01 Mobile Application Development Architectures

1.1 - Introduction :-

Android is complete set of software for mobile devices such as tablet computers, Notebook, etc.

It can be through of as a mobile operating system. But it is not limited to mobile only It is cursenty use to mobile, tablet, televisions etc.

Android is software package and linux based operating system. fe the mobile devices such as tablet.

The goal of android project is to create a successful real world product that improve the mobile experience for the user.

Features of Android :-

After learning what is android lets see features.

1) It is open source

2) Anyone can customise the Android platform

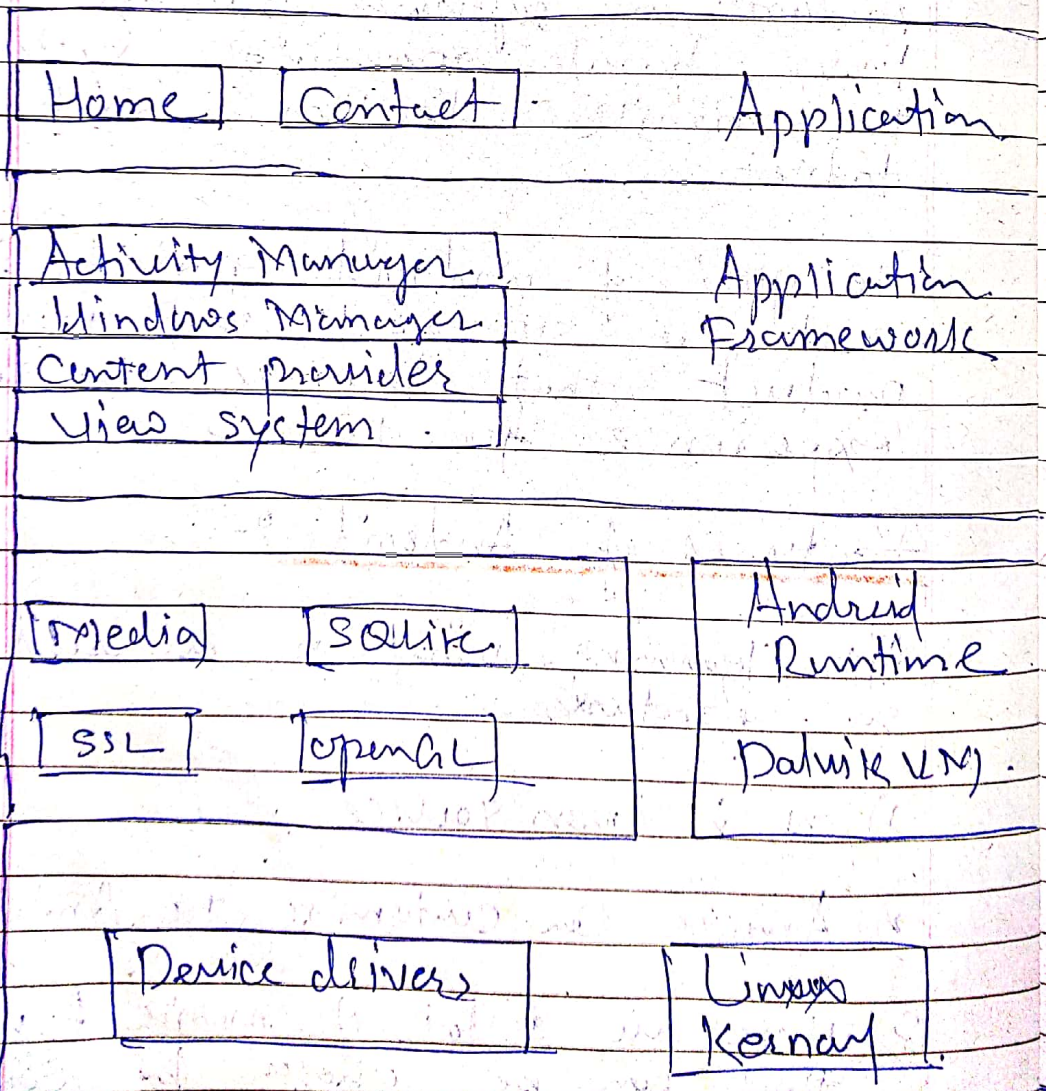
3) There are a lot of mobile Application that can be chosen by consumer.

4) It provide a many interesting features.

* Android Architecture :-

This architecture is devide into five part.

1) Linux Kernel.
2) native libraries.
3) Android Runtime.
4) Application framework.
5) Applications.



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Linux kernel :-

At the bottom of layer is linux. This provide the level of abstraction between the device hardware and it contain all the things that linux is a really good as such as networking and a vast array of device.

Libraries :-

On the top of linux kernel there is a set of libraries including open source web browser engine webkit. Well known libraries libc

Android Runtime :-

This is third section of the architecture and available on second layer from the bottom This section provide key components of called Dalvic virtual machine which is kind of Java virtual machine specially design and optimized for android.

Application framework :-

The Application framework layer provide many higher level service to application in the form of java classes. App^n developer are allowed to make use of these service.

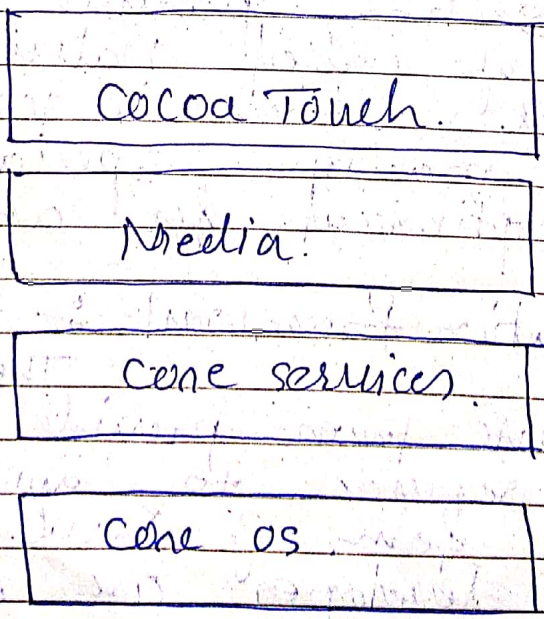
Application :-
You will find all the application at the top layer. You will write your application to be installed on this layer only.

* IOS Architecture :-

The IOS is the operating system created by apple for the mobile device.

The ios architectured is layered. It contain the inter-mediate between the application and hardware so they don't communicate directly.

The layered ios Architecture as follows.



Apple ios Architecture.

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Core OS :-

ios Technology and build on low level. featured provide by the core os layer. So These Technologies include core blue-tooth framework

Core services :-

There are many service are there core service layer.

- Cloudkit framework.
- core foundation framework
- core Data framework
- Address Book framework
- Healthkit framework.

Media :-

Media is layer are enable all the graphics audio videos. technology and native drawing engine for ios apps.

Cocoa Touch :-

The cocoa touch framework layer provide the following framework

- Gamekit framework.
- Mapkit framework.

* Hybrid Mobile Architecture :-

When it comes to mobile architecture the hybrid has many proponents. First we need to know what does hybrid means.

Apple and Google both prefer developer to create application targeted towards the OS this means developer need to write two unique app which are incompatible with each other.

Hybrid architecture attempt this mitigate this duplication of effort by developers. Create one codebase that can be used to either OS. means that only one codebase is used for both OS. this is time savings are there.