

ANDROID DEVELOPMENT WITH KOTLIN



This course is designed for individuals who are interested in learning Android development with Kotlin

Online Mode

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ABOUT CODERSARTS

Codersarts is a product of Sofstack

SofStack is software development company based in Noida, India. We are serving its clients across the globe. As passionate professionals of technology, Here you will find all sorts of services about our work as a Web Development, Mobile App Development, Technology Solutions for Business, Hiring dedicated developer for Project, IT Solutions, Database Development, Programming expert Help solutions. we provide all the programming expert help, guidance, and support my clients need in order to get good grasp of understanding and scaling business at the highest level.

ABOUT THIS PROGRAM

Creating a comprehensive Android Development with Kotlin syllabus involves a variety of topics and concepts that students will need to learn to become proficient in Android app development using Kotlin.

Target Audience:

This course is designed for individuals who are interested in learning Android development with Kotlin, including:

- **Beginners:** No prior programming experience required.
- **Aspiring Android developers:** Looking to build their first real-world Android apps.
- **Existing programmers:** Wanting to transition to Android development or learn Kotlin.

PROGRAM CURRICULUM

1 Introduction to Android Development

2 Kotlin Fundamentals

3 User Interface (UI) Design

4 Activity and Fragment Lifecycle

5 UI Components and Widgets

6 Data Storage

7 Networking and APIs

8 Working with Images and Multimedia

9 User Authentication and Authorization

10 Building a Complete App

PROGRAM CURRICULUM

11 Advanced Topics

12 App Deployment and Monetization

13 Graduation Project

MODULE 1: INTRODUCTION TO ANDROID DEVELOPMENT

- Introduction to Android and its ecosystem
- Setting up the development environment (Android Studio, SDK)
- Overview of Android project structure
- Creating and running your first Android app

MODULE 2: KOTLIN FUNDAMENTALS

- Introduction to Kotlin as a programming language for Android
- Variables, data types, and basic syntax
- Control flow (if statements, loops)
- Functions and lambdas in Kotlin

MODULE 3: USER INTERFACE (UI) DESIGN

- Understanding Android layouts (XML)
- Designing responsive user interfaces
- Working with views and view groups
- Using XML attributes for UI customization
- Handling user input and events

MODULE 4: ACTIVITY AND FRAGMENT LIFECYCLE

- Understanding the Android activity lifecycle
- Creating and managing activities
- Fragments and their lifecycle
- Navigation between activities and fragments

MODULE 5: UI COMPONENTS AND WIDGETS

- Working with buttons, text fields, and other UI widgets
- Creating custom UI components
- Using RecyclerView for dynamic lists
- Implementing Material Design principles

MODULE 6: DATA STORAGE

- Working with SharedPreferences for simple data storage
- Using SQLite databases for structured data
- Implementing data models and CRUD operations
- Introduction to Room Persistence Library

MODULE 7: NETWORKING AND APIS

- Making HTTP requests with Retrofit
- Handling JSON data with Gson
- Integrating RESTful APIs into your app
- Best practices for network calls

MODULE 8: WORKING WITH IMAGES AND MULTIMEDIA

- Loading and displaying images with Picasso or Glide
- Capturing photos and videos with the camera
- Playing audio and video in Android apps

MODULE 9: USER AUTHENTICATION AND AUTHORIZATION

- Implementing user authentication
- Using Firebase Authentication for secure sign-in
- Managing user sessions and access control

MODULE 10: BUILDING A COMPLETE APP

- Designing and building a complete Android app project
- Implementing advanced features and functionalities
- Testing and debugging your app
- Preparing your app for publication on the Google Play Store

MODULE 11: ADVANCED TOPICS

- Implementing location-based services
- Push notifications with Firebase Cloud Messaging
- Working with background services
- Security and encryption in Android apps

MODULE 12: APP DEPLOYMENT AND MONETIZATION

- Preparing your app for release
- Uploading your app to the Google Play Store
- Monetization strategies (e.g., ads, in-app purchases)

MODULE 13: GRADUATION PROJECT

- Final project assignment to apply learned skills
- Building a unique Android app from scratch
- Presenting and showcasing your project



Please note that the syllabus can be adjusted and customized based on the specific needs of students and the depth of knowledge you intend to cover in each module. Additionally, including practical hands-on projects and assignments throughout the course will enhance the learning experience for students.

PROGRAM REQUIREMENTS

- Interest to learn programming
- Computer with internet access
- A computer - Windows, Mac, and Linux are all supported. Setup and installation instructions are included for each platform
- Basic English understanding
- Basic Mathematical arithmetic

PROGRAM HIGHLIGHTS

- Online Course
- Certificate of completion
- Direct 1-on-1 link to your mentor
- Job-ready Portfolio on GitHub
- Hands-on, project-based learning
- Build internship-grade tech-projects
- Grow your career with real work experience
- Ongoing sessions and expert advice, on your terms.
- Work with leading tech mentors and gain access to personalized guidance .
- Regular check-ins and personal study plans, your mentor can help you with actionable support

PROGRAM DETAILS

DURATION

Custom

PROGRAM FEES

share via email

PROGRAM MODE

ONLINE

FOR ADMISSION

Contact us on
contact@codersarts.com

Our Executive will get in touch with you, for your smooth on-boarding in this program.