Go Buddy

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Abstract— The main problem is that in today's world every student is wasting his or her time on applications which only give them temporary happiness and stop themselves to grow. Students today have no knowledge to manage their own budget in majority. Thus, they should have some knowledge to maintain their own budget. Students have no resource available in form of an app to check their attendance. Hence, in today's world too many students procrastinate on un necessary things and damage their golden years of career. Especially on apps such as Netflix, amazon prime, pubg, etc. However they won't notice that through this applications, they are making themselves down in learning curve as many students only watch the following in school and college. Thus, due to some content in the following applications they are likely to damage their brain in terms of memory, intelligence, etc. which finally leads to un-satisfaction in career and in their life as they start to create a fantasy world of their own mind which has nothing to do with the future.
Keywords: Android, Java, Flutter, Kotlin, Firebase, Tensorflow, Aws

I. INTRODUCTION

Basically, this project is dedicated towards students who are in school or college. Our android app Go Buddy helps them to manage their schedule as well as their collage attendance by one touch on their phone. The main idea to make the app is that every student should have access to latest technology resource for free and can move ahead with it by developing himself is he or she can't follow their schedule. For collage attendance one can login within the app with his roll number and password. The app has a remainder function which reminds one about his or her schedule. This app also has a functionality of planning one's budget. This app is for engineering students especially. But any other student who is in school can also use the app. We have provided everything for free for students. The app has no in purchase and advertisements. Thus, this is done so that students who are from poor background can also use the app and move forward in life. Go Buddy app is made such that it can work on a hardware which is not very powerful so that every type of student can use it. By our app students can follow their schedule properly as well as learn to plan their budget and most importantly check their attendance in collage. Developed on the android platform.
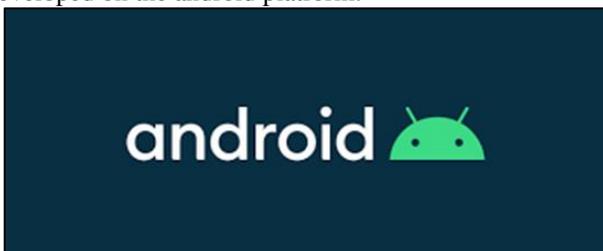

Fig. 1: showing latest android logo

II. LITERATURE SURVEY

The main problem is that in today's world every student is wasting his or her time on applications which only give them temporary happiness and stop themselves to grow. Students today have no knowledge to manage their own budget in majority. Thus, they should have some knowledge to maintain their own budget. Students have no resource available in form of an app to check their attendance. Hence, in todays world too many students procrastinate on un necessary things and damage their golden years of career. Especially on apps such as Netflix, amazon prime, pubg, etc. However they won't notice that through this applications, they are making themselves down in learning curve as many students only watch the following in school and college. Thus, due to some content in the following applications they are likely to damage their brain in terms of memory, intelligence, etc which finally leads to un-satisfaction in career and in their life as they start to create a fantasy world of their own mind which has nothing to do with the future.

III. ANDROID ARCHITECTURE

– Security:- The Linux kernel handles the security between the application and the system.
– Memory Management:- It efficiently handles the memory management thereby providing the freedom to develop our apps.
– Process Management:- It manages the process well, allocates resources to processes whenever they need them.
– Network Stack:- It effectively handles the network communication.
– Driver Model:- It ensures that the application works. Hardware manufacturers can build their drivers into the Linux build.
– Android Runtime:- Consist of core libraries of java and art. Older versions of android had davlik runtime.
– Open Gl(Graphics Library):- This cross language, cross platform api is used to produce 2d and 3d computer graphics.
– Webkit-provides all functionality to display web content and to simplify page loading.
– Media Frameworks:- To play and record video.
– Secure Socket Layer(SSL):- For internet security.
– Applications –Applications is the top layer of android architecture. The pre-installed applications like home, contacts, camera, gallery etc and third party applications downloaded from the play store like chat applications, games etc. will be installed on this layer only. It runs within the Android run time with the help of the classes and services provided by the application framework.

- Application framework – Application Framework provides several important classes which are used to create an Android application. It provides a generic abstraction for hardware access and also helps in managing the user interface with application resources. Generally, it provides the services with the help of which we can create a particular class and make that class helpful for the Applications creation. It includes different types of services activity manager, notification manager, view system, package manager etc. which are helpful for the development of our application according to the prerequisite.
- Application runtime –Android Runtime environment is one of the most important part of Android. It contains components like core libraries and the Dalvik virtual machine(DVM). Mainly, it provides the base for the application framework and powers our application with the help of the core libraries. Like Java Virtual Machine (JVM), Dalvik Virtual Machine (DVM) is a register-based virtual machine and specially designed and optimized for android to ensure that a device can run multiple instances efficiently. It depends on the layer Linux kernel for threading and low-level memory management. The core libraries enable us to implement android applications using the standard JAVA or Kotlin programming languages.
- Platform libraries – The Platform Libraries includes various C/C++ core libraries and Java based libraries such as Media, Graphics, Surface Manager, OpenGL etc. to provide a support for android development.
- Linux Kernel – Linux Kernel is heart of the android architecture. It manages all the available drivers such as display drivers, camera drivers, Bluetooth drivers, audio drivers, memory drivers, etc. which are required during the runtime. The Linux Kernel will provide an abstraction layer between the device hardware and the other components of android architecture. It is responsible for management of memory, power, devices etc. The features of Linux kernel are -Security, Memory Management, Process Management, Network Stack, Driver Model.
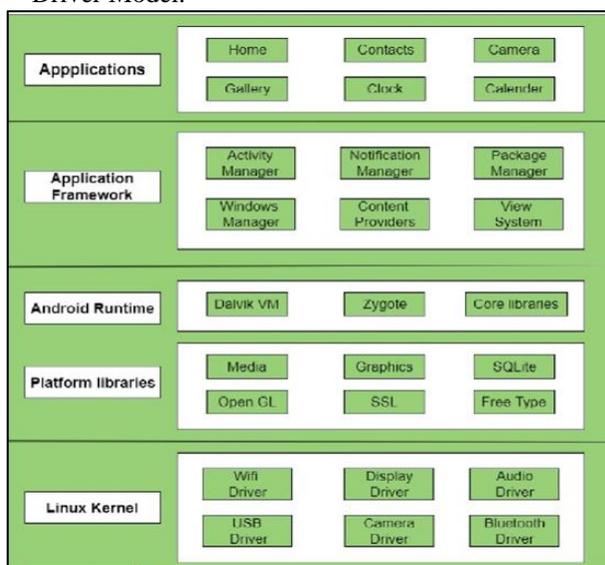

Fig. 2: Showing android architecture.

IV. WHAT IS ANDROID?

Android is a mobile operating system based on a modified version of the Linux kernel and other open source software, designed primarily for touchscreen mobile devices such as smartphones and tablets. Android is developed by a consortium of developers known as the Open Handset Alliance, with the main contributor and commercial marketer being Google. Initially developed by Android Inc., which Google bought in 2005, Android was unveiled in 2007, with the first commercial Android device launched in September 2008. The current stable version is Android 10, released on September 3, 2019. The core Android source code is known as Android Open Source Project (AOSP), which is primarily licensed under the Apache License. This has allowed variants of Android to be developed on a range of other electronics, such as game consoles, digital cameras, PCs and others, each with a specialized user interface. Some well known derivatives include Android TV for televisions and Wear OS for wearables, both developed by Google. Android's source code has been used as the basis of different ecosystems, most notably that of Google which is associated with a suite of proprietary software called Google Mobile Services (GMS) that frequently comes pre-installed on said devices. This includes core apps such as Gmail, the digital distribution platform Google Play and associated Google Play Services development platform, and usually apps such as the Google Chrome web browser. Android has been the best-selling OS worldwide on smartphones since 2011 and on tablets since 2013. As of May 2017, it has over two billion monthly active users, the largest installed base of any operating system, and as of January 2020, the Google Play Store features over 2.9 million apps.
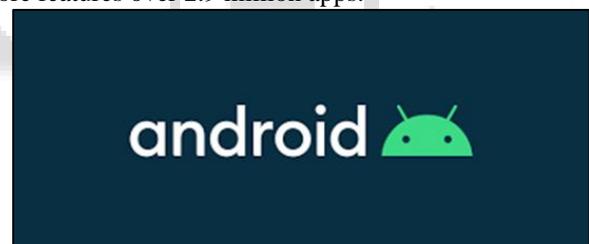

Fig. 2.1: android

V. APPLICATIONS

A. Android in education:

The function of app developers in the development of education and other sectors can never be ignored. App developers deserve some commendation and encouragement because they play an important role in educational support and development with the development of educational mobile apps. With an Android device, education now goes beyond the four walls of a classroom. And with educational mobile apps, information can now reach a wider audience. Thereby, making it possible for people to be able to get the information they would have learned in a classroom. Now, Android phones serve as classrooms or lecture centers while the information on mobile apps serves as the lectures. With this simple analysis, it is safe to say that the app developers developing these educational mobile apps should be appreciated. Mobile app developers from app development

companies know that the best way to get people's attention to study using mobile apps is to develop exciting and user-friendly mobile apps. So, they decided to develop games that are meant to test people's level of reasoning or how well they know a particular subject or topic. This implies that there are entertaining and engaging apps, which are also educating. And it is a fantastic idea to come up with such a concept. This concept is working perfectly because people enjoy using these educational apps. One example of a gaming app developed for educational purpose is the Word Mole. In this game, you are required to create words to score points. When you form a correct or valid word, you score a point. Longer words will award you with more points. This game is very exciting, at the same time, it helps to improve your spellings. And there are numerous other similar games. E-Book apps make it possible for people to find links to the materials they can read to find the information they need. If you are looking for information about something, you can just check for the e-book on your android phone. If you don't already have the app on your mobile phone, you can download and install it. With this mobile app installed on your android device, you can find self-help books, textbooks, library databases, reference guides etc. Another educational app that cannot be ignored is the subject-specific mobile app. The app developers in India have taken their time to develop mobile apps that provide training or lessons on all subjects. Subjects that students usually find difficult have been simplified and developed into mobile apps. Be that as it may, over fifty subjects and more than one thousand topics have been treated. So, it is strongly recommended that students install these mobile apps on their Android devices so that they can learn more about the subjects they have difficulty in. These mobile apps also help to aid their knowledge and understanding on different topics. Language learning apps When talking about educational apps, language learning app is another type of mobile app that should be considered. The Language learning mobile apps have been developed by the mobile app developers in India for people who are interested in learning a new or a foreign language. These apps cover hundred of languages and the developers are still working very hard to include more languages in newer versions. However, older versions can still be updated to accommodate more languages. These mobile apps are built on artificial intelligence, so you will be notified when it is time to update the app. People who plan to work in a foreign country will find these mobile apps very helpful because it will enable them to learn the language of their prospective country. International students will also enjoy these apps because of the same communication factor. This means that whether you are coming into a country with a work permit or a study permit, it is beneficial for you to learn the language of your prospective country because it will help you to eradicate the language barrier that can make it difficult for you to carry out effective communication in the country. People who are just learning a new language can start from the beginners' level then progress to the advanced level while people who already have a basic knowledge of the language can continue at an advanced level. Whatever the case may be, this educational app is the recommended solution for people who are willing to learn a second

language or people who are interested in being either bilingual or multilingual. People make so many common English mistakes. And mobile app developers feel that they can contribute to the correction process. So, they decided to develop mobile apps that can educate people on how to construct correct English sentences. All those common English mistakes have been identified and the corrections have equally been made in the common English mistakes app. So, if you are interested in learning about correct English sentences, it is suggested that you make use of this mobile app.
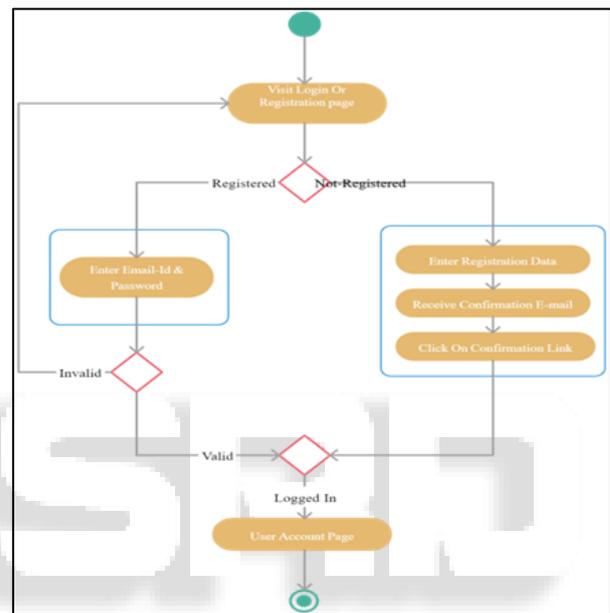
VI. DIAGRAMS

A. Registrations:
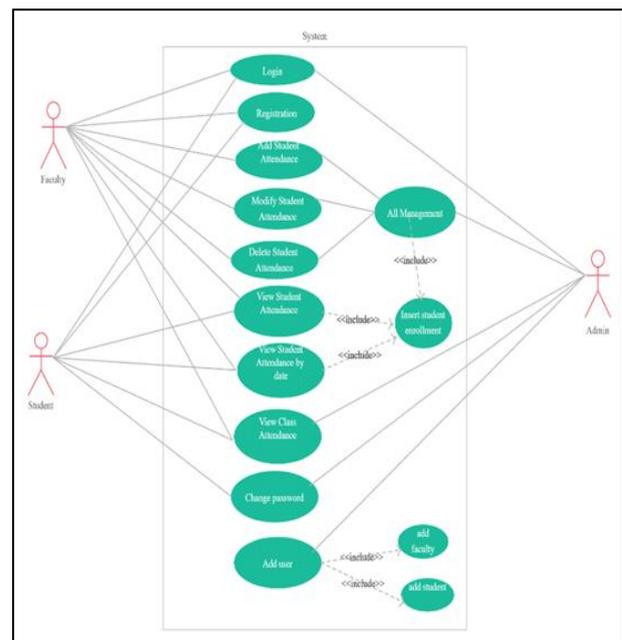

Fig. 2.2:

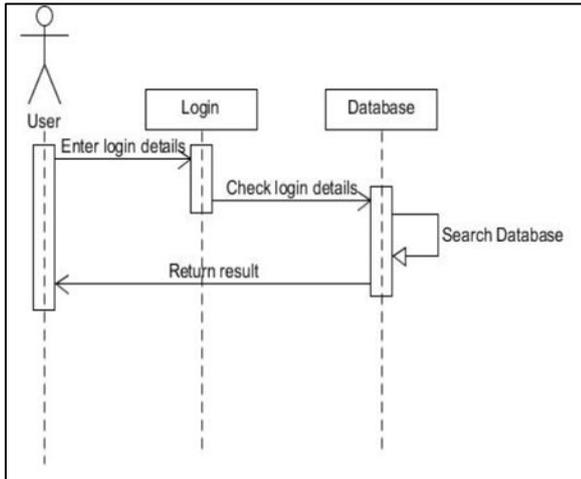### B. Use Case:

Fig. 2.3:

C. Login:

Fig. 2.4:

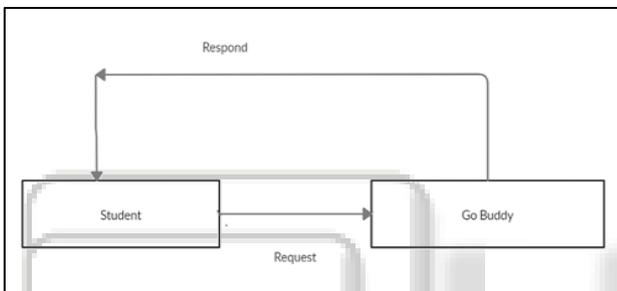## D. Data Flow Diagram:
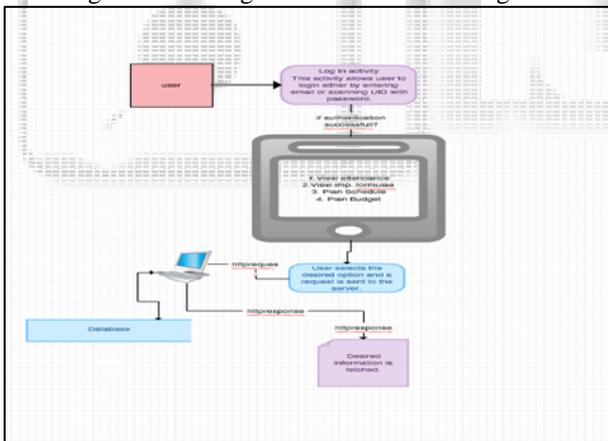

Fig. 2.5: showing level 0 Data Flow Diagram

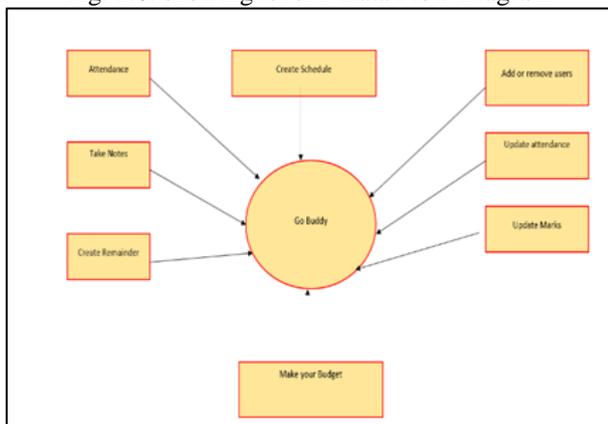Fig. 2.6: showing level 1 Data Flow Diagram

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VII. RESULT

By applying different algorithms with java and using firebase we have done everything what we intended in the description. Thus, now the app is ready to be used with multiple users. Notes functionality is workin as expected and the alarm functionality is working as intended. The app works flawlessly with android(4.4+).

VIII. CONCLUSION

The Era of mobile technology opens the windows to the android app. The websites are vanishing and as a small college management software. The smart phones are emerging It is time to change from conventional websites to apps which has become the part of our daily routine, we are introducing Go Buddy the android application software which would be a miniature of college websites. Our objective is to create an application that will make student life convenient and easier. The application will save time and weight of the notebooks. Go Buddy helps them to manage their schedule as well as their collage attendance by one touch on their phone. The main problem is that in today's world every student is wasting his or her time on applications which only give them temporary happiness and stop themselves to grow. Students today have no knowledge to manage their own budget in majority. By our app students can follow their schedule properly as well as learn to plan their budget and most importantly check their attendance in collage. For collage attendance one can login within the app with his roll number and password. There are only a few existing apps available on play store which work as an assistant but they are paid. Due to which every student is unable to take the advantage of the technology. Thus, through this we encourage our fellow developers to take the advantage of the open source code and make a contributing changes in the society. Thus, due to this many people will change their perspective towards the technology. Thus, this will allow many developers to develop the application according to their own needs by modifying the source code. Thus, we hope that people must look forward for the app.

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