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Introduction to Monorepos

Monorepos streamline code management for large projects.

DEFINITION

A monorepo is a single repository that houses multiple projects or packages, facilitating easier collaboration and dependency management. It simplifies version control and code sharing across teams.

KEY CONCEPTS

Single Repository

All code for various projects is stored in one central location.

Code Sharing

Teams can easily share and reuse code across different projects.

Dependency Management

Dependencies are managed collectively, reducing version conflicts.

Consistent Tooling

Standardizes tools and configurations across all projects in the repo.

Simplified CI/CD

Continuous integration and deployment processes are streamlined for all projects.

EXAMPLES

- Google uses a monorepo for its codebase to enhance collaboration.
- Facebook manages multiple applications within a single monorepo structure.
- A startup consolidates its frontend and backend services in one repository.

MEMORY TIPS

- ★ Think 'Mono' as 'One' for a single repository.
- ★ Remember 'Shared Code' to recall the benefit of collaboration.
- ★ Visualize a library where all books (projects) are on one shelf (repo).

COMMON MISTAKES

- ✗ Assuming monorepos are only for large teams or projects.
- ✗ Neglecting to manage dependencies properly, leading to conflicts.
- ✗ Overcomplicating the structure instead of keeping it simple.

QUICK RECAP

Monorepos consolidate multiple projects into a single repository, enhancing collaboration and dependency management. They simplify CI/CD processes and standardize tooling across teams, making them an effective choice for many organizations.