

# Android App Development

## Day 1 (Session 1)

### 1. Introduction to the Android world

- Android Architecture
- IO's Vs Android
- Scope as an Android App Developer
- Understanding Eclipse IDE
- What is API Levels?

### 2. Understanding the Building Environment for Android

- Basic programming languages intro: Java and XML
- What is Front-End and Back-End environment
- Designing Front-end through XML
- Designing Backend through JAVA
- Practicing various design Layouts

### 3. Understanding Layouts

- What are Layouts and Widgets?
- Working with various layouts: Linear, Relative, Table, Frame
- Working with various Widgets: Text-View, Edit-Text, Buttons, Image-Views, and Scroll View etc.
- Practicing Layout Nesting's on various Layouts
- What is Weight-sum and Gravity?

## Day 1 (Session 2)

### 1. Getting familiar with Activity

- What are Activity and its Life-Cycle?
- Designing an Activity
- Practicing its Life-Cycle

- What is Manifest File
- Registering the Activity in Manifest File
- Setting up the Android Virtual Devices
- Testing your Hello World Application

## **2. Introduction to Intents**

- What are Intents
- Types of Intents: Explicit and Implicit
- Starting another Activity using both types of Intents
- What is Bundle?
- Sending Data from one Activity to another
- Building Camera application, fetching image using Intent

## **3. Understanding various Notifications**

- What is Toast?
- What is Dialog and Alert-Dialog?
- What is action-bar Notification?

## **Day 2 (Session 3)**

### **1. Developing Applications**

- Splash Screen Application
- Music Player Application
- SMS Application
- Camera Application
- Email Application
- Text-To-Speech Application

## **Day 2 (Session 4)**

### **Competition**

After the hand on theory and practical experience from the workshop, a competition will be conducted for the participants.

### **Certificate Distribution**

On behalf of Techtron Technologies Certificate of Merit will be provided to all Zonal Round Winners and Certificate of Participation will be provided to all the Zonal Round Participants (Excluding Merit Participants).