

# Advanced Android using Kotlin HRDF Registration No. - 10001306528

**HRDC Fully Claimable Training** 

## **DESIGNED FOR**

Android Developers, Mobile Application Developers,
Software Engineers, Technical Leads, Backend Developers
with Mobile Integration, QA Engineers for Mobile
Applications, Full-Stack Developers with Mobile Focus



- 9 AM 5 PM
- AC hotel, Marriott, Penang, Malaysia





## Advanced Android using Kotlin

#### Who is this course for?

This course on Advanced Android Development using Kotlin is tailored for professionals seeking to elevate their expertise in mobile application development. Whether you're an experienced Android developer looking to deepen your understanding of advanced concepts or a tech enthusiast eager to delve into the intricacies of modern Android app architecture, this course is designed to meet your learning objectives.

## Why you should join?

Master advanced Android development essentials with our course. Gain expertise in architecture, performance, security, and data management to lead impactful projects. Stay ahead in mobile app development, boost your career, and innovate with confidence. Don't miss this chance to elevate your skills. Fnroll now!

## **(S)** What We Offer:

With our advanced Android development course, we provide:

- Cutting-edge Techniques: Explore advanced Android architecture, performance optimization, security, and data management strategies led by industry experts well-versed in mobile app development.
- Hands-on Projects: Engage in hands-on projects and real-world simulations, gaining practical experience and actionable insights to tackle complex Android development challenges with confidence.
- Ė Ongoing Support: Receive continuous support and personalized recommendations tailored to your Android development endeavors. Our dedicated team ensures your success in applying advanced Android concepts effectively, maximizing the impact of your mobile app projects.





## Course Outline

## 1. Modern Android Application Architecture

- 1.1. Jetpack Library
- 1.2. View Binding and Data Binding
- 1.3. ViewModel and LiveData
- 1.4. ViewModel and SharedFlow, StateFlow
- 1.5. Jetpack Navigation

#### 2. Exploring Jetpack Library

- 2.1. Jetpack Room
- 2.2. Jetpack Paging
- 2.3. Room Database
- 2.4. Work manager
- 2.5. Data Store
- 2.5.1. Migrate sharepreferences to datastore

## 3. RecyclerView

3.1. Rec . diffutils. snackbar

## 4. Static vs dynamic broadcast

#### 5. Remote of Bound Service

- 5.1. Defining the Remote Service Interface using AIDL
- 5.2. Implementing Remote Service
- 5.3. Interfacing with Remote Service

#### 6. Web Socket

#### 7. Android IPC mechanism

7.1. Messenger

## 8. Content provider

- 8.1. Content Provider Basics
- 8.2. Content Resolver
- 8.3. Implementing a Content Provider
- 8.4. file provider



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## Course Outline

#### 9. Direct boot mode

#### 10. Parcelable

10.1. Parcelable to Protobuf

#### 11. Retrofit

- 11.1. Retrofit Basics
- 11.2. API Integration using Retrofit
- 11.3. Retrofit with Ktor Client

### 12. Dependency Management

12.1. Dagger Hilt, Koin

## 13. Android Security

- 13.1. Security Basics
- 13.2. Permissions
- 13.3. Encryption and decryption using Android keystore, ciphers
- 13.4. Data security

## 14. Playstore API

14.1. Play Integrity API

## 15. App Performance Monitoring Tools

- 15.1. Leak canary
- 15.2. Strictmode
- 15.3. Android Performance Profiler
- 15.4. Microbenchmarking and baseline profile

#### 16. Gradle

16.1. Gradle Groovy







#### Pre-Requisites:

- Kotlin Language Knowledge Basic
- Android SDK Knowledge
- 🟅 Duration : 5 Days

## By the end of this course!

#### You will gain:

- **Master Advanced Android Development:** Learn advanced techniques in Kotlin for architecting, optimizing, and securing Android apps.
- **KEnhance Decision-Making:** Gain skills to extract insights from data, empowering informed decisions in app development.
- **X** Optimize App Performance: Streamline workflows and boost app efficiency, ensuring high-quality user experiences.
- **X Unlock Career Opportunities:** Expand your career prospects as a soughtafter Android developer in today's competitive market.

## If you struggle with:

- Complex Android Development Challenges
- \* Technical Implementation Hurdles
- Decision-Making Bottlenecks
- Resource Constraints
- Staying Competitive in Mobile App Market









## Implementing our course will lead to:

- Enhanced Advanced Android Development Skills
- ✓ Improved Decision-Making in App Development
- Efficient Resource Utilization in Android Projects
- Professional Growth as an Android Developer
- Organizational Success with High-Quality Android Applications

## **Timmins Training Consulting**

Timmins Training is a leading provider of training services in Malaysia, offering HRDC Claimable Trainings, Corporate Trainings, Corporate Onboarding Training, and Consulting services.

With over 8 years of experience, we serve various domains including Embedded Software Development, Full Stack Development, Mobile App Development, 5G, Business Intelligence, and more.

Our trainers are subject-matter experts with years of hands-on experience in their specialized areas. They bring practical insights to help you excel in your journey.

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+60 111 667 4727

raj@timmins-consulting.com

