



AR+Android

Programming & development

Course Curriculum

ANDROID APPLICATION DEVELOPMENT

The course contents are as follows:

Course Details

Day-1:(Session-1, 3hrs before lunch break)

- **What Is Android?**
 - Brief Introduction of Android Device Programming for Android
 - Open Handset Alliance and Features
- **Installing the Android SDK**
 - Brief Introduction of Android Device Programming for Android
 - Installing the Android
 - Configuring the Android Plug-in for Eclipse
- **Android Stack(Architecture)**
 - Linux Kernel
 - Native Libraries
 - Dalvik Virtual Machine App Framework
- **Hello World Application**
 - Creating the first Android Application
 - Running the application on Android emulator
 - Hello World App on Android Emulator

Day-1:(Session-2, 5hrs after lunch break)

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- **Main Building Blocks**
 - Default Packages
 - Activities
 - Activity Life Cycle
 - Intents
 - Content Providers
 - Broadcast Receiver
 - **Intent Filters in Android**
 - Role of filters
 - Intent matching Rules
 - Filters in your Manifest
 - **Working on and Preparing Android User Interface**
 - XML Layout Files
 - Views and Layouts
 - Setting Content View
 - Basic UI Components(Buttons,EditText,ListView,AutoCompleteTextView,Spinner)
 - Performing and Handling user events

Tea Break

- **Android Apps Building**
 - Declaring Variables
 - Using Text View for values to be printed
 - Using Conditions
- **Designing an Application**
 - Implementation of Widgets
 - Using Radio Buttons
 - Use of different types of Android Themes

Day-2:(Session-1, 4hrs before lunch break)

- **Android Layout Understanding&Menu**
 - Linear Layout
 - Relative Layout
 - Building PopUp Menu
- **Android: Toast Creation**
 - Creating Standard Toast
 - Setting the position of a Toast on the Screen

Tea Break

- **Sensors in Android**
 - How sensors work
 - Types of Sensors
 - Listening to sensor reading
 - Working with Acceleration Sensor
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- Reading X,Y,Z Coordinates
 - **Work With Your Android Phone**
 - Get your Apps on Phone.
 - Get Connected with Phones
 - App Transfer Among Hand Sets

Day-2:(Session-2, 4hrs after lunch break)

- **Broadcast Receiver**
 - Life Cycle of Broadcast Receiver
 - Some System Broadcast
 - Pending Intent
 - Creating messaging application
- **Android Graphics and Multimedia**
 - Playing Audio
 - Playing video
- **Media Player Application using Content Provider**
 - Creating list view to display song list
 - Transfer songs on AVD
 - Play songs on AVD or on your Device

Android Advanced Topics (Only Overview)

- 1) Android Async Task
- 2) Android Webservices
- 3) Android Online Apps
- 4) Targetting mutiple Resolutions

Augmented Reality with Vuforia SDK in Android Studio

- Getting Started with Vuforia in Android Studio.
 - Vuforia in Android Studio
 - About Vuforia
 - Installing Vuforia
 - Create a new Android Studio project
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- Vuforia Game Objects
 - Activate Vuforia in your project
 - Accessing Vuforia features in Android Studio
 - Add Targets to your scene
 - Adding digital assets
 - Playing the scene
 - Building and running your app

