HW-Team: Project Proposal

PROJECT TITLE: AppBundle

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Title: App Bundle using Cloud Service

1. Vision:

Nowadays people are using mobile phones to call, to do a business, entertainment, playing games etc. In order to do all these things on a single phone, users face the problem of insufficient phone storage capacity. Our product is a new application where all the other applications are preinstalled in our cloud servers. Unlike the current existing solutions of storing the app data on a google drive, amazon drive, IDrive, dropbox etc. None of these solve the problem of storing the app itself in order to reduce the phone storage. Our application solves the problem of insufficient storage. Customers can readily use the preinstalled apps on the cloud servers without downloading the individual apps on mobile storage.

2. The Problem:

The mobile app industry is thriving with over 2.7 billion smartphone users and 1.35 billion tablet users worldwide. If you just take a second to look around during the day time, I'm sure you will find everyone's eyes are glued to their mobile devices. With this being said, about 90% of the mobile time is spent on apps. This is inspiring for anyone who owns or plans to develop an app. In order to be successful in this space, the users need to download and use your app. Here comes the problem at the users end. More often users gets a warning message of "insufficient storage". For about 25% of the mobile app downloads falls into game category which takes gigabytes of memory on a mobile device. Further, you can't install new apps due to insufficient storage. How to tackle this problem? Common, you can't just a phone with a large space just to install apps. It's not a cost effective method. For example iPhone 11 pro with 64GB storage costs \$999, 256GB costs \$1149 and 512GB costs \$1349. That's a massive price difference for a storage. So, how to tackle this problem?

3. Existing Solutions:

As mentioned above, the problem of storage is ever increasing, which results in more and more need of a medium to store this data. The cloud platform is an excellent resource in order to keep the data safe and handy as and when needed. Applications like DropBox, Google Drive, SugarSync, IDrive, Amazon Drive allows us to store the application data on the cloud service. But then the point is, why just the data? Why not store the application in itself that generates this data. The problem with these applications is that it was all developed for desktop applications and hence lag largely for mobile applications. Amazon released Cloud Drive for mobile application to make the process more faster. But the problem with this is that its a read only file and syncing issues. There is no way to edit or move files you are viewing from the mobile device. This brings restrictions on the user and does not actually serve the main purpose of using this application.

Sources:

 $\underline{https://www.networkworld.com/article/2982326/the-problems-with-cloud-storage-services-for-mobile-phones.html}$

https://androidforums.com/threads/moving-apps-to-a-cloud-to-free-up-usb-storage.577764/

https://www.iqvis.com/blog/best-cloud-storage-apps-for-android-and-ios/

4. <u>Target customer segments:</u>

Everyone uses mobile nowadays for almost everything. In the United States, the most popular smartphone operating systems/platforms are Google's Android and Apple's IOS. Average frequency of using an app per day according to mobile device users in the United States as of April 2018, by age group. On average, U.S. adults aged 35 to 54 years accessed mobile apps 7.7 times per day. The national average daily mobile app access rate was 8.3 times per day. The most frequently used group is millennium, aged 18 to 34, The second largest group is teenagers, aged 13 to 17.

The statistics provide the percentage of U.S. mobile device users who downloaded apps at least once a month as of April 2018, broken down by age. During the survey, 74% of millennial users downloaded apps to their mobile devices every month. Therefore, the target users are the group with high coverage of mobile phone use: the young and middle-aged mobile phone users mentioned above.

Sources:

https://www.statista.com/statistics/201182/forecast-of-smartphone-users-in-the-us/

https://www.statista.com/statistics/243856/daily-app-use-by-us-mobile-app-users/

https://www.statista.com/statistics/243794/us-adult-cell-phone-owners-who-have-downloaded-apps-by-age-group/

5. Total Addressable Market (TAM):

The mobile application market is growing rapidly at an unprecedented rate. According to data from App Annie, the world's leading provider of application market data, the number of applications downloaded worldwide reached 194B in 2018, an increase of 35% over 2017. In addition, the global app store consumer spending and app market has grown by 75% since 2016. The size reaches \$ 101B. However, not only has the number and cost of uploads increased, but the average application time has also increased. By 2020, in countries like the United States or Canada, smartphone users will approximately spend 3 hours per day on their mobile applications.

In 2018, the global mobile application market size was \$106.27B, and it is expected to reach \$407.31B by 2026, with a compound annual growth rate of 18.4% from 2019 to 2026. The main goal of mobile applications is to help users connect them to Internet services and enabling them to use the service on their portable devices.

Sources:

https://gbksoft.com/blog/mobile-app-market-analysis/

https://www.alliedmarketresearch.com/mobile-application-market