Review Paper: Analysis of Some Android Versions

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Abstract— *As we all know that more people work or use the mobile phones other than the computers and the laptops. There are almost six billion users around the world. That would be not wrong to say that mobile phones is also include in our basic needs because the mobile phone is that only the device through that we can do that things which are only done by the computers or laptops. But the PCs and the laptops are much heavier so that's why mobile phones are mostly used by anyone. There are many more different Operating Systems for the mobile phones like iOS, Windows mobile os, android etc. We can see that the flexibility of android is much more good than the other operating system. Because in android there are more flavor than others and attractive widgets in it which is the main cause of popular the android and one more special aspect is, simplicity of it. Anyone can easily operate the Android OS.*

The main advantage of the android is, open source. Means anyone can download android development software and the ADT and everything which they want and create their own innovations. So the android platform is the best option for the developers to make their logics and test them in the real world.

Keywords— android, operating system, google, ADT.

I. INTRODUCTION

We also know that there was no central point to control the production of the mobile apps but now we can see that there is a massive way to centralize all the mobile apps and the important thing is that we can download any type of android app by just a single click. So through the android the apps store also developed so that anyone can get access it from anywhere. By the android market a single organization can take care of the innovative idea of any other. So the result is a full, production-quality consumer product with source code open for customization and porting.

The android is developed for the purpose of centralize the whole apps that is Google play store from where we can download or upload any app. And most important part is that we can also get in touch with updated apps daily and also share our new creations. So the concept behind developing the android platform, is just centralize a store.

This centralize concept is useful for all the companies. We can see that all the mobile companies are mainly focus on the hardware components of the mobile because they don't need to worry about then applications run on it. They just have to manufacture the mobile device which can support to the android operating system that just only the requirement. As we all know that the Android operating system was very new when it is launched so it is very difficult to exist in the market. Apart from the existence but also Android got the first position in all Mobile Operating System all over the world. So the Android has started its own business from the zero percent to approximate 100 percent.

The most important thing is that Android is a open source so it's not really belongs to the Google. So anyone can just copy the code from anywhere and just modify it according to their requirement and create its own app. One of the most important cause of Android popularity is that, maximum all the apps are very compatible with hardware(Mobile Phone Devices).

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Here some versions of the android :

Alpha (1.0)
Beta (1.1)
Cupcake (1.5)
Donut (1.6)
Eclair (2.0–2.1)
Froyo (2.2–2.2.3)
Gingerbread (2.3–2.3.7)

Honeycomb (3.0–3.2.6)
Ice Cream Sandwich (4.0–4.0.4)
Jelly Bean (4.1–4.3.1)
KitKat (4.4–4.4.4, 4.4W–4.4W.2)
Lollipop (5.0–5.1)
We just talk about the some latest versions of android:

II. ANDROID 4.0–4.0.2 ICE CREAM SANDWICH(API LEVEL 14)

Android 4.0 "Ice Cream Sandwich" is released at 19 October 2011. This is upgraded version of 3.0 "Honeycomb". The "honeycomb" version is totally developed for then tablet only so it is not properly for the mobile devices. After some modifications in that, the new version is developed which is named android 4.0 "Ice Cream Sandwich". And this version is more comfortable with both Tablet and Mobile.

It also have some of other new features, including refreshed home screen, near field communication support, able to beam content to another user, updated web browser, new contact manager, control the camera and controlled music playback from lock screen and other improved functionality etc.

The Android 4.0.1 (Ice Cream Sandwich) was based on the Kernel 3.0.1 of Linux operating system. It was released on October 19, 2011. This version was the last version which officially support Adobe Flash Player. And after some time number of updated features were introduced. Some are :-

- Numerous bugfixes and optimizations : This version has configured to detect the bugs and fix them.
- Improvements to more attractive animations and graphic widgets, database support like SQLite, more effective spell-checking to correctness and improve our dictionary and effective Bluetooth functionality for better performance.
- Some more new updated features for the video resolution which make the quality of pixels.
- More Smootherfunctionality for screen rotation and browse etc.

III. ANDROID 4.1–4.1.2 JELLY BEAN(API LEVEL 16)

Google announced that the latest version of Android will be android 4.1 (Jelly Bean) on June 27, 2012.In it the kernel was updated to Linux kernel 3.0.31. Jelly Bean was the updated with some good and effective features but the main purpose to promote/produce this version is tomaking the easy functionality and effective performance of the user interface. The performance was improved by using the "Project Butter", which uses touch anticipation, triple buffering,

extended vsync timing and a fixed frame rate of 60 fps to improving the smooth touch and sliding. The first device on which the android version Jelly Bean was released on July 13, 2012.

The updated version of Jelly Bean 4.2 was launched which is based onLinux kernel 3.4.0, released on November 13, 2012.

- In the Notification bar adding some power controls like Quick Settings from where we can directly change the general settings.
- In this version the Lock screen has been improved, and including more widget support with the ability to swipe directly to camera.
- Multiple user accounts can be create using this version of android but this feature only for the tablets.
- New clock application with some extra features with built-in world clock and stop watch, timer etc.
- This version support the Bluetooth audio streaming with fixing/solving all the bugs.
- Group Messaging can be done using this version of android.
- USB debug is the most powerful tool to run any application by eclipse or from the programming panel.

IV. ANDROID 4.4–4.4.4 KITKAT (API LEVEL 19)

Further Google announced that the latest version of android will be declare on 3 September 2013 which is android 4.4 kitkat. When this version is declare then initially its name is "Key Lime Pie" codename but then name is changed because very few people know the actual taste of key lime pie so that's why developer give the kitkat name to this version. It is said by some technology blogger that the key lime pie will be the up coming version of the android. The kitkat was run on google's Nexus 5 on October 2013.

Android 4.4 kitkat version gives a new working set which supports for more security then the previous versions like NFC-based transactions by using Host Card Emulation(HCE) for payments and believing programs and many more services.

There are some features of this version :

- Accessibility constraints to the application when user want to open a specific app without accessing permission. Except from the directories
- In this version we can also use the wireless printer which has the capability to print documents without using single cable.
- This version designed with keeping one more important thing that is performance. In this version developer focused on the optimization of the performance on the devices.

V. ANDROID 5.0–5.0.2 LOLLIPOP(API LEVEL 21)

Android Lollipop is the latest version of the Android mobile operating system. This version is not so good than the previous versions of the android because there are some bugs and errors in it. At some news point and on the basis of the review this version got no more fame as like previous versions.

But after some all the bugs and the errors are analyzed and solved. After that this version also became a famous version of android.

There are some features of this version :

*   In this version the notifications are display on the lock screen.
*   The recent apps menu was redesigned to use a three-dimensional stack of cards to represent open apps.
*   Lollipop also contains major new platform features for developers, with over 5,000 new APIs added for use by applications.

VI.   CONCLUSION

I've read out all the facts, subjects and topics which I mentioned above, that Android is a more powerful mobile operating system than the others. That's why it became more success in just few time of period. All success was get by only one important point that, Android is free of cost. Means everyone can easily get I free from the internet and create any type of application according to their requirements. One more powerful tool of the android is, it can be install at every mobile phone device. Means it is not for a specific device, it is platform independent. Android gives the permission to edit any application according to the requirements of user but in the iOS and apple we can't do this type operation. So the Android is only platform where anyone can just create its own apps and install it at their devices. So it is the good and world's best operating system.

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