

## **Session 1**

Introduction to Android technology

Structure of Android applications

Students will install the SDK Tools, Eclipse, and other Tools or Android Studio as feasible for the session.

Students will be informed well in advance with the installation process.

Students will get ready to develop by creating Android virtual device and setting an Android Device.

Starting with Manifest

## **Session 2**

Working with Activities

- o Creating Skelton Application
- o Using XML based layouts
- o Using Basic Widgets
- o Working with Containers
- o Using Selection Widgets
- o Applying Menus and Fonts
- o Showing Pop-up Messages
- o Dealing with Threads
- o Handling Activity Lifecycle events

By this time the students will be able to develop the simple buttons, menu box, how to create a toast, pop up messages, etc and other basic structures of the app.

## **Session 3**

Intents

- o Create Intent Filters
- o Launching Activities
- o Introspection with action
- o Handling Rotation

## **Session 4**

Data stores, Network services and APIs

- o Setting Preferences
- o Accessing the Files
- o Working with Resources
- o Managing Local Databases
- o Communicating with Internet

Students will learn how to create databases and connect your app to the internet.

## **Session 5**

### **Content Provider and services**

- o Using a Content Provider
- o Creating a Content Provider
- o Managing Permissions
- o Creating and Using the Services
- o Creating Alerts with Notifications

Students will learn to set permissions for apps that are needed by the user.

## **Session 6**

### **Telephony and SMS**

How to send an automated message using your App to the user.

### **Audio, Video and using the Camera**

Students will learn to use the media player / Camera.

Sample activity is creating a Media player to play audio/video songs.

Publishing your App.