

# ANDROID COURSE

## Introduction and Version Control

- Overview of Mobile App Development
- Introduction to Android
- Setting up Development Environment
- Version Control with GitHub

## Programming Fundamentals

- Basics of Java/Kotlin Programming
- Object-Oriented Programming (OOPs) Principles
- Open Source Challenge (Contributing to Open Source )

## Advanced Android Concepts

- Nullables in Kotlin
- Glide Library for Image Loading
- Handlers for Background Tasks
- Error Handling Strategies
- MVVM Architecture
- Data Passing in Fragments
- ViewModel and LiveData
- Interfaces and Lambda Expressions
- Working with Mutable Data
- Understanding App Lifecycle

## Devops

- CI/CD
- Docker

## Networking and Certifications

- Networking Essentials for Mobile Apps
- Overview of SSL, TLS, and HTTPS
- Certifications in Mobile App Development
- Debugging Techniques for Android
- Introduction to Docker for Mobile Development

## Asynchronous with Coroutines

- Understanding Coroutines in Kotlin
- Implementing Asynchronous Operations
- Best Practices for Coroutines in Android

## Server Communication and APIs

- Introduction to Server Communication
- RESTful APIs and their Principles
- Integration of ChatGPT API
- Consuming APIs with Retrofit
- Building an OCR + ChatGPT API App

## Deployment

- Clean Code
- App Publishing
- App Testing

## Final Projects

- OCR + ChatGPT API App (Built in the Server Communication and APIs module)
- Wallpaper App using Retrofit (Built in the Networking and Certifications module)