

Android System Development Workshop



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Enabling “Embedded Learning in INDIA”



Workshop

When people want to work parallel with the growing technology, learning the new technology is primary step. To help all, EasyARM came-up with two days workshop which is focused to give the overview of Android and explore its building blocks. Primary elements to start working on Android with a hands-on experience. The targeted audience should have prior knowledge in Linux Basics and good C, C++ or Java Programming skills.

Fee & Duration: [Bangalore Only]

Rs. 3000.00 , 2 Days [10:00 AM to 4:00 PM]

Registration:

Drop a mail to info@easyarm.com with your contact details.

For any query please call on 080-41307589 || 9972039671



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Day-1

Android Anatomy

1. Introduction & history of Android
2. Native Libraries
3. Android Runtime
4. Application Framework

Android Kernel

1. Introduction
2. Binder
3. Power
4. Ashmem
5. Low Memory Killer
6. Logger, ADB
7. Miscellaneous Patches

Getting Started

1. Setting up development Machine
2. Packages required on development machine
3. Hands On (Demonstration)

Repo & Git - Overview

1. Manifest file
2. Working with repo and git
3. How to Download Build & Compiling

Android Emulator on Windows and Linux Host

1. Introduction
2. Goldfish & QEMU
3. Working with emulator
4. Connecting to emulator over ADB
5. Hands on with Eclipse SDK emulator (Demonstration)

Android Runtime

1. Introduction to Dalvik/Zygote
2. How Android framework starts
3. app_runtime -> zygote
4. System server, Android services
5. Instances of Dalvik
6. Hardware abstraction layer

Day-2

Android Toolchain

1. Introduction
2. Features of Android Toolchain
3. Dependency of libc with android build

Android Native Layer Development

- Overview of Android C/C++ Libraries
- Modifying C/C++ Libraries
- Porting New C/C++ Libraries
- Cross Compiling a C Program and executing on Target.

Preparing and Porting Android for ARM Board

- Download Android kernel
- Compile Android kernel
- Prepare Android filesystems
- Porting applications on ARM Board

Registration Process

Payment Mode: [Complete Payment should done be in advance]

Venue Details:

9/1, 1st Floor,3rd Main, 8th Block, Opp: Police station, Kormangala, Banalore-560095.

Note: Candidate should carry Laptop with minimum of 1GB Ram and 10GB free space.

FAQs

1. What is Android ?

Android is a mobile Operating System.

2. In which area of Android Can I work ?

Android UI Programming: If you are a java UI programmer.

Android Java Framework: For Java programmers.

Android JNI Layer: For Java , C & C++ Programmers.

Android Native Development: C , C++ & Linux Programmers.

Android Kernel, BSP & Device Drivers: C, C++, Linux System & Device Driver Programmers.

3. Which area is covered in this workshop ?

An overview of all layers have been covered and major part concentrated on the lower layer which is C, C++ & Linux.

4. What should I know to attend this workshop ?

This is a introductory workshop for Android which covers all parts of Android, so you should fit in any one Layer on question 2.

5. What all things I know after this workshop ?

Big picture of Android.

Layers & Modules of Android Framework.

Setup the work environment for Android.

Executing Sample Java Applications on real device.

Android Runtime flow.

Writing & Executing Native C/ C++ Programs on real device.

Host and Device communication using Android ADB.

Compiling Android for a Hardware and Bring-up different targets.

6. What next to this workshop ?

You are ready to experiment on different layers of Android as per your domain.

EasyARM conducts advance workshops on Android.

1. " Android Application Development " (Java Programmers)

2. " Android Advance Programming" (Java Programmers)

3. " Android Porting, BSP, Device Drivers & Native Framework Development" (C \ C++ & Linux programmers)