



QUICKSTEP COMPUTER CENTER

National Accreditation Board of Education Training.
(NABET)- Quality council of India) An ISO 9001:2008

*******Android Training with Advanced Course Syllabus*******

Introduction to Java

- ✓ Keywords & Data Types – Arrays

OOPS and its Implementation

- ✓ Classes
- ✓ Objects
- ✓ Inheritance
- ✓ Polymorphism Abstraction
- ✓ Encapsulation
- ✓

Exception Handling

Collection Framework

- ✓ Collection
- ✓ Map
- ✓ Date & Calendar
- ✓ Enumerator
- ✓ Iterator

Applets

- ✓ Applet Basics – Event Handling in Applets – Displaying Image
- ✓ Playing Audio – Applet Interactions – sample Applets.

AWT

SWING

Mobile App Development using Android

Introduction to Android

- ✓ What is Android?
- ✓ Setting up a development environment
- ✓ Dalvik Virtual Machine & .apk file extension
- ✓ Basic Building blocks – Activities, Services, Broadcast Receivers Content providers
- ✓ UI Components- Views & notifications
- ✓ Components for communication – Intents & Intent Filters
- ✓ Android API levels(versions & version names)

Android Application Structure

AndroidManifest.xml

- ✓ Uses-permission & uses-sdk
- ✓ Activity/services/receiver declarations
- ✓ Resources & R.java
- ✓ Assets
- ✓ Values – Strings.xml
- ✓ Layouts & Drawable Resources
- ✓ Activities and Activity lifecycle
- ✓ First sample Application
- ✓ Deploying sample application on a real device
- ✓

Emulator-Android Virtual Device

- ✓ Launching emulator
- ✓ Editing emulator settings
- ✓ Emulator shortcuts
- ✓ Logcat usage
- ✓ Introduction to DDMS
- ✓ File explorer

Basic UI Design

- ✓ Form widgets
- ✓ Text Fields
- ✓ Layouts
- ✓ RelativeLayout,TableLayout,FrameLayout,LinearLayout
- ✓ Nested layout [dip,dp,sip,sp] versus px

Preferences

- ✓ SharedPreferences
- ✓ Preferences from xml

Menu

- ✓ Option menu
- ✓ Context menu
- ✓ Submenu
- ✓ Menu from xml
- ✓ Menu via code

Intents

- ✓ Explicit Intents
- ✓ Implicit intents
- ✓ Switching between activities for demonstrating communication between intents

UI Design

- ✓ Time and Date

- ✓ Images and media
- ✓ Composite
- ✓ Alert Dialog & Toast
- ✓ Popup

Tabs and Tab Activity

- ✓ Tab host
- ✓ Tab widget
- ✓ Tap Spec

Styles & Themes

- ✓ xml
- ✓ xml- declaring colors and drawables
- ✓ Drawable resources for shapes, gradients(selectors)
- ✓ Shapes drawables
- ✓ State drawables
- ✓ Transition drawables
- ✓ 9 Patch drawables
- ✓ Style attribute in layout file
- ✓ Applying themes via code and manifest file

Linkify

- Web URLs, Email address, text, map address phone numbers
- Match filters & Transform filters

Adapters and Widgets

Adapters

- Array Adapters
- Base Adapters
- ✓ Listview and List Activity
- ✓ Custom Listview
- ✓ Gridview using adapters
- ✓ Gallery using adapters

Notifications

- ✓ Broadcast Receivers
- ✓ Services and Notifications
- ✓ Toast
- ✓ Alarms
- ✓ Debugging android applications
- ✓ Intent and intent filters

- ✓ Status bar, dialog notifications

Custom Components

- ✓ Custom Toast
- ✓ Custom Dialogs
- ✓ Custom Tabs
- ✓ Custom animated popup panels
- ✓ Other components

Threads

- ✓ Threads running on UI thread(runOnUiThread)
- ✓ Worker thread
- ✓ Handlers & Runnable
- ✓ Asyn Task

SQLite Programming

- ✓ SQLite programming
- ✓ SQLiteOpenHelper
- ✓ SQLite Database
- ✓ Cursor

Content Providers

- ✓ Defining and using content providers
- ✓ Sharing database among two different applications using content providers
- ✓ Reading and updating contacts
- ✓ Reading bookmarks

Android Debug Bridge (ADB) Tool

- ✓ Multimedia in android
- ✓ Multimedia supported audio formats
- ✓ Media playback
- ✓ Supported video formats

Accessing Android Hardware

- ✓ Using the Media apis
- ✓ Using the camera
- ✓ Using the accelerometer and compass
- ✓

Animations

- ✓ Programmatically creating animations
- ✓ Introducing tweened animations

Graphics And Animations

- ✓ Drawing graphics in android
- ✓ Drawing with xml
- ✓ Canvas drawing best practice

Networking

- ✓ Overview of networking
- ✓ Checking the network status
- ✓ Communication with server socket
- ✓ Working with HTTP
- ✓ Web services

Sensors

- ✓ How sensors work
- ✓ Listening to sensor reading Best Practices for
- ✓ Performance

WIFI

- ✓ Monitoring and managing internet connectivity
- ✓ Managing active connections
- ✓ Managing Wi-Fi

Telephony

- ✓ Making Calls
- ✓ Monitoring Data connectivity and Connectivity
- ✓ Accessing Phone properties and status
- ✓ Controlling the phone

Camera

- ✓ Taking picturing Rendering preview

Bluetooth

- ✓ Controlling local blue tooth device
- ✓ Discovering and bonding with Bluetooth devices
- ✓ Managing blue tooth connections
- ✓ Communicating with Bluetooth

Services

- ✓ Update the Manifest File

- ✓ Simplifying StatusActivity
- ✓ UpdaterService
- ✓ Creating the UpdaterService with Java Class
- ✓ Update the Manifest File
- ✓ Add Menu Items
- ✓ Update the Options Menu Handling
- ✓ Looping in the Service
- ✓ Pulling Data from Twitter
- ✓ Testing the Service

GPS, Location Based Services

- ✓ Simulating your location within the emulator
- ✓ Using LocationManager and Location Provider
- ✓ Working with maps
- ✓ Converting places and addresses with Geocoder

Advanced

- ✓ Live Folders
- ✓ Using sdcards-Reading and Writing
- ✓ XML Parsing
- ✓ JSON Parsing Including external libraries in our application
- ✓ Maps via intent and MapActivity
- ✓ Accessing Phones services (call,sms,mms)
- ✓ Action bar tabs and custom views on Action bars
- ✓ Introduction to fragments

Work with your Android Phone

- ✓ Deployment
- ✓ Get Your Apps on Phone Get Connected with Android Market
- ✓ App Transfer Among Hands Set