

Getting Started with Android App Development

- Fundamental Components of Android Phones and Tablets
- Installing and Configuring Eclipse to Create Apps
- Testing Apps Using the Simulator
- Understanding Service Oriented Architecture (SOA)

Creating the User Interface (UI)

- Core Components of Android User Interfaces (UIs)
- Using Android's XML-Based Layout System to Define UIs
- Common Widgets
 - Buttons
 - Labels
 - Checkboxes
- UI Layout Best Practices

Mastering User Interface Layouts

- Pros And Cons of Different Layout Models
- Using Containers to Control the Location of Widgets
- Defining a Widget's Position Relative to Other Widgets
- Overlapping Widgets
- Using Table-Based Layouts
- Enabling Scrolling

Accepting User Input

- The Android Input Method Framework
- Getting Input from Attached and/or Internal Keyboards
- Processing Choices with Selection Lists
- Adding Icons to Selection Lists
- Using Sliders and Checkboxes
- Using Date and Time Pickers
- Responding to Taps And Swipes

Menus, ActionBars and Popups

- Adding Traditional Application Menus to Apps
- Displaying Context Menus When Users Tap and Hold
- Using Actionbars (Toolbars For Android Apps)
- Displaying Popup Messages

Advanced User Interfaces and the WebKit Browser

- Embedding HTML Content in Apps with WebKit
- Displaying Analog and Digital Clocks
- Using Tabs to Display Multiple UIs
- Applying Standard Styles and Fonts
- Creating Reusable UI Components with Fragments

Working with App Activities and Intent Filters

- The Application Activity Lifecycle
- Saving Data when Apps are Paused Or Killed
- Using Threads to Run Background Services
- Launching Sub-Activities
- Handling Phone Calls
- Optimizing Device Resources

Data Management

- Embedding SQLite Databases in Apps
- Permanently Storing Data in Local Databases
- Retrieving Database Data when Apps Start
- Best Practices for Data Management

Saving Files and Images

- Storing Images, Strings and Arrays
- Playing Audio and Video Files
- Best Practices for Saving Files
- Creating and Storing Wallpapers

Handling Rotation and Different Screen Sizes

- Different Strategies for Handling Screen Rotations
- Controlling UI Changes when Screens Rotate
- Issues Related to Tablets and Larger Screens
- Creating UIs that are Compatible with All Screen Sizes (Right-Sizing)

Deploying to Android Devices

- Checking for and Requiring Phone or Tablet Features
- Deploying to the Android Store
- Deploying Directly to Devices

Using Java Libraries and Web Services

- Using Pre-Compiled Java Libraries
- Connecting to Web Services (such as Google Maps)
- Downloading Internet Content

Working with Built-in Android Features

- Accessing and Using MapView
- Getting the Location of the Phone Or Tablet
- Working with the Camera
- Working with Permissions and the Security Framework

Alternative Development Options and Other Resources

- Building Apps with PhoneGap
- Using Flex, Air and Other Development Options
- Locating Resources and Help