Resources for Android Developer

Introduction to Android Developer:

Visit the following resources to learn more:

- developer.android.com
- Android Basics Nanodegree
- Android App Development Specialization
- Learn Android Development
- Android App Development Tutorial
- Android Development Track

Java Programming for Android:

Visit the following resources to learn more:

- Learn Java
- <u>Java Programming Masterclass</u>
- Java Programming and Software Engineering Fundamentals
- Java Tutorial

Building User Interfaces:

Visit the following resources to learn more:

- User Interface
- Developing Android Apps with Kotlin
- Android App Development Specialization
- Android UI Design Tutorial

Working with Activities and Intents:

Visit the following resources to learn more:

- Activities
- Android Basics Nanodegree
- Intents and Intent Filters
- Android Intents and Intent Filters
- Passing Data Between Activities

Fragments and UI Navigation:

- Fragments
- Android Fragments Tutorial
- Android Fragment Navigation
- Navigation Component
- Android Bottom Navigation Tutorial

Data Persistence with SQLite:

Visit the following resources to learn more:

- Android Developer Documentation Saving Data in SQL Databases
- <u>Udacity Developing Android Apps with Kotlin</u>
- YouTube Android SQLite Database Tutorial (by CodeWithChris)
- Android Content Providers (Documentation)
- Android Developer Documentation Room Persistence Library
- YouTube Android Room Database Tutorial (by Simplified Coding)

User Interface Design and Material Design:

Visit the following resources to learn more:

- Android Developer Documentation Design Guidelines
- Material Design Guidelines
- YouTube Android UI Design Tutorial (by CodeWithChris)
- <u>Udacity Material Design for Android Developers</u>
- Android Animation and Transitions (Documentation)
- Udacity Android Developer Nanodegree: User Interface

Background Processing and Multithreading:

- Android Developer Documentation Background Processing
- Android AsyncTask Documentation
- Android Threads and Handlers Documentation
- Android IntentService Documentation
- Android JobScheduler Documentation
- Android ANR (Application Not Responding) Documentation
- Udacity Developing Android Apps with Kotlin: Background Processing

Networking and Web APIs:

Visit the following resources to learn more:

- Android Developer Documentation Network Operations
- Retrofit Library Documentation
- Volley Library Documentation
- Understanding RESTful APIs
- Android JSON Parsing Tutorial (CodePath Android Guides)
- Handling Network Errors (Android Developer Documentation)
- <u>Udacity Developing Android Apps with Kotlin: Networking</u>

Working with Sensors and Location:

Visit the following resources to learn more:

- Android Sensor Overview
- Android Location and Sensors (Developer Documentation)
- Google Play Services Location
- Android Geofencing (CodePath Android Guides)
- <u>Udacity Developing Android Apps with Kotlin: Sensors</u>

Notifications and Background Tasks:

Visit the following resources to learn more:

- Android Developer Documentation Notifications
- NotificationCompat Documentation
- Firebase Cloud Messaging (FCM) Documentation
- WorkManager Documentation
- Android Background Processing and Multithreading (Developer Documentation)
- <u>Doze Mode and App Standby (Developer Documentation)</u>
- <u>Udacity Developing Android Apps with Kotlin: Background Processing</u>

Advanced UI Components:

Visit the following resources to learn more:

ViewPager Documentation

- RecyclerView Documentation
- YouTube Android ViewPager Tutorial (by CodeWithChris)
- ConstraintLayout Documentation
- YouTube ConstraintLayout Tutorial (by CodingInFlow)
- Custom Views Documentation
- Creating Custom Views in Android (CodePath Android Guides)
- Android Gesture Detection (Developer Documentation)
- <u>Udacity Developing Android Apps with Kotlin: Advanced UI</u>

Security and Privacy:

Visit the following resources to learn more:

- Android Secure Coding Guidelines
- <u>BiometricPrompt Documentation</u>
- Android Permissions Overview
- Android User Data and Identity (Developer Documentation)

Material Design and User Experience:

Visit the following resources to learn more:

- <u>Material Design Guidelines</u>
- Android Material Components Documentation
- YouTube Material Design App Tutorial (by CodingInFlow)
- Responsive Design Guidelines (Developer Documentation)
- YouTube Android Animations Tutorial (by CodeWithChris)
- Android Transitions (Developer Documentation)
- <u>Udacity</u> <u>Material Design for Android Developers</u>
- <u>Udacity Android Developer Nanodegree: Advanced Android App Development</u>

Location and Maps Integration:

- Google Maps Platform Documentation
- Android Developer Documentation Location and Maps
- Android Geocoding (Developer Documentation)
- Android Geofencing (CodePath Android Guides)

Performance Optimization:

Visit the following resources to learn more:

- Android Developer Documentation Performance
- Android Profiler Documentation
- Reducing APK Size (Developer Documentation)
- Efficient Data Fetching with Paging (Developer Documentation)
- <u>Udacity Android Performance</u>

Testing and Debugging:

- Android Developer Documentation Testing
- Android Testing Documentation
- <u>IUnit Documentation</u>
- Espresso Documentation
- Android Debugging Documentation
- <u>Udacity Android Developer Nanodegree: Advanced Android App Development</u>