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**Microsoft** **AUTODESK**  
Technology Associate Certified User



## Android and Advanced Android Apps Development

### About this course

Ardent's Android Training Course will give you all the knowledge needed to work on the Android platform. This android course will enable you to develop android app and register on google play store to show the world your creativity. Some important topics covered in this training are Android architecture, its components and the various resources, the process of Application Lifecycle, the Layout Manager, and the different styles, menus, intents, broadcast notifications, the SQLite database, SQLiteOpenHelper and Google Play Store registration.

### Get hands-on experience

- Learn about the Android basic, its Architecture and the App Market.
- The various components of Android and Application Life cycle Resources
- Create Menus and Layouts in Android
- Use the SQLite Database for creation of Android Applications
- Work on animation, content creation, data storage, Maps API
- Work with Android Studio, DDMS, Listeners and other tools
- Learn to design interactive apps with animation.
- Working with various Widgets.
- Publish the app on the Google Play Store

### Pre-requisites

Anybody interested in Android App Development can take this Training. Though basic knowledge of Java will be a plus point.

### Get Certified

Upon completion of the course, attendees are encouraged to continue their study and register for the ARDENT and Microsoft/HPE Global Certification. Certification is a great differentiator; it helps to establish you a leader in the field, providing employers and customers with tangible evidence of your skills and expertise.

### Course Contents

#### Module 1: Introduction to Mobile Apps

- Why we Need Mobile Apps
- Different Kinds of Mobile Apps

- Briefly about Android

## **Module 2: Introduction Android**

- History Behind Android Development
- What is Android?
- Pre-requisites to learn Android
- Brief Discussion on Java Programming

## **Module 3: Android Architecture**

- Overview of Android Stack
- Android Features
- Introduction to OS layers

## **Module 4: Installing Android Machine**

- Configuring Android Stack
- Creating Eclipse Environment
- Integrating Android with Eclipse IDE
- Exploring Eclipse IDE

## **Module 5: Creating First Android Application**

- Creating Android Project
- Show How To get DDMS
- Setting up environment
- AVD Creation
- Executing Project on Android Screen

## **Module 6: Android Components**

- Activities
- Services
- Content Providers

## **Module 7: Hello World App**

- Creating your first project
- The manifest file
- Layout resource
- Running your app on Emulator

## **Module 8: Building UI with Activities**

- Activities
- Views, layouts and Common UI components
- Creating UI through code and XML
- Activity lifecycle
- V. Intents

## **Module 9: Notifications**

- Toast, Custom Toast
- Dialogs
- Status bar Notifications

## **Module 10: Styles and Themes**

- Creating and applying simple Style
- Inheriting built-in Style and User defined style
- Using Styles as themes

## **Module 11: Resources and Assets**

- Android Resource
- Using resources in XML and code
- Localization
- Handling Runtime configuration changes

## **Module 12: Intent, Intent Filters and Broadcast Receivers**

- Role of filters
- Intent-matching rules
- Filters in your manifest

## **Module 13: Data Storage**

- Shared Preferences
- Android File System
- Internal storage
- SQLite
  - Introducing SQLite
  - SQLiteOpenHelper and creating a database
  - Opening and closing database
  - Working with cursors Inserts, updates, and deletes

## **Module 14: Services**

- Overview of services in Android
- Implementing a Service
- Service lifecycle

## **Module 15: Multimedia in Android**

- Multimedia Supported audio formats
- Simple media playback
- Supported video formats
- Simple video playback

## **Module 16: Content Providers**

- Content Provider Basics
- Creating a Content Provider
- Calendar and Contacts Provider
- Storage Access Framework(SAF)
- Create a Custom Document Provider

## **Module 17: Connectivity and Cloud**

- Introduction to Wireless Connectivity using Wireless and Bluetooth
- Connecting to the Network
- Transferring Data using Sync Adapters
- Introduction to Volley
- Firebase Cloud Messaging

## **Module 18: Location Based Services**

- The location object
- Get the current location
- Get the updated location
- Location quality of service
- Displaying a location address
- Example
- Install the google play services sdk
- Create android application

## **Module 19: Sending Email**

- Intent Object - Action to send Email
- Intent Object - Data/Type to send Email
- Intent Object - Extra to send Email
- Example

## **Module 19: Sending SMS**

- Using smsmanager to send SMS
- Using Built-in Intent to send SMS
- Intent Object - Action to send SMS
- Intent Object - Data/Type to send SMS
- Intent Object - Extra to send SMS
- Example

## **Module 20: Phone Calls**

- Intent Object - Action to make Phone Call
- Intent Object - Data/Type to make Phone Call

### **Module 21: Android Bluetooth**

- Example

### **Module 22: Android Camera**

- Using existing android camera application in our application
- Example
- Directly using Camera API provided by android in our application
- Example

### **Module 23: Android Google Maps**

### **Project Implementation**

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For feedback and suggestion reach out at [feedback@ardentcollaborations.com](mailto:feedback@ardentcollaborations.com) or contact (033 4007 3507) from **4pm. – 6pm.**

**We are happy to help you always.**