

Android curriculum roadmap

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Background material

This section covers what background a student needs in order to become a successful mobile/android developer.

A list of Udacity courses can be seen here: <https://www.udacity.com/courses/android>

Pre-work

1. Machine setup
 - a. Install Android Studio: [udacity-course](#).
2. Basics of HTML and XML
 - a. Udacity courses: [android-layouts-basics](#),

Introduction to programming & Java

Covers the basics of Java programming concepts.

1. Course: Java basics, [Udacity-link](#)
 - a. Concepts,: Basics of Java programming
 - b. Courses: [intro-java-ud282](#),
- 2.

Introduction to Android 101 (basics)

1. Course: Android basics [Udacity-link](#)
 - a. Concepts: Basics of Android programming
 - b. Pre-req: No programming experience. Just need to have used smartphone
2. Courses: [user-interface-ud834](#), [user-input-ud836](#), [multiscreen-apps-ud839](#), [networking-ud843](#), [data-storage-ud845](#)
3. Reading material: Android developer fundamentals: [concepts](#), [practicals](#)

Introduction to Android 102 (intermediate)

Covers the concepts in more detail, but can still be considered basics

1. Object oriented concepts of Java
 - a. Course: [oop-java-ud283](#)

- b. Concepts: inheritance, collections, OOP.
- 2. Developing Android apps [Udacity-link](#).
 - a. Concepts: Intents, lifecycle, background tasks, UI polish, data storage
 - b. Courses: [develop-apps-ud851](#)
- 3. UX design for mobile.
 - a. Concepts: mobile constraints, UX for android-amazement
 - b. Course: [UX-mobile-ud849](#)
- 4. Material design for Android
 - a. Concepts: graphic design, motion,
 - b. Course: [material-design-ud862](#)
- 5. Android developer course fundamentals
 - a. Course: [youtube playlist](#), [slides](#), [concepts](#), [practicals](#)

Advanced Android 201 (advanced)

Covers more advanced concepts suitable for continuing education.

- 1. Advanced Android app development.
 - a. Concepts: Fragments, libraries, media, location, widgets, testing (espresso), publishing to play-store.
 - b. Course: [advanced-android-ud855](#),
- 2. Firebase for Android
 - a. Concepts: storage, notifications
 - b. Course: [firebase-android-ud352](#)
- 3. Firebase analytics
 - a. Concepts:
 - b. Course: [firebase-analytics-ud354](#)

Coding challenge

Create an app that shows the

ADB commands

```
adb install -r /path/to/app.apk  
adb install -r C:\path\to\app.apk
```