

# Android Programming Workshop

## **Course Contents:**

### **Introduction to Android**

What is Android? • Android Versions • Android Architecture • Android Features

### **Installing Android**

Installing JDK, Eclipse, Android SDK, ADT, Android Platform • Developer Documentation • Samples

### **Hello Android – Creating your first Android Project**

Creating a new Android project • Source files, Resource files, Manifest file • Compilation • Generated files • APK • Creating an Android Virtual Device (Android Emulator) • Running the app on the emulator

### **Using Command-line Tools**

Android Debug Bridge (ADB) • ADB server • Using the shell

### **Application Fundamentals**

Android Application • Application Components • Manifest File • Resources • Intents

### **Activities**

Extending the Activity class • Declaring activities in the Manifest • Activity Lifecycle

### **Views**

TextView • ImageView • Button • other views • ViewGroups • LinearLayout • RelativeLayout • other layouts • Best Practices

### **XML Layouts**

Manually editing layout XML • XML attributes • WYSIWYG editor

### **Debugging**

Logging • using DDMS • Debug perspective in Eclipse

### **Menus**

Options Menu • Responding to user action • Context Menu

### **Intents and Intent Filters**

### **Dialogs**

AlertDialog • ProgressDialog • Lists in Dialogs • Toast Notifications

**Threads****Services**

Declaring a service • Started Service • Bound Service • Service Lifecycle

**Graphics and Animations**

Drawables • Nine-patch • Canvas • Animations

**Data Storage**

Shared Preferences • Internal Storage • External Storage • SQLite

**Content Providers**

Accessing data from Content Providers • Creating a Content Provider

**Broadcast Receivers****Networking****Multimedia**

Camera

**Sensors**

Light Sensor

**Location Services*****Contact Details:***

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