JS guild: Monorepos

Juho Härme 19.4.2024

git clone https://github.com/knowitfinland-javascript-guild/turborepo.git

```
├── non-mono
| ├── back
| ├── component-library
| ├── front
| └── utility-library
```

```
cd back
npm install
cd ../component-library
npm install
cd ../front
npm install
# OR just

cd non-mono/
for pkg in */; do cd $pkg & npm install & cd ..;done
```

Intro

- Mono? Poly? Monolith? Microservices? Packages?
- Starting with a monorepo vs converting something into a monorepo
- a) converting a monolith into a monorepo
- b) converting a bunch of microservices + packages into a monorepo

Some of my monorepo story

- over 10 individual repositories
- common ui elements from 2 different packages
- general shared code from 2 different packages
- types from a separate package...

The problem with packages in polyrepo

Hands-on 1

Make a change to a component imported from an internal package

Please make the button hot pink \odot

Best wishes, UX team



C'mon, such a small change, it'll be up in a minute?





```
cd non-mono/component-library/

# make changes to button at index.ts

npm version patch
npm pack
cd ../front
npm install ../component-library/component-library-1.0.1.tg
```

How could a monorepo make this easier?

Prerequisistes for the next hands-on exercise

cd mono npm install

Some important concepts

workspace vs root



- internal vs external
- published vs non-published
- versioning
- deploying an individual microservice?

Hands-on 2

using shared packages in a monorepo

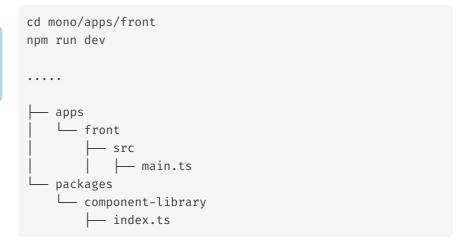
Just kidding, make it light blue instead! 😘

Warmest wishes, UX



We might want to change this again in the future...





cd mono/packages/component-library
make changes to button at index.ts

Working in monorepo

Hands-on 3: Installing a new package

Hands-on 4: Shared configs

- eslint
- prettier
- tsconfig

Some important concepts

- What is actually happening? Symlinks
- hoisting packages
- When does a package reside in app/node_modules? When in root/node_modules?
- Needing to use something like vite/babel
- Adding new workspaces

Things to consider

- how to install new external packages?
 - harmonizing
- editor support
- converting with git history retained

Hands-on 5: Using additional tools

Making running tasks easier with tools like turborepo

Resources