



Have you ever thought of creating your own mobile app? If yes, then join us in the adventurous journey of creating an app of your own using android.

Android is an open source platform, with no up-front fees, and developers enjoy many benefits over other competing platforms. Android is being positioned to address the growing needs of the mobile marketplace. This course is intended for those who have interest in programming. Prior programming experience will definitely be an advantage, though it is not mandatory.

Introduction to Android:

- Features and Versions of Android
- Availability of various Android devices in the market
- History of Android
- About Android Apps
- Pre-requisites (System configuration/Hardware configuration/Software configurations) required to start developing android
- Android Environment Set-up

Fundamentals of Android Studio:

- Android Studio Fundamentals
- Creating a simple Project: Hello Learner
- Understanding Android Components like Activities, Services, Content Providers, Broadcast Receivers and Views

Basics of Java:

- The Java Language, Java Virtual Machine (JVM), JDK
- Setting up Java Environment
- Main Java Program
- Variables and Data Types
- Primitive types
- Reference types
- Arrays
- If Statements
- Operators
- Decisions, Loops

Object Oriented Programming in Java:

- Object Oriented Programming (OOPS)
- Classes and Objects
- Constructors
- Overloading
- Packages
- Inheritance, Multiple Inheritance and Exception
- Polymorphism

Handling Events

- Introduction of Event Handling
- Declarative, Programmatic Event Handling
- Working with Text and Buttons

Working with Multiple Activities

- Activity, View and Layouts
- Maps
- Component Activation
- Pass Data to another Activity - GCF Algorithm
- Implicit Intents - Opening an http request
- Activity Life Cycle

UI Elements

- Themes and Colors
- AppBar, Fragments

Running in the background

- Long running tasks, Async task

Debugging

- Syntax Errors, Logic Errors and Runtime Exceptions

Data Persistence

- Shared preferences - Application level shared preferences

Internal Storage

- To work with storage
- App Number Shapes
- Simple application of control structures
- FizzBuzz problem
- To print a 5×5 multiplication table
- Methods

Media: Images, Video & Sound

- Layout
- Fading animations

Case Study: Game Connect 3

Using Advanced Android features

- List views
- Times tables Apps
- Timers in Android App
- Showing & hiding UI elements
- Downloading web content and images
- Using Advanced string manipulation
- Processing JSON data
- App what's the Climatic condition

Using Maps & Geolocation

- Using maps in your Apps
- Customizing your maps
- Getting the user's location
- Showing the users location on map
- Getting information about locations

Using Permanent data storage

- Storing data permanently
- Customizing the Action Bar
- Using Alert dialogs

Database

- SQLite databases
- Advanced SQLite

The Extras

- Working with Bluetooth
- Using version control
- Setting up Firebase
- Including Ads with Admob
- Multi-Screen mode

Using Android wear mini-course

- Hello World with Android wear
- Adapting Apps for different watch faces

Advanced Features

- Working with cards, lists
- Voice input and Communicating with the users phone
- Custom watch faces

Publishing App

- Submitting your App to Google Play
- Setting up a marketing website – WordPress

Getting Familiar with codes of various apps

- OLA
- Messenger
- Twitter
- YouTube
- Facebook
- Online Shopping Apps

Case Study: Jurassic World Alive game

App Marketing, Distribution and Release

- App distribution
- Preparing the App for release
- Releasing the App
- Using Marketing & App Search Engine strategies
- Pricing Strategies

Kotlin for Android

- Introduction to Kotlin language
- Basic of Kotlin language
- Creating Hello Learner project using Kotlin