A BRIEF REVIEW ON ANDROID APP DEVELOPMENT

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ABSTRACT: In this modern era, the android application is developed day by day. Android is one of the secure operating system. This development is possible mainly with the open source in nature. In this we have to learn android architecture and tools required to develop android application development i.e. Software Development Kit (SDK), Accessory Development Kit (ADK). The paper briefs the information of android app development.
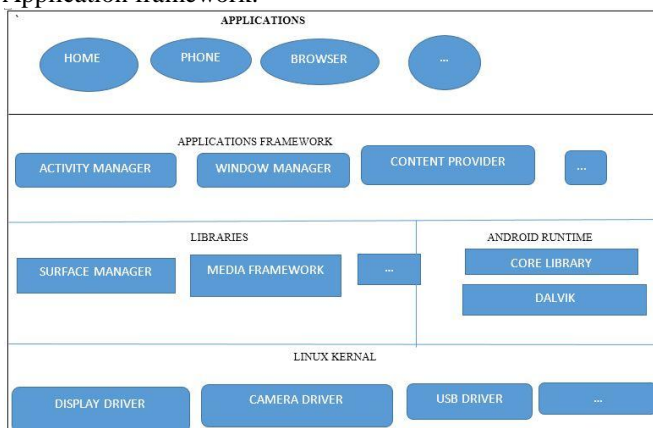*Keywords: Android, Weibe client, Video player, Audio player, Android SDK, Android Operating System, Android Architecture.*

I. INTRODUCTION

Android is open source operating system developed by google. It is used to develop applications for android devices. Nowadays many of the applications are available in google play store and the rapid increase in technology, the developers create many applications for banking purpose, video chats, etc. Android application development is based on the java language and developer is used to write the code in java language and these code can be control by Google-enabled java libraries. Because of open source development platform, the developer can create innovative and very rich applications. Here we studied the android system architecture. Android System is a Linux based system. Android Architecture is consisting of four layers.

- Linux Kernel.
- Libraries and Android runtime.
- Applications.

Application framework.

Applications: Android Applications are developed in java android application is a set of core applications I including SMS, Program, Map, Browser, Contact & Others.

Application framework: Application framework is easier to reuse of its components and all the other app can access and use this component.

Libraries & Android runtime: The library is consisted of two types Android runtime & Android library. android runtime is divided into Java core library & Dalvik virtual machine. Android system library important link between application framework, Linux kernel and it is developed in C or C++ language. These libraries are utilized by the different components in the android system.

Linux kernel: The kernel system provided by Android inner nuclear layer is based on Linux 2.6 kernel, Development Tools Provided by Android

Software Development Kit (SDK): It is mainly used for software application. For software package and hardware platform of operating system (3). SDK provides tools like application programming interfaces (APIs) for developing application that can be interfaced to any programming language (4). SDK provides sophisticated hardware and these tools for debugging and utilities that work in an Integrated Development Environment (IDE).

Accessory Development Kit (ADK):
The Android accessory development kit gives references, source code and hardware specifications for implementation of hardware. There are different types of hardware accessories i.e. USB connection, Bluetooth, etc. ADK it supports the Android Open Accessory (AOA) protocol to communicate with android devices (1).

Android Debug Bridge (ADB):
It is a tool, using ADB we work with many software & hardware. ADB helps to manage the state of an android powered devices. It allows the user to send commands to their android device from computer also. The name suggest bridge; it should be act as a communicator between two application developers.

Native Development Kit (NDK):
Android support s and make use of its NDK. It also supports for the development of the Application using Android (2) and can be integrated with native code with java code also. First, the many applications are developed in java code but with the success of developing NDK for android, the applications are developed without using java code.

II. CONCLUSION

In worldwide, many of the people are using smartphone based on android operating system. As the developed evolved over a time the developer can create new application of their own source code. In this paper we learned about various tools like SDK, ADK, ADB, NDK, etc. By using various tools, we can learn & build applications and more& more platform developing operating system in different field. Operations like Process management, internet protocol,

internal storage and other core are all based on Linux kernel.

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