STUCORNER Development | Training | Consultancy

An ISO 9001:2008 Company





Android Training

STUCORNER is one of the best Mobile App develop training center. We provide all things at real time . It is a software package that has operating system, middleware and key applications. For Java based Android applications Software Development Kit (SDK) provides tools and APIs. Android platform runs multiple applications at one time.

For e.g. Android user can receive notification, listen music and use GPS. Android applications have a vast market. Its applications are used by many prominent mobile phone manufacturing companies.

It provides easier application maintenance and market exposure to developer. Android is a versatile application which is flexible with hardware and carrier. Besides this, Android APIs helps a developer in developing standard apps. One who has work experience or good hands on Java can easily learn Android development. Usually the candidates with computer science and related engineering background and MCA & MSc can learn this course but anyone with good command over java can take Android training. STUCORNER's Android course provides you a well-designed training program according to IT job market demand. Enhanced and frequent exposure to labs and experienced faculties will give a sharp edge in Android development. Live project development, regular revision and tips for coding are a part of course.

Introduction to Android

- Introduction to Android
- Brief history of Android
- What is Android?
- Why is Android important?
- What benefits does Android have?
- What is OHA?
- Why to choose Android?

- Software architecture of Android
- Advantages of Android
- Android features
- Android market
- Comparing Android with other platform
- Terms and acronyms



Installation and Configuration of Android

- Details about the software requirement
- Download and installation process of eclipse
- Download and installation process of JDK
- Installation of ADT plugin for eclipse
- Download and installation process of Android SDK
- Configuration of ADT plug-in for eclipse
- How to select Android version?
- Step to create new project?
- Running your application Creation of new AVD

Getting Started

- How to select Android version?
- Step to create new project
- Running Your Application
- Creation of New AVD
- Creating run configuration
- Creating your first Android activity
- List of basic sample programs

Introductions to Application Components Activities

- Services
- Broadcast receivers
- Content providers
- Intents
- Notifications
- Activating and shutting down components
- Brief idea about manifest file
- Brief idea about activities and Task

Android Component Life Cycle

- Activity Life Cycle with sample program
- Service Life Cycle with sample program

Android Layouts

- What are views, Layouts and there classification?
- How Android Draws views and Layout?
- Classification
- Table Layout In detail with Example
- Tab Layout In detail with Example
- Frame Layout In detail with Example
- Absolute Layout In detail with Example
- Linear Layout in detail with Example

Android Views

- Grid View In detail With Example
- Map View In detail with Example
- Cont. Sub Topical Views
- Web View In detail with Example
- Spinner In detail with Example
- Gallery In detail with Example
- Google Map View In detail with Example
- Introduction to creating activity user with views
- Different ways of creating views Using xml

Styles and Themes

- Providing resources
- Different resource file location
- Providing alternative resources
- Android finds the best matching resource
- Accessing resources
- Accessing platform resources
- Handling runtime changes
- Introduction to JQuery
- JQuery work in Android



What are Fragments?

- Multi-pane & Single pane
- Fragment Life Cycle
- Addition of Fragments
- Fragments Working without UI

Introduction to Menus

- How to create menus?
- Types of Android Application Menus
- Option Menu
- Expanded In detail with Example
- Context Menu ln detail with example
- Sub Menu-In detail with example

Introduction to Drawers

- Navigation Drawer
- Simple Side Drawer
- Tab Drawer
- Extra Drawer

Handling User Interaction Events

- Handling user events
- Different types of event listener
- OnClickO
- OnLongClickO
- OnFocusChangeO
- OnKeyO
- OnTouchO
- OnCreateContextMenuO
- Different types of event handler
- OnKeyDown (int, KeyEvent)
- OnKeyUp (int, KeyEvent)
- OnTrackballEvent (MotionEvent)
- OnTouchEvent (MotionEvent)
- OnFocusChanged (boolean,int,Rect)

Creating Dialogs

- Introduction to dialogs
- Showing and dismissing of dialog boxes
- Alert dialog In detail with example
- Progress dialog In detail with example
- Threading and handler
- Creating running applications-Events
- Creating running applications-Dialogs

Notifications

- Notifying Users
- Status bar Notification
- Toast Notification
- Dialog Notification
- Supported video formats
- Controlling playback
- Managing media playback output
- Multimedia supported audio formats
- Recording audio and video
- Using Intents to Record Video Configuring and Controlling Video Recording
- Previewing Video Recording
- Reading and Writing JPEG EXIF Image Details
- Adding new media to media storage
- Using the Media Scanner
- Inserting Media into the Media Store
- Raw video manipulation
- Recording Sound with Audio Record
- Playing Sound with Audio Track
- Speech recognition
- Creating and Running and Testing





Intents, Broadcast Receivers, Adapters

And Internet

- Different types of intent?
- Launching sub-activities
- What is intent filter
- Intent objects---In detail with example
- Using intents to take pictures
- Handling sub activity results

Data Storage

- Android techniques for data storage
- Creating and saving shared preferences
- Retrieving shared preferences
- Storing in files
- Loading from files.
- Storing in databases.

Working with SQLite

- Introducing SQLite database.
- Working with Android databases.
- Using SQLite OpenHelper.
- Cursors and content values.
- Opening and closing Database

Working in Background

- Introducing services
- Creating and controlling services
- Registering a service in the manifest
- Starting, controlling, and interacting with a service

Using the Camera, Taking Pictures and the Media API

- Controlling the camera and taking pictures
- Playing audio and video
- Introducing the media player
- Preparing audio for playback
- Packaging audio as an application resource
- Initializing audio content for playback

- Preparing for video playback
- Playing video using the video view
- Setting up a surface for video playback Initializing video content for playback

Maps, GEO coding and Location Based Services

- Using Location Based Services
- Working with the location manager
- Configuring the Emulator to Test Location Based Services

About ADB (Android Debug Bridge)

- DDMS: Dalvik debug monitor Service
- Trace View

Data Security and Permission

- Security Architecture
- User Ids and File Access
- Using Permissions

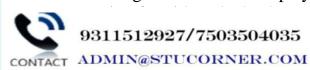
Declaring and Enforcing Permissions

Drawing 2D and 3D Graphics

- Rolling your own Widgets
- Drawables
- Bitmaps Paint

Using Bluetooth and Managing and Monitoring Wi-Fi

- Accessing the Local Bluetooth Device
- Adapter
- Managing Bluetooth Properties and State
- Managing Device Discoverability
- Discovering Remote Devices
- Monitoring Active Connection Details
- Scanning for Hotspots





- Managing Wi-Fi Configurations
- Creating Wi-Fi Network Configurations
- Device Vibration
- Controlling device vibration

Introduction SMS and MMS

- Using SMS and MMS in Your Application
- Sending SMS and MMS from your Application
- Using Intents and the Native Client
- Sending SMS Messages Manually
- Tracking and Conforming SMS Message
- Delivery
- Conforming to the Maximum SMS
- Message Size Sending DAT Messages

P2P Communication

- Introduction Android Instant Messaging
- Using the GTalk Service
- Binding the GTalk Service
- Making a GTalk Connection and Starting an IM Session
- Handling Subscription Rousts
- Removing and Blocking Contacts
- Managing the User's Presence
- Managing Chat Session
- Sending Instant Text Messages
- Receiving Instant Text Messages
- Chat Rooms and Group Chats

Content Providers

- What is content provider
- How to access build in Content provider
- Retrieving build-in Content provider data

Web Services with Architecture

- What are WebServices
- Web service Architecture
- REST & SOAP
- Parsing Techniques JSON, XML
- Consuming WebServices
- CRUD Operations over Server

Android Telephony

- Launching the Dialler to Initiate Phone
- Calls Replacing the Native dialler
- Accessing phone and Network Properties & Status
- Reading Phone Device Details
- Reading Data Connection and Transfer State
- Reading Network Details

Google Cloud Messaging

- What is GCM?
- GCM Architecture
- GCM Services
- Instant Messaging
- TTL (Time to Live)
- Group Messaging
- Server Communication

Sensor Device

- Using sensors and the sensor manager
- Introducing Sensors
- Supported Android Sensors
- Finding Sensors
- Using Sensors
- Interpreting the sensor values
- Using the compass, accelerometer and orientation sensors
- Introducing Accelerometers
- Detecting Acceleration Changes
- Creating a G-Force meter



Introduction to NDK

- What is NDK
- Need of NDK
- Memory Management
- Machine Architecture

Introduction to Gaming

- Sensors with Canvas & Bitmap
- Introduction to Open GLes
- Making figures
- Provide figure Transformation

Further Advanced Topics

- Binding Activities to services
- Prioritizing Background services

Binding data with service

