**HIGHER EDUCATION INSTITUTION**



**Faculty: Computer Science and Engineering**

**Name of Occupation: Mobile Applications Developer**



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**1 Introduction**

## **About the job**

A Mobile Application Developer designs and builds mobile applications. A mobile application developer must learn the software development environment and be good in IT programming and has depth knowledge of the different computer languages such as Java, PHP, MySQL, C++, C#, Python etc., they create apps for different platforms : Android, iOS, Microsoft. They work closely with computer analysts and engineers in applying the various languages for developing mobile apps. As you can see it is called mobile application developer but they create apps for computers, tablets, smartwatches etc.. Depends on what platform (Android, iOS or elsewhere) you like to develop, what kind of development interest you, and where you want to work, your choices will be likewise constrained.

## **History of the career**

The Motorola DynaTAC 8oooX in 1983 was the cell phone that started it all, at that time mobile phones could do a little more than calls, Nokia and other manufactures decided to add something new, first they add simple games such as Snake, Pong and Tic-Toe.

This games we’re simple but for that time perfect and this games opened the doors to app development and the users phones wanted more for their mobile phones apps like this but still it would be decades before app developers began making apps that costumers truly wanted.

At first mobile users had really hard to use this new apps, apps such as ringtone creators, calculators, basic arcade games and calendars. At 80s, 90s manufactures carefully guarded their secrets and didn’t leave their platforms open for development. As a result app development was in house only.

Still companies tried to offer apps for costumers via the internet by using the Wireless Application Protocol (WAP). It was designed to address the 90s phone problems had, such monochrome screens, limited processing power and a little storage. This was great to begin but costumers saw the drawbacks including high usage charges and complex methods of receiving apps, apps limited to a single manufacture’s apps.

As more devices hit the market, development costs dropped and more devices now started using platforms for app development such as Linux and Windows. This opened the doors for a new generation of app development.

In 1993 IBM did something new called “Simon”, it was a mobile device with touchscreen, this mobile device included access to all the apps that users wanted such as a clock, calendar, fax, notepad, contacts, email and games. And this mobile device gave better look at this apps and it was easier to use, those specification made this phone very popular. But users wouldn’t get a taste of what they were looking for until 2008 when Apple released the iphone with an app store and users had a marketplace of apps easy to access and install.

While options were still limited, the development companies understood that they should give users the variety and ease of use that they have been asking for since 80.At this time android too made his debut.

In 2011 app usage surpassed mobile web usage. In the years that followed Apple and Google had 15 billion downloads a piece in their marketplaces.

They started with a simple games and evolved and become a must have to get things done quickly. Users are spending 87% of their time on apps and 13% on mobile webs.

The mobile application developers are upon the modern world and will increase as long as the internet is the primary medium for socialising.

## **Primary responsibilities of mobile application developer**

  The mobile application developer has many responsibilities when creating an app.

Some of typical primary responsibilities are:

* Knowing the client’s requirement and finding a solution with colleagues.
* Developing application programming interfaces (APIs) to support mobile functionality.
* Keeping up to date with the latest technology, concepts, terminology and to do best practices for coding mobile apps.
* Adapting and using existing web applications for apps.
* Working closely with the group to constantly create innovation apps.
* Being creative to create one of a kind apps
* To still work in it’s app after it’s unleashed in market, to update it for clients needs etc..

## **Requirements of a mobile application developer**

To be a great developer are required some qualities that all top mobile developers should have:

* **Knowledge of Cross-Platform.**

(According to Fueled) there are more users in Google Play Store, but the users of App Store spend more time using apps. Being a developer for more than one platform will make your life easier to find a job, but being a cross-platform developer offers several other benefits:

* The cross-platform development allows to reuse the code and sync it with multiple platforms (iOS, Android, Microsoft).
* The team spends less time and money because you should not create same app more than one time.
* **The necessary Set of UX/UI Skills.**

The main goal of a mobile app developer is to acquire the target market and engage as many users as they can and this can be achieved only by having a UX/UI skillset. Although a team of developers is going to work with a team of designers but they should have a basic knowledge of UX/UI.

* **Knowledge of the Most Popular Programing Languages**

There are several languages that developers use, no matter which one developer choses it is preferable to know couple of them and the ones that are mostly in use. And for every developer being up to date with the news about programming languages is a day to day activity.

* **The Ability to Work in a Team.**

Mobile developers are team players because mobile development requires teamwork in order to make boom an app on the market. So they should be good at communication and organizational skills if a team wants to reach his full potential this two are essential.

* **Relevant Qualification**

Top mobile app developers have relevant qualifications, one that it is preferred qualification is a college degree, but there are more and more self though developers and took online course. But above all qualification is experience.

* **An Impeccable Portfolio**

A good portfolio is a good proof of a developer’s experience, commitment and excellence. A portfolio provides a glimpse into the developers work. It gives you information about developer’s technical skills, willingness to take risks and try something new, ability to communicate.

* **Coding**
* **Backend web services knowledge**
* **Unit tests, automation, and code reviews**
* **Creativity and brainstorming**
* **Willingness to learn new technology**
* **Complex problem solving (Artisatalent).**

## **Characteristics of a mobile application developer**

We rarely find a mobile app developer within other, which is so interesting to build teams, in this teams you see first a lot of personalities than ideas, projects, imagination, creativity all of this to produce a product that would cache the attention of people.

So a mobile app developer has :

* **Unwavering self confidence**

A mobile app developer creates new apps out of imagination so this needs some self confidence. This is a job that a lot of people would rely on it, for you’re project you are master of it, so all the questions about that why things are the way they are goes to you.

* **Unwavering self doubt**

As much as you need confidence to create an app, you need to have a level of doubt that you can do it the way you plan. Confidence is a powerful thing but untamed by doubt can be very harmful. Without self doubt we wouldn’t make tests to see if it works an app wee create.

* **Crushing humility**

Humility makes self confidence and self doubt together, it is what allows you to approach your colleague from a position of “I am 99% confidence that this is the right way but I want you’re thought too”. Starting a conversation from a specific point of view shorten it. Having the humility and self doubt to ask for the conversation helps to improve your thinking and having the humility to admit when you are wrong during the conversation helps to reach the best possible outcome.

* **Overly helpful**

Making someone’s day better is a good thing. Saying “yes” and make things easier for someone is worthwhile. And this will bring more weight to your “no” because you will be one person that usually says “yes”. Always chose to be helpful because you never know when you will need a favor.

And a lot of others characteristics.

## **Working environments of a mobile application developer**

The mobile app developer works in office or it could work in home too. Their job is exiting because they create products that they want. The mobile app developer can create just by itself or it can work for a company. This job usually requires an office to work because in most cases is teamwork.

**Job characteristics of a mobile application developer**

Their job is very nice when you work for a company because you work in teams and you have new things to deal with, every day, their job involves around 40 hours every week (without overtime), but you can create something in your own so that depend on your own rules how much you work for it. Sometimes you need to hurry with the project so you need to be prepared for pressure and overtime job. It can be sometimes a very tired job because it is said that best ideas comes in the night so sleepless night shouldn’t be problem. In this job it is not required a lot of travel.

**The advantages and disadvantages of being a mobile application developer**

Being a mobile application developer has its advantages and its disadvantages, this job isn’t easy but it has advantages:

### **Advantages**

* **Expanded Market Reach**

First and primary reason to create an app it is to connect as more costumers as possible with your business. And the android platforms dominates the mobile market. (According to Statista, in 2016), Android made around 81.7% of the global market share, going ahead of iOS.

* **Open Source**

By using an open source platform an android app developer would have access to everything that Android has to offer . including licenses, royalty free, and the latest tech framework available. The open source architecture of Android’s Software Development Kit (SDK) enables developers to stay up to speed with the latest enhancements in Android mobile application development. The open source tools that android platform provides allows the user to fix and improve apps.

* **Low Investment/High ROI**

Android platform has a low barrier to entry, which it is good when you consider the high return on investment (ROI). the android community has open access to Android SDK which reduces costs for developing apps and licensing. Being an android app developer will provide access to a bigger audience with less money.

* **Easy to Integrate**

Android app developers easy can integrate and modify their apps to meet the needs of users.

* **Easier Adoption for Developer**

Another advantage of being an android app developer is that the platform is build in Java, which is the most popular programming language out there. So it is much easier for app developer to develop under android umbrella.

* **SEO Optimization Through Google Play Links**

Developing on the android platform allows businesses to generate more brands awareness so brand success is depending on search engine optimization (SEO) and Google has the largest one on the internet. The more clicks the app makes the SEO ranking will improve making both the app and the company website more popular.

### **Disadvantages**

Creating apps has it good sides but what about the risks, for those disadvantages we will talk now:

* **Building a Mobile App Has a Hefty Price Tag Attached To It**

Building a mobile app takes more time and money than developing a website and you might need to develop different versions of it for different app stores iOS & Android absolutely necessary ones.

* **The Process of Developing a Mobile App Can Be Quite Complicate**

Building an app can be quite complex with a few crucial decision that you should make. There is a chance that you don’t have the right technical experience and is tough. You should consider iOS & Android and a hundreds of different devices which makes the process quite complex.

* **Concluding Note**

If you don’t move ahead with changings you will fail, you will be wiped out sooner than you think, be prepared for a lifetime evolving.

## **Mobile application developer’s further advancements**

To be a mobile app developer first you need to possess skills and knowledge. You can earn this skills by earning an associate or bachelor degree in computer science or a similar discipline (for example, management information systems). You can further your efforts to master mobile app development by attending code bootcamps program springing up to train aspiring developers. Some basic qualification you will need:

* Understanding of principles of secure, stable mobile app developing design.
* Understanding of the mobile app development process and lifecycle, including the design develop test release maintain cycle, and long term lifecycle support and maintenance.
* Exposure to and understanding of some development methodology and development platforms or environments.
* Knowledge of programming languages.

This framework is basic stuffs that you need for a mobile app developer in general next comes the topics, technologies and tools to develop.

## **The career path of a mobile application developer**

If you have a certification in mobile app development you can expect on of the following job profiles:

* Senior Software Developer/Mobile App Developer
* Senior Web Developer/System Developer
* Video Game Developer
* Team Lead, IT/Manager, Software Development

# **The interview section**

I made an interview with Naejeet Soni (Mobile App Developer) who is CEO of Lean Apps. His company is located in Berlin, India and US, and it has 50+ employees employed. His company is focused on speed that he think is the most important thing in digital world and in quality, so for this, his company is bringing a lot of processes that would help. One of his company priority is not to wait to long to launch a product , they launch every four to six weeks products. His company develop for both platforms iOS & Android but plans are to scratch this platforms and to develop just react native. The best apps that they created are: Infinia retait, a health product called “Eve I’ve care”. And he says to create a product in EU or US you need around 70.000-90.000 euro.

# **Conclusions/steps to take**

First of all I had really tough time doing my research because it was hard to find information that I was looking but I made it and I am very happy for this project because I learned a lot of things for my dream job, the responsibilities that I have, requirements that I should accomplish, characteristic of the job and a mobile app developer that should has, advantages and disadvantages of this job. Now what I need to do is to study very hard and accomplish my dream job and doing a lot of practice too and than living a peaceful life.

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