

# Monorepos

With Turborepo + React Native and Web Demo

Tony Ko

Sr. Software Engineer @ Quantum Mob

## Monorepos

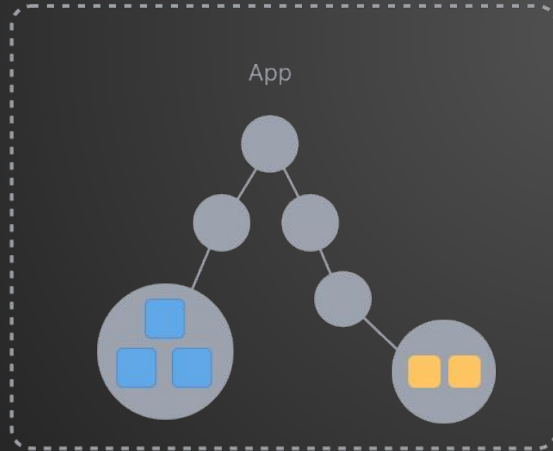
# What is a Monorepo?

Common understanding of what a monorepo is

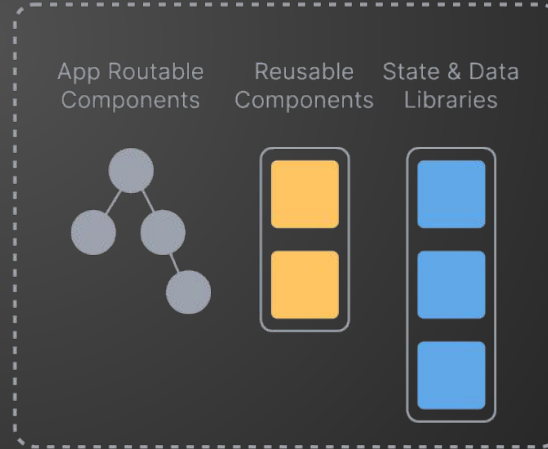
## Monolith vs Monorepo structure

A Monorepo is a **single repo** containing **multiple distinct packages**, with a **well defined structure**

Monolith App Repo



Modular App Repo



**Monorepos**

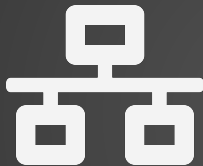
# Why use Monorepos?

What are the situations solved by Monorepos.

## Use cases of a Monorepo



Component / Util  
Libraries



Microservices &  
Functions



Whitelabel &  
Cross Platform  
Apps



Server + Frontend  
Bundles

## Benefits over Monoliths and Polyrepos



Code & Tooling Reuse



Single source of truth



Standardization



Parallel Builds



Caching



Ready for Publishing

**Monorepos**

# Why use Turborepo

What to expect from Monorepo tooling

## Monorepo Tooling

Package & Dependency  
Tooling

Yarn Workspaces  
NPM Workspaces

Task Runners & Build  
Tooling

Package Publishing  
Tooling

NX

Lerna

Turborepo

---

Pnpm & Rush



## Use Case: React Native + Web Monorepo

Package & Dependency  
Tooling

Task Runners & Build  
Tooling

Package Publishing  
Tooling

Yarn Workspaces  
NPM Workspaces

NX (Out of scope)

Lerna (Poor build tools)

Yarn Workspaces

Turborepo

Simple Path

Pnpm & Rush (Poor build tools & large complexity)

**Monorepos**



# Demo time!!

React Native and Web Demo

## Key Changes

**Yarn 3** - Workspace hoisting limits to reduce import code changes\*

**Turborepo.json** - Configure build/task scripts and run order

**Metro.config.js & Next.config.js** - Add monorepo transpile support

\*if hoisting is not limited:

**Podfile & Build.gradle** - Add monorepo root node\_module imports

## Resources

<https://monorepo.tools> - General Monorepo Understanding

<https://docs.expo.dev/guides/monorepos/> - Expo guide for Monorepos

<https://github.com/tkdev/ex-turborepo-demo> - This demo

<https://qmo.io> - Quantum Mob

<https://www.meetup.com/toronto-react-native/> - React + Native Toronto



# Questions?