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Research on Analysis of Android App Development

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ABSTRACT :

In Android App Development, we aim at creating a robust application to meet the user needs. In order to do that, we use different types of technical skills as well as Android Studio Platform which is built by google itself, the google is also responsible for building Android OS which a linux based operating system that is designed for mobile devices. Android Devices has a giant user base and that is why Android App Development is in demand.

1. Introduction

Now a days, developers more commonly refer to the products they construct using Android Studio as they are more robust and faster as well as they align better with the Android OS. However some developers still use other IDE for Android App Development. This is a personal choice of a developer however this research is based on Android Studio only. If someone want to build app using some other IDE then they should refer to some other research paper because this research paper is only based on creating Android Apps using Android Studio IDE.

2. What is Android Studio IDE?

Android Studio IDE is an Integrated Development Environment. An Integrated Development Environment is a set of tools that assists the developers in order to execute their development process smoothly. IDE is a faster and more efficient way to create applications, without the help of IDE, it is cumbersome to build applications however it can still be built without IDE but in that case we need to make sure that the file structure is all right

3. Why to use Android Studio?

Using Android Studio IDE requires powerful machine with at least 6 Gigabyte of primary memory or RAM(Random Access Memory). We need more RAM if we want to make use of the emulator of the Android Studio IDE. In that case we will be required more RAM.

Not only this, we will also be needing some good GPU (Graphical Processing Unit) as well as a powerful processor. Processor plays vital role when it comes to running Android Studio on your machine. Without a powerful processor IDE will lag and will take more time and sometimes may even get hanged and get stuck up on one screen or task. For these reasons we will need a very powerful machine with all these components working well in order to make it a sound development.

About Android Studio IDE, old developers say that it got much better now as it used to hang a lot before but with constant work of developers in Google, it has been optimized pretty well. This is a good reason for doing Android App Development using Android Studio IDE as it is backed by the tech giant as big as Google which is one of the best part about it. Without the assistance of Google's hard work to make Android App Development easier we could have not made this far in the journey of improving mobile app experience for our user.

Given below is the logo of Android Studio.



4. What is need to do Android App Development?

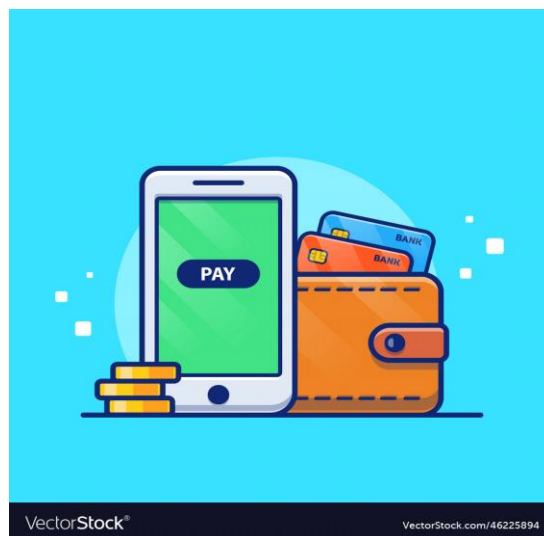
With the increasing number of mobile phone users in the world the need of more Android App Developers is no surprise. Therefore we need more Android App Developers in the world in order to assist the increasing demand of Android Apps. Most of the mobile phone on this planet uses Android as their operating system and Android therefore has the largest user base. For this reason, Android App development is the new cyclone of development all across the globe.

Despite the fact that there are competitors in the market like Apple coming up with new iPhones and IOS for their users in order to provide them the best user experience, Android Operating System still stands it's ground and provide similar services and security to it's users in budget that respects their pockets.

For this reason, Android devices are the first choice for billions of families across the globe.

With the increasing demand of Android users every day, Android App Development is overflowing the demands and due to this reason no Android App Developer is facing lack of projects and work.

Mobile phones have replaced the heavy laptops to those who don't need to use the laptop for cumbersome tasks like gaming and development and who need a computer in their pocket everywhere they go. For this reason, mobile phones have the largest market share and this makes them the affordable choice for most users, ranging from adolescence and senior citizens.



Source: Credit of the above image goes to VectorStock.com

Not only this, even if we have a look at the traffic that most websites receive, it is from mobile phones the most. Be it websites like youtube or platforms like paytm that exist because of mobile phones in the market. Most the people like watching youtube videos on their phone, and most of the social media platform users use these platform via their phone.



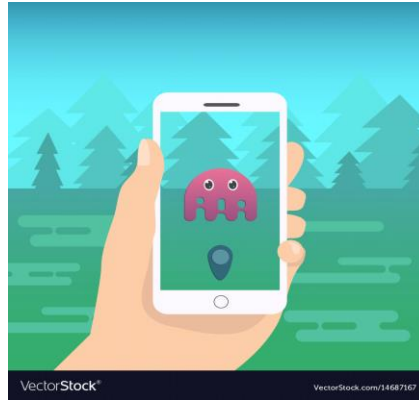
There are endless reasons why mobile phones has brought a revolution in the world of development and technology. For this reason, there is no doubt that mobile phones will not face any replacement or substitute in the coming near time no matter what so ever. This is the reason why Android App development is a smart choice for most developers to make.

5. Features of Android Apps

- User Friendly Interfaces
- Multi Device Compatibility
- Push Notification Facility
- High Performance
- Offline Capabilities
- Customization Options
- Integration with Social Media
- Integration with Device Features
- In App Purchases
- Security Features
- Regular Updates and Support
- Simplicity

User Friendly Interfaces

Users are given the best interfaces which are easy to understand and use. User can navigate through the features easily and this increases their overall quality of experience.



Multi Device Compatibility

The apps designed are compatible for multiple mobile devices in order to target more and more possible users.

Push Notification Facility

It has been observed that push notification are the most effective form of notification as the user is more likely to check their phone than their email. For this reason, push notification is the fastest as well as the notification with most impressions and Android Apps are the best medium to provide push notifications to the users.

High Performance

Android App enhances the performance of the application and gives the users better experience than they can get on the websites.

Offline Capabilities

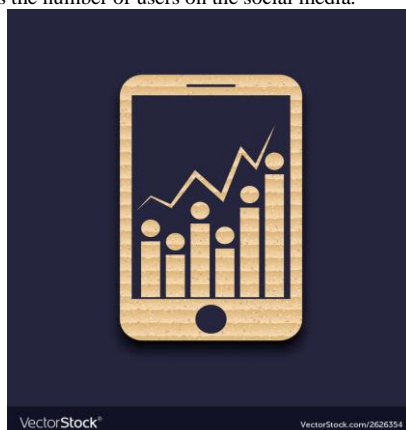
This is one of the various places where Android Applications outsmart the websites providing the user with offline facility and therefore Android Apps are able to entertain and provide the users with the services even the internet is either turned off or is not available to the user. This is a giant assets that Android Apps have.

Customization Options

Android apps provide their users with customization options which are according to the user and the fixed by developers. This makes it a good feature and welcomes customization from all kind of users bases on their needs and wants.

Integration With Social Media

Android Apps have features via which integration with social media is possible and made easy. Using features like these the users are able to make more use of their social media accounts which also increases the number of users on the social media.



Integration With Device Features

The apps are so designed that they integrate well with the features of the devices that uses them. The apps share very fine interoperability with the devices that have Android OS installed that using the settings app of the system, we can make changes to any app's any feature.

In App Purchases

The In App Purchases are the facilities to provide the users with more features after they make payment for that. It makes the user access the more optimized features that enhances their experiences.



Security Features

Security is best served by Android Apps for the purpose of net banking as well payment tranfer. UPI has been a very revolutionary evolution when it comes to digital payments and most of the UPI apps are Android based.

Regular updates and Support

As Android is backed by google, it gives constant updates as well as upgrades and it gives us the suitable compatibility with those upgrades. For this reason, android is considered as one of the most reliable operating systems to do development for.

Simplicity

Simplicity is best served by these simple android apps that gives the user what they need in the simplest possible manner and easy to understand interface.

6. Conclusion

Android app development is a good domain to start developing in. In this research we analysed that the Android App Development is secure and is meant to grow in the coming years. There being an Android App Developer is a smart choice to make.

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