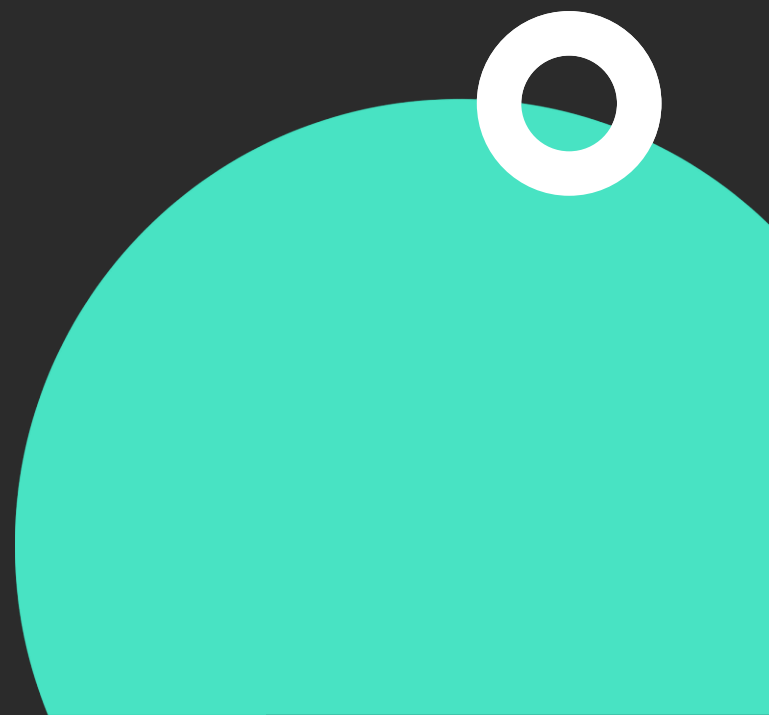# Gradle Hacks: Elevate Your Android Development with Version Catalogs and Boilerplate Optimization

Belal Khan

🐦 @probelalkhan

in in/probelalkhan

Sample Project

The Problems

- Dynamic Typing leading to runtime errors
- Limited IDE Support
- Complexity

Why Gradle KTS?

- Type Safety
- Modern Kotlin Features
- Better Code Navigation and Refactoring
- Better Auto Completion and IDE Features

Migrating to Kotlin DSL

- Let's migrate from groovy to kotlin.

Boilerplate Reduction

- Define common configuration inside a function.
- Reuse the function wherever required.

Version Catalog

- Gradle Version Catalogs streamline dependency management.

Advantages of using Version Catalog

- Centralized Dependency Management
- TypeSafe Reference
- Simplified Upgrades
- Enhanced Android Studio IDE Support
- Scalability in Multi-Module Projects

TypeSafe Project Accessor

- Accessing your modules in a TypeSafe Way

Code Challenge

- Complete Storage Module

Summary

- Problems with Groovy Based Gradle Files

- Migrating to Kotlin Gradle Files

- Creating functions for common configurations across multiple modules

- Adopted Gradle Version Catalogue for Dependency Management

- Learned TypeSafe way to access project modules

droidcon
academy