Peers Technologies Pvt. Ltd.

Course Brochure

ANDROID

Overview
- This course introduces mobile application development for the Android platform. Participants will learn to create and deploy Android applications, with particular emphasis on software engineering topics including software architecture, software process, usability and deployment.

Pre-requisites
- Basic Java programming is essential

Applications

COURSE CONTENTS

Introduction

- ❖ Mobile Application Development
- ❖ Android Overview
- ❖ History of Android
- ❖ Android Versions & Levels
- ❖ Why Android is important?
- ❖ Android Features

Android Architecture

- ❖ Software Stack
- ❖ Linux Kernel
- ❖ Native Libraries
- ❖ Android Runtime
- ❖ Dalvik Virtual Machine
- ❖ Application Framework
- ❖ Core Building Blocks

Android Installation

- ❖ Java & JDK
- ❖ Eclipse IDE Helios & Indigo
- ❖ Android SDK
- ❖ Eclipse ADT Plugin
- ❖ Creating Android Virtual Device
- ❖ Different type of Skins
- ❖ Developing an Android Application
- ❖ R.java
- ❖ Android Manifest.xml
- ❖ Hide Title Bar

Android Application

- ❖ Activity Lifecycle
- ❖ Intents
- ❖ Linking Activities using Intents
- ❖ Passing Data using an Intent
- ❖ Returning data from Activity
- ❖ Calling Built-in Applications using Intent
- ❖ Implicit Intents

- ❖ Intent Filters
- ❖ Resources in an Android Application
- ❖ Grouping, accessing of Resources
- ❖ Permissions
- ❖ Debugging in Android Applications
- ❖ Dalvik Debug Monitor server – DDMS
- ❖ How DDMS interacts with a Debugger
- ❖ Using DDMS
- ❖ LogCat
- ❖ Hierarchy Viewer

Basic Android User Interface

- ❖ View Hierarchy
- ❖ How Android draws Views?
- ❖ Common Layout Objects
- ❖ FrameLayout
- ❖ LinearLayout
- ❖ TableLayout
- ❖ RelativeLayout
- ❖ AbsoluteLayout
- ❖ GridLayout
- ❖ Scroll View
- ❖ Text Controls
- ❖ Button Controls
- ❖ Other Common UI Components
- ❖ Handling User interaction Events

Advanced User Interface

- ❖ List Controls
- ❖ Custom List Controls
- ❖ Picker Controls
- ❖ Selection Components
- ❖ Spinner
- ❖ Adapters
- ❖ Complex UI Components
- ❖ Progress Bar
- ❖ Building UI for Performance
- ❖ Supporting Multiple Screens
- ❖ Styles & Themes
- ❖ Custom Themes

COURSE CONTENTS

Animations & Graphics

- ❖ Frame by Frame Animations
- ❖ Tween Animations
- ❖ Programmatically creating Animations
- ❖ Drawing Graphics in Android

Menus & Dialogs

- ❖ Creating Menus
- ❖ Options Menu
- ❖ Context Menu
- ❖ Popup Menus
- ❖ Sub Menus
- ❖ Loading menus through XML file
- ❖ Alert Dialog
- ❖ Progress Dialog
- ❖ Date Picker Dialog
- ❖ Time Picker Dialog

Notifications & Toast

Multimedia in Android

- ❖ Audio Playback
- ❖ Video Playback
- ❖ Recording Media

Preferences & Data Storage

- ❖ Shared Preferences
- ❖ Internal Storage
- ❖ Ecternal Storage
- ❖ Database Storage

SQL ITE Databases

- ❖ Introducing SQLite
- ❖ SQLiteOpenHelper
- ❖ Creating a Database
- ❖ Opening and Closing a Database
- ❖ Creating Tables
- ❖ CRUD Operations
- ❖ Working with Cursors
- ❖ Working with SQLite Database Browser

Fragments

Networking

SMS & Email

Web Services

Android Services

Location based Service & GPS

Broadcast Receivers

Sensors

WiFi

Telephony

Bluetooth

Content Providers

Publishing Android Applications

Application Development in Google play Store