

## Android App Development Course Content

### Course Description:

Android is a mobile OS maintained by Google using C++, Kotlin and Java programming language to develop apps on the Android platform. The android studio is the best IDE for android development which includes Android SDK, NDK, tools, and emulators.

Demand for developing apps constantly evolving, so get started with our online training program to learn all core concepts of android app development from scratch to become an android developer. Prior knowledge of any programming language will be beneficial to take the tutorial.

Android app development online training includes all concepts like architecture, user interfaces, activities, controls, layouts, services, content providers, and multimedia APIs and testing and deploying. As a part of this course, you will know how to create widgets, customize list view, grid view, spinners using audio, video and SQLite database and finally publish it on google play store. Practical hands-on experience will be gained by exercising assignments and project work which are included within the course. Our training methodologies will enhance your skills to become a competent android app developer.

### Course Content:

#### Introducing the Android Platform

- Establishing the development environment
- Analyzing components of the architecture

#### Leveraging Application Fundamentals

##### **Building mobile applications**

- Creating activities to process user input
- Implementing views to build the User Interface (UI)
- Packaging applications for deployment
- Developing unit tests

##### **Supporting asynchronous behavior**

- Performing background tasks with services
- Communicating with intents

#### Creating User Interfaces

##### **Selecting visual components**

- Building the layout
- Connecting a view to an activity
- Positioning form elements

##### **Working with resource declarations**

- Declaring component definitions and layouts
- Handling multiple screen resolutions
- Localizing applications

## Processing User Input

### **Communicating with the user**

- Creating and displaying Toast
- Generating status bar notifications
- Logging key application events

### **Interacting with the UI**

- Responding to user input events
- Launching activities with intents
- Writing Java event handlers
- Generating context and option menus

### **Managing the activity lifecycle**

- Integrating with the Android system
- Persisting data in response to notifications

## Persisting Application Data

### **Selecting storage options**

- Contrasting internal and external storage locations
- Saving application configuration with SharedPreferences

### **Manipulating the SQLite database**

- Executing queries to locate information
- Specifying column selections with projections

### **Consuming and creating content providers**

- Accessing shared data resources
- Addressing content providers with URIs

## Maintaining System Responsiveness

### **Avoiding Application Not Responding (ANR) errors**

- Unloading the UI thread
- Designing for asynchronous execution

### **Building background services**

- Launching IntentServices
- Declaring services in the manifest

## Exchanging Data over the Internet

## **Interacting with server-side applications**

- Synchronizing Android devices with servers
- Communicating via HTTP clients

## **Developing clients for web services**

- Connecting to RESTful services
- Creating and parsing JSON

## **Enhancing the User Experience**

### **Incorporating the Action Bar**

- Manipulating objects with drag and drop
- Supporting orientation and multiple screen resolutions with resources
- Combining fragments into a multi-pane UI

### **Leveraging geolocation and mapping capabilities**

- Plotting positions on Google Maps
- Establishing location through GPS, Cell-ID, and WiFi

## **Uploading to Playstore**

### **Publishing the App in PlayStore**

- Setting up the App Icon
- Preparing for Publishing
- Publishing the App in the Android market
- Providing information for the Play Store