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SmartBit
Computer's


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Mastering In Advance Android Programming

Introduction

Android has been developed by **Google Inc.** It has become the most used and powerful tool in Mobile Systems today. This course is focused to help students understand the potential of Android and have a good working knowledge of the tool. By the end of the course, students should easily be able to develop applications using Android. The target of this course is to harness the immense **job potential** in the Android market today.

Objective

- ▣ To be able develop applications on Android platform
- ▣ To find a job in the huge job market available in Android technology

Eligibility

1. Graduates / Post Graduates from Computer Science background

Course Overview

The Course consists of the following modules which include theory and practical sessions

Core Java

Basic OOPS Concepts

Introduction to Java

- ▣ Language Fundamentals

Basic of Java Programming

- ▣ Variable and Data Types
- ▣ Classes

Classes, Objects, Interface

Using Java Beans

Java Packages

- ▣ Java Lang package
- ▣ Java i/o package
- ▣ Java UTIL packages
- ▣ Java Math package
- ▣ Java AWT package
- ▣ Javax Swing package

GUI in Java-AWT and Swings

Introduction to JDBC

Android

History of Android

- ▣ Evolution of Android
- ▣ Where Android scores over others

Android Architecture

- ▣ Overview
- ▣ Linux kernel
- ▣ Native libraries
- ▣ Dalvik
- ▣ App framework

SDK Overview

- ▣ Platforms
- ▣ Tools
- ▣ Versions

Emulator

Your First Program

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

SDK Building Blocks

- ▣ Activities
- ▣ Activity lifecycle
- ▣ Intents
- ▣ Services
- ▣ Content Providers

SQL Database

- ▣ Introducing SQLite
- ▣ Working with cursors Inserts, updates, and deletes

Basic Content Providers

- ▣ Content provider MIME types
- ▣ Searching for content
- ▣ Adding, changing, and removing content
- ▣ Working with content files

Advanced Android

Custom Content Providers

- ▣ Why Content Providers
- ▣ Where the content comes from
- ▣ Implementing the API Supporting content files

Location Based Services and Google Maps

- ▣ Using Location Based Services
- ▣ Working with Google Maps

Services

- ▣ Overview of services in Android
- ▣ Implementing a Service
- ▣ Service lifecycle
- ▣ Inter Process Communication (AIDL Services)

Broadcast Receivers

- ▣ What are Broadcast Receivers
- ▣ Implementing broadcast receiver
- ▣ System broadcasts and how to use them

Intent Filters

- ▣ Role of filters
- ▣ Intent-matching rules
- ▣ Filters in your manifest
- ▣ Filters in dynamic Broadcast Receivers

Sensors

- ▣ How Sensors work
- ▣ Lig to Sensor readings
- ▣ Best practices for performance

- ☐ Access modifiers
- ☐ Objects
- ☐ Methods and Classes
- ☐ Operators
- ☐ Loops
- ☐ IF-Then-Else Constructs

Writing the First Java Programme

Using OOPS concepts

- ☐ Using OOPS in Java Programmes
- ☐ Encapsulation
- ☐ Inheritance
- ☐ Polymorphism
- ☐ Abstraction
- ☐ Constructors / Destructors
- ☐ Overloading / Overriding
- ☐ Arrays and Collections
- ☐ Array declaration
- ☐ Casting and wrapper classes
- ☐ String, String Buffer

Exception Handling Threads

- ☐ Multi-Threading
- ☐ Synchronization

- ☐ Broadcast Receivers

Android User Interface

- ☐ Specification
- ☐ Dip's and Sip's
- ☐ Views and layouts
- ☐ Common UI components
- ☐ Handling user events

Android system Overview

- ☐ File System
- ☐ Preferences
- ☐ Notifications
- ☐ Security model

Advanced UI

- ☐ Adapters
- ☐ Complex UI components
- ☐ Menus and Dialogs
- ☐ Graphics & animations

Multimedia in Android

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

WiFi

- ☐ Monitoring and managing Internet connectivity
- ☐ Managing active connections
- ☐ Managing WiFi

Telephony

- ☐ Making calls
- ☐ Monitoring data connectivity and activity
- ☐ Accessing phone properties and status
- ☐ Controlling the phone

Camera

- ☐ Taking pictures
- ☐ Rendering previews

Bluetooth

- ☐ Controlling local Bluetooth device
- ☐ Discovering and bonding with Bluetooth devices
- ☐ Managing Bluetooth connections
- ☐ Communicating with Bluetooth

XML Parsing

- ☐ Consuming Web Services
- ☐ HTTP Request Response Model
- ☐ XML Parsing

Android Industrial Project

- ☐ Complete Industrial project on Android

For More Details Please Feel Free To Contact Rahul on 8888228222.