# Android

Android is a software stack for mobile devices that includes an operating system, middleware and key applications. TED Pro provides android training according to the current requirement of IT industry. Android contains an operating system based on the Linux kernel, required middleware and some essential applications. Android platform was initially developed by Android Inc. The Android SDK provides the tools and APIs necessary to begin developing applications on the Android platform using the Java programming language. Android can Run Multiple Apps at the Same Time. Android has is a customizable home screen which keeps active widgets right at your fingertips, always accessible and always visible – without having to launch an application first.

TED Pro is an Android Training institute with proven expertise in training useful android applications as well as providing hands-on training to budding android developers. TED Pro have a dedicated team of android trainers who provide intensive and dedicated training on all core and general aspects of android development. We have mastered the Android SDK and can effortlessly transfer our skills and knowledge to you through our android training course.

So, right now android is becoming very good platform for IT professionals who want to switch their career and as well as seeking android job oriented training from TED Pro, fresher can get the job easily in IT industry.

## Android Architecture

- System architecture of Android
- Activities
- Android Components
- Android Manifest

## **Android Development Tools**

- Installation of the Android Development Tools (ADT)
- Creating Android projects
- Defining Devices, Emulator and Images

## **Defining Android User Interfaces**

• Views



- Layouts
- Accessing widgets in Activities
- View interaction Layouts

## **Development of different screen sizes**

- Screen sizes and Densities
- Using device independent pixel (dp)
- Converting between pixels and dp

## **Intents and Activity Communication**

- Intents
- Intent Filter
- Defining Activities
- Activity stack

## ActionBar

- ActionBar vs OptionMenu
- Defining an ActionBar menu
- Custom Views in the ActionBar
- Contextual action mode

## **Styling and Themes**

- Styling of Views
- Using Themes for styling Activities
- Extending Android themes

## List Views and List Activity

- ListView
- ListActivity
- Defining List Adapter
- Performance Optimization



## **File based Persistence**

- Preferences
- File and Access restrictions
- Permissions

## Security

- Androids security concept
- Using Permissions
- Defining Permissions

## **Network Communication**

- Apache HTTP Client
- REST
- JSON
- XML

## **Asynchronous Processing in Android**

- Multitasking
- User Interface Updates via Threads
- Androids Limits Application Not Responding
- Using Handler for message communication
- Using AsyncTask

## **SQLite and Content Provider**

- Using the SQLite Database in Android
- Outlook: Using and defining Content Provider
- Outlook: Loader

### Services

- Android System Services, Alert Manager, Vibrator Manager, etc
- Outlook: Definition of own Services



## **Broadcast Receiver**

- Definition of a Broadcast Receiver
- Registration of own Broadcast Receiver

### **Notification Manager**

- Using the Notification Manager
- Notification Builder
- Rich Notifications

## **Canvas API for custom Views**

- Defining custom Views
- Canvas API
- View state persistence

### **Location services and Google Maps**

- Location based Services
- Google Maps
- Map-Overlays
- Geocoding / Reverse Geocoding
- Using GPS, Wifi.

#### Home screen Widgets

- Remote Views and Pending Intents
- Updates with a fixed time interval
- Updates with Services

#### **Using Android Sensors**

- Accelerometer RemoteViews and Pending Intents
- Orientation
- Camera

## **Audio and Video**



- Playing and recording audio
- Playing and recording video

# **Build Management**

- Apache Ant
- Maven

# **Professional Testing**

- Overview Android testing
- Android Test Project Updates with a fixed time interval
- Using Robotium
- Using Robolectric

# **Targeting Tablets and Smartphones**

- Overview Fragments
- Multi-Pane Layouts with Fragments
- Designing layouts for tablets and phones

## Deployment

- Deployment Option
- Markets (Google Play / Amazon)

