

Android Development with Kotlin

Unit 1 – Get started with Kotlin

Lesson 1. Getting Started & Kotlin Basics

- 1.0: Getting Started & Kotlin Basics
- 1.1: Getting Started
- 1.2: Kotlin Basics

Lesson 2. Functions

- 2.1: Functions

Lesson 3. Classes and Objects

- 3.1: Object-oriented programming
- 3.2: Extensions

Unit 2 – Introduction to Android

Lesson 4. Build your first app

- 4.0: Install Android Studio
- 4.1: Get started
- 4.2: Basic app anatomy
- 4.3: Image resources and compatibility

Lesson 5. Layouts

- 5.1: LinearLayout using the Layout Editor
- 5.2: Add user interactivity
- 5.3: ConstraintLayout using the Layout Editor
- 5.4: Data Binding basics

Lesson 6. App Navigation

- 6.1: Create a fragment
- 6.2: Define navigation paths
- 6.3: Start an external Activity

Unit 3 – Android Application Architecture

Lesson 7. Activity and Fragment Lifecycles

- 7.1: Lifecycles and logging
- 7.2: Complex lifecycle situations

Lesson 8. App Architecture (UI Layer)

- 8.1: ViewModel and ViewModelFactory
- 8.2: LiveData and LiveData observers
- 8.3: Data binding with ViewModel and LiveData
- 8.4: LiveData transformations

Lesson 9. App Architecture (Persistence)

- 9.1: Create a Room database
- 9.2: Coroutines and Room
- 9.3: Use LiveData to control button states

Lesson 10. Displaying Lists with RecyclerView

- 10.1: RecyclerView fundamentals
- 10.2: DiffUtil and Data Binding with RecyclerView
- 10.3: GridLayout with RecyclerView
- 10.4: Interacting with RecyclerView items
- 10.5: Headers in RecyclerView

Lesson 11. Connect to the Internet

- 11.1: Getting data from the internet
- 11.2: Loading and displaying images from the internet
- 11.3: Filtering and detail views with internet data

Lesson 12. WorkManager for Background Processing

- 12.1: Repository
- 12.2: WorkManager

Unit 4 – App Design

Lesson 13. Designing for Everyone

- 13.1: Styles and themes
- 13.2: Material Design, dimens, and colors
- 13.3: Design for everyone