#### **Android**

Duration: 90 days

## Core java

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- 1. Introduction of Android Platform
  - Android SDK Features
  - Native Android Applications
  - Android Development Framework
  - > Android Application Architecture
  - Installation
  - > Introduction to Android Studio

# 2. Activity

- Application Process States and Priorities
- > Types of Applications
- Activity States
- > Activity Lifecycle
- > Assigning User Interfaces to Activities
- Practical Example Creating a Login Form
- 3. Intents
  - Using Intents to Launch Activity
  - > Explicit Intents
  - > Implicit Intents
  - Returning Results from Activity
  - Practical Example Developing Application to move from Login to Home Page
  - Practical Example Developing Application to open a Webpage from an Activity
- 4. Lists and Adapters
  - Introduction to ListView and Adapters
  - Introduction to RecyclerView and ViewHolder.

- Practical Example Developing an order history.
- 5. Tabs and ViewPager
  - Introduction to TabView and ViewPager
  - ➤ Practical Example Developing a Whatsapp like dashboard.
- 6. Content Provider
  - > Introduction
  - Creating the Content Provider
  - Practical Example: Fetching images from Gallery.
  - Practical Example: Capturing images via Camera.
- 7. Fragment
  - > Fragment Lifecycle
  - Creating Fragments
  - > Fragment States
  - Interfacing between Fragments and Activities
  - > Fragments without User Interface
  - > Practical Example Developing a Gmail like dashboard.
- 8. Databases
  - SQLite Database
  - Cursors
  - ➤ SQLiteOpenHelper
  - Working with SQLite Database
  - Practical Example : Developing Application to create and store data in SQLite Database
- 9. Internet
  - Using Internet Resources
  - Practical Example : Downloading files from Internet
- 10. Notifications
  - Notification Introduction
  - > Introduction to FCM

Practical Example : Creating Application to send a Notification

#### 11. Audio and Video

- ➤ Playing Audio
- Practical Example : Creating an Application to play Audio Files
- Playing Video
- Practical Example : Creating an Application to play Video Files

## 12. Maps and Location based services

- Using Location Based Services
- > Finding Current Location
- Map Based Activity
- Getting the maps API keys
- Configuring and using map views
- Practical Example : Pinning views to the Map and Marking Map Position

## 13. REST Services

- ➤ Introduction to Volley and GSON.
- Consuming RESTful APIs.

## 14. Third Party Integration

- Picasso Image handling library.
- Crashlytics handling crashes and exceptions.