

# Android Apps with Kotlin: Tools and Testing

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WORKING WITH THE CORE TOOLS AND FEATURES



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# What to Expect from This Course



**Core tools and features**

**App debugging and error resolution**

**Build process, KTX, and Support Libraries**

**Local unit tests**

**Automated UI tests**



# What to Expect from This Module



**Demo project**

**Android Studio overview**

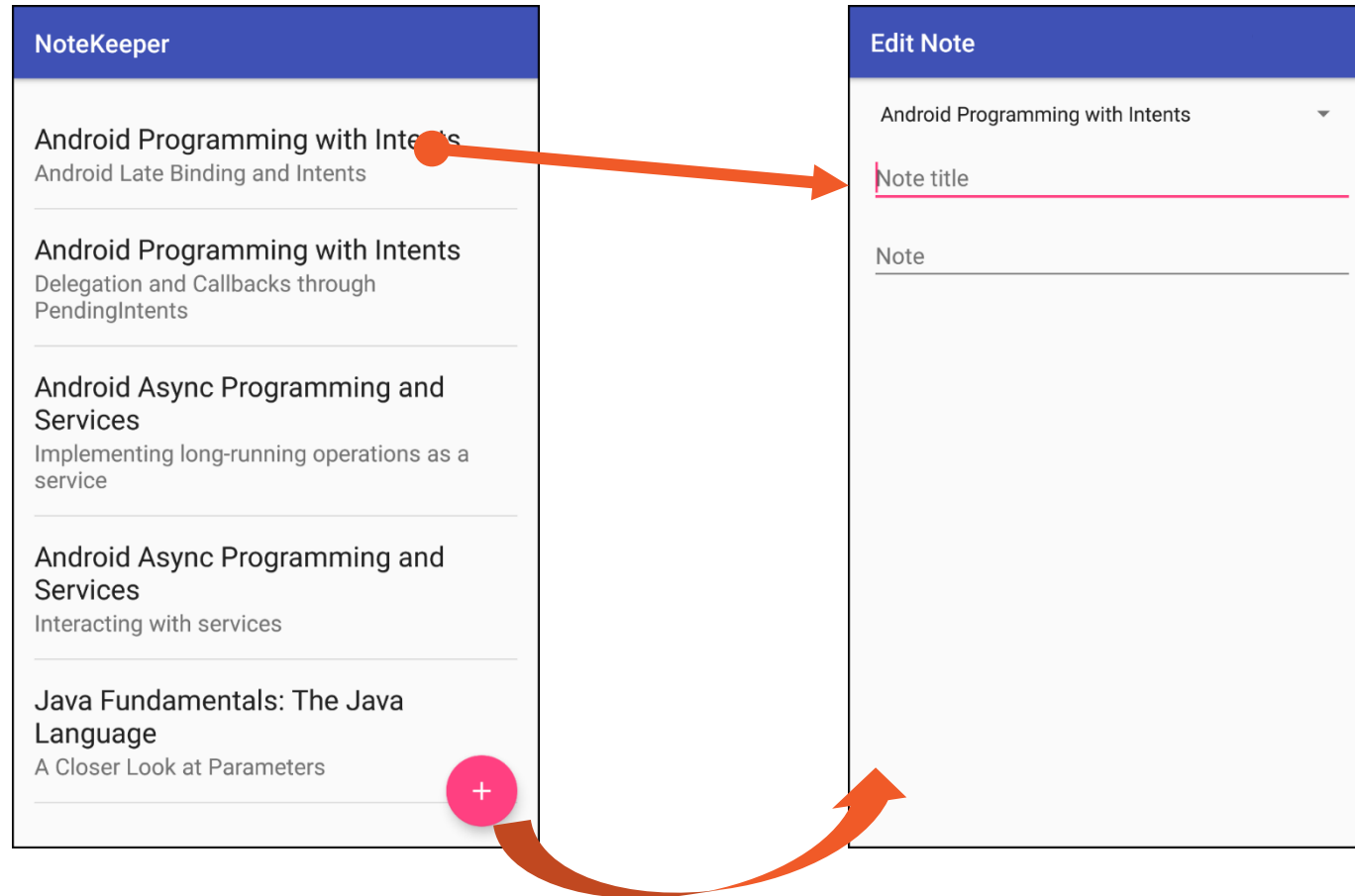
**Developer productivity**

**Converting Java code to Kotlin**

**Instant Run**



# Overview of Our App

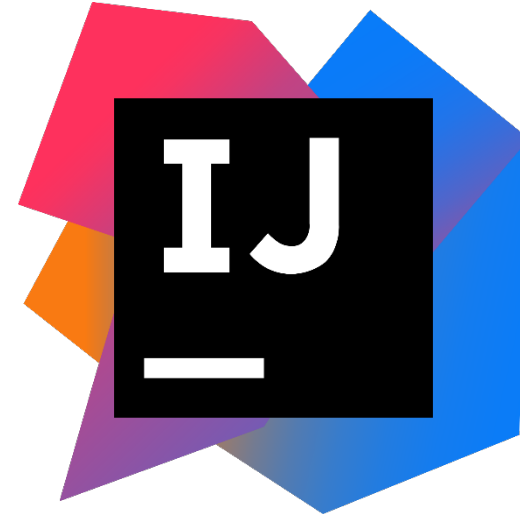


# Android Studio



**Android Studio**

Primary development environment  
Handles full dev cycle



**Built on IntelliJ IDEA**

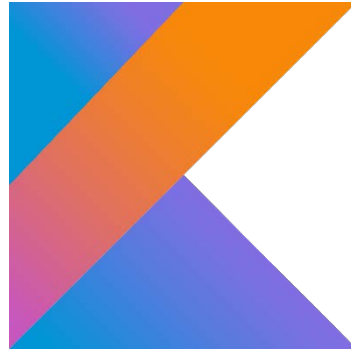
Consistent developer experience



# Android Studio Handles Installation Details



Java

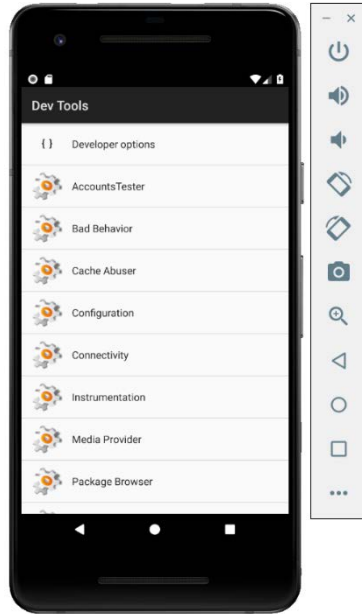


Kotlin



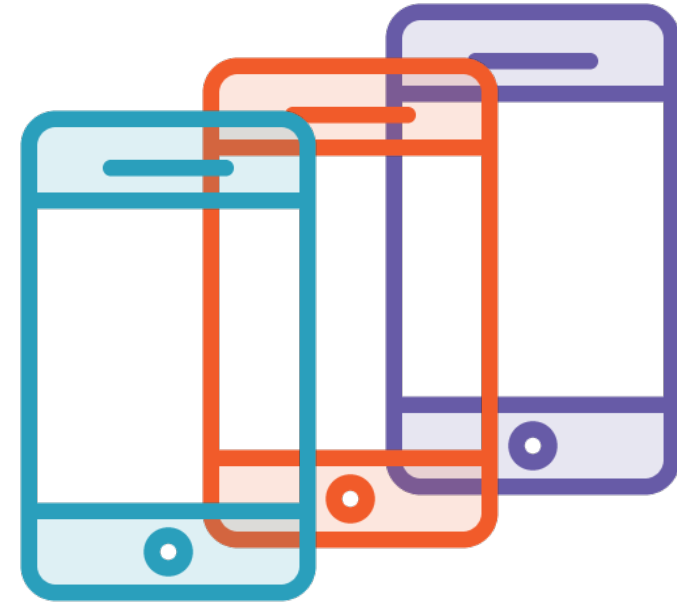
Android SDK

# Running Code



## Emulator

Run/debug apps directly on the desktop



## Physical Devices

Run/debug apps on real device  
May require installation of USB drivers

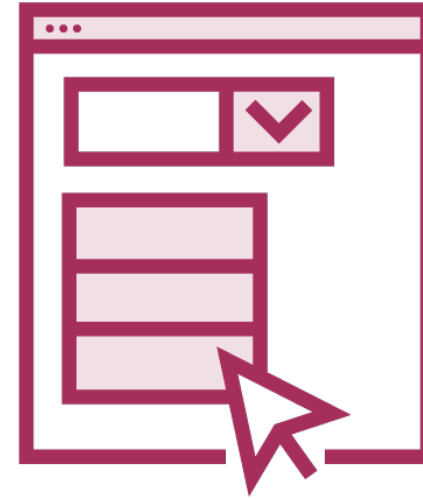


# Automated Testing



## Unit Testing

Runs logic tests directly on desktop  
Android Studio includes JUnit



## Automated UI Testing

Runs interactive tests on emulator/device  
Android Studio includes Espresso





# Summary



## Android Studio

- Central tool for Android development
- Handles most installation details
- Includes testing tools
- Rich set of productivity tools

## Sample code

- Large library of samples available
- Can access from Android Studio



# Summary



## Java code

- Android Studio can convert to Kotlin
- Can paste directly into Kotlin classes

## Instant Run

- Accelerates deploying code changes
- Does just enough to apply changes
- Often allows app to keep running

