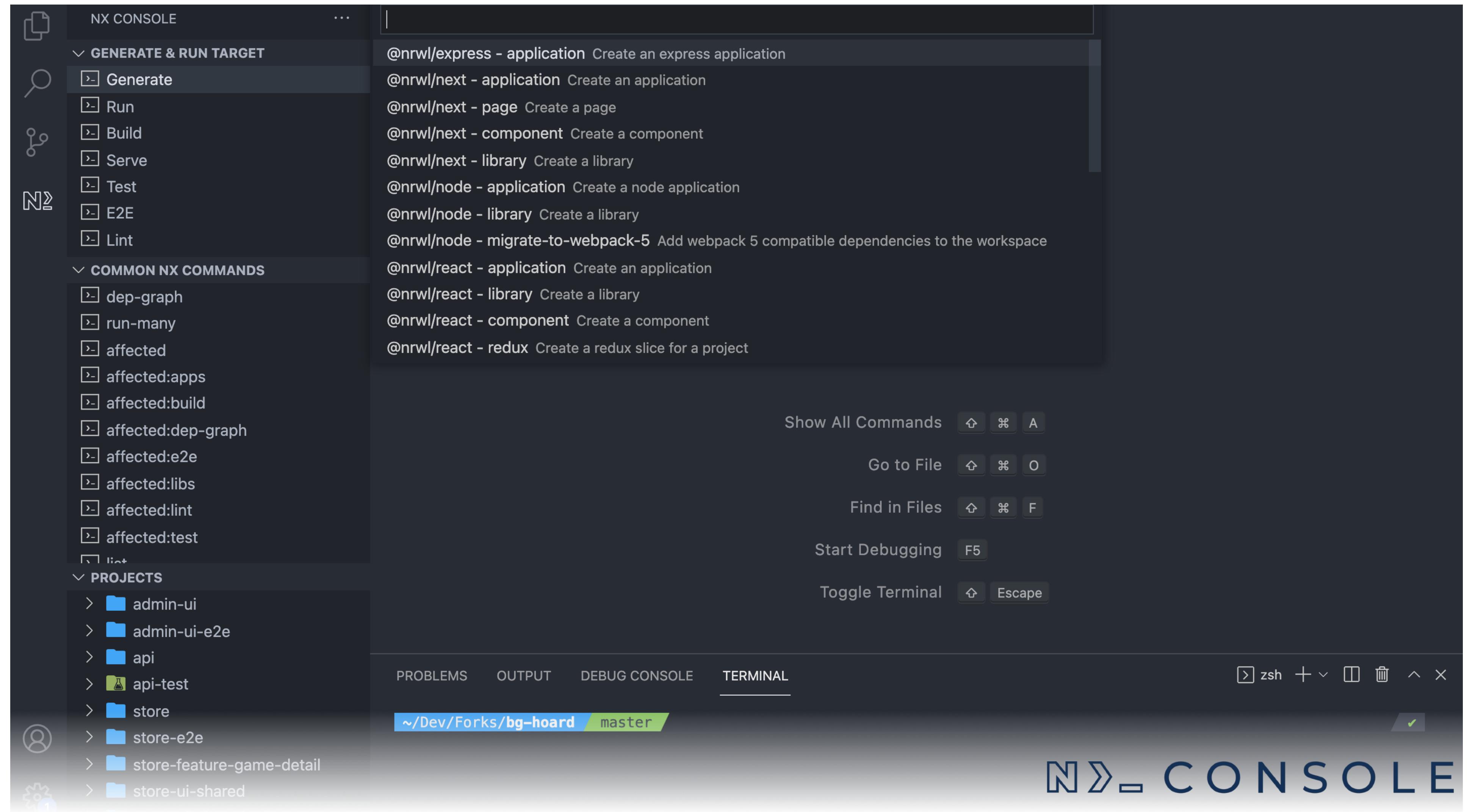
```
import { experimentalDontUse } from '@myorg/shared/hope/no/1/finds/this';
```

Code constraints



But I have only one project...

Powerful generators



NX CONSOLE

Consistent tooling



```
npm run launch-homepage-app --exceptOnTuesdays  
npm run build-shared-ui --turnOnProductionFlags  
npm run i-forget-what-this-does --butItRunsEveryWeek
```

IFM IN!



Create new



```
npx create-nx-workspace@latest nx-rocks
```



```
npx add-nx-to-monorepo
```

Migrate existing



```
npx create-nx-workspace@latest nx-rocks
```

Migrate existing



```
npx add-nx-to-monorepo
```

Convert existing



```
npx cra-to-nx
```



```
npx create-nx-workspace@latest nx-rocks
```

Migrate existing



```
npx add-nx-to-monorepo
```

Convert existing



```
ng add @nrwl/angular --preserve-angular-cli-layout
```

Monorepos bring clarity

- workspace analysis
- graph visualization

Monorepos bring speed

- local & remote caching
- task orchestration
- detecting affected nodes
- distributed task execution

Monorepos make it easy

- code sharing
- code collocation
- powerful generators
- consistent tooling
- code constraints

Not just a fancy tool

- developer mobility
- collaboration as default
- can change the organization
- greater confidence
- velocity increase

monorepo.tools

Everything you need to know about monorepos,
and the tools to build them.

- Made with love by Nrwl (the company behind Nx)

Use **Nx**

nx.dev / nrwl.io

WHY BE A 10X WHEN YOU CAN BE AN NX DEVELOPER?



Thank you

Miroslav Jonas / [@meeroslav](#) / [nx.dev](#) / [nrwl.io](#)

