ANDROID Online Training Course Content

Introducing the Android Platform

Defining device characteristics

Exploring the Android Market

Establishing the development environment

ADT plugin

Java

SDK

Emulator

Analyzing components of the architecture

Leveraging Application Fundamentals

Building mobile applications

Exposing the lifecycle events

Creating activities to process user input

Implementing views to build the User Interface (UI)

Packaging applications for deployment

Developing unit tests

Supporting asynchronous behavior

Performing background tasks with services

Communicating with Intents

Creating User Interfaces

Selecting visual components

Assessing available widgets

Building the layout

Connecting a view to an activity

Positioning form elements

Working with resource declarations

Declaring component definitions and layouts

Internationalizing applications

Handling multiple screen resolutions

Exploiting dynamic resource generation

Processing User Input

Communicating with the user

Creating and displaying Toast

Generating status bar notifications

Collecting confirmation with dialogs

Interacting with the UI

Responding to user input events

Launching activities with intents

Writing Java event handlers

Generating context and option menus

 Integrating with the Android system

Persisting data in response to notifications

Persisting Application Data

Selecting storage options

Contrasting internal and external storage locations

Saving application configuration with Shared Preferences

Manipulating the SQLite database

Executing queries to locate information

Specifying column aliases with projections

Retrieving data with cursors

Consuming and creating content providers

Accessing shared data resources

Addressing content providers with URIs

Binding to UI components

Maintaining System Responsiveness

Avoiding Application Not Responding (ANR) errors

Unloading the UI thread

Designing for asynchronous execution

Building background services

Launching IntentServices

Declaring services in the manifest

Exchanging Data over the Internet

Interacting with server-side applications

Synchronizing Android devices with servers

HTTP requests

Socket communications

Developing clients for Web services

Connecting to RESTful services

Creating and parsing JSON

Enhancing the User Experience

Working with tablets

Developing for the Honeycomb platform

Manipulating objects with drag and drop

Optimizing applications for high screen resolution

Combining fragments into a multipane UI

Leveraging geolocation and mapping capabilities

Plotting positions on Google maps

Establishing location through GPS, Cell-ID and WiFi

Publishing Applications

Specifying required permissions

Versioning, packaging and signing software

Uploading to the Android Market