

ANDROID BASED APPLICATION FOR ELECTRONICS AND TELECOMMUNICATION DEPARTMENT

¹Ashwini B. khairnar, ²Dinesh V. Rojatkar

^{1,2}Electronics and Telecommunication dept., Government College of Engineering, Chandrapur, India

Abstract: This paper presents the creation and how to use of Mobile Learning Application for electronics and telecommunication department on Android Platform using Java Programming Language to help students getting every information in our hand. As we are unaware our approach is to incorporate multimedia animations concept with command language to create the pervasive material of in mobile presenting the mobile learning application. With this mobile learning application, student could learn at his or her private place, anytime and anywhere. This mobile learning application intends to complement the current traditional classroom and e-learning systems.

Keywords: Android; Operating System (OS).

I. INTRODUCTION

World is contracting with the develop and increases the of mobile phone technology. As the number of users is increasing day by day, facilities are also increasing. Android is more powerful operating systems supporting a large number of application make life more comfortable and more reliable for the users. Android are mainly based on ARM architecture platform. This is project based on departmental notifications and educational material provide to student directly by using android software. In educational life it is not possible to provide such information include notification, syllabus, teacher info, available reference books, gate information, about department and much more directly. So we can need to build android software based application to provide wide range of information directly to student. This project mainly based on the android software. So it is need to creating android software we can used Java run time environment (JRE) SDK Kit include Java SE Development Kit and Android Studio.

This application include following data-

1. Teacher staff information

2. Syllabus

3. Notification

4. Gate syllabus and information

5. Student information

- In teacher staff information there will be the detail information about all the teachers teaches to the electronics and telecommunication department. Detail information means name, education detail, mobile no etc.
- In syllabus we are including the all 1st to final year syllabus of electronics and telecommunication department. Due to this it is more reliable for students.
- In notification block can be contain message of our head of department on program organized and other messages.
- In the section of gate syllabus and information there will be complete information about gate examination with including syllabus.
- In student information section, complete information about student including address and mobile number.

II. LITERATURE SURVEY

In today's day to day life over more than 1.5 billion people have a uses mobile phone and for every one person who accesses the internet from a computer, tablet, minilaptop, iPhones to do so or from a mobile device. Mobile technology is changing the way we live and it is beginning to change the way we learn and now a days people are becoming wireless and they are bound to internet and various android application. Mobile learning involves the use of mobile technology, either alone or in combination with other information and communication technology (ICT), to enable learning anytime and anywhere. With the help of this application we can provide most of the valuable data to the student when they required. Learning can unfold in a different kinds of people can use mobile devices for using internet and educational resources, connect with others, or create content, both inside and outside classrooms. Mobile learning also encompasses efforts to support broad educational goals and also in the institutions were a teacher cannot teach each and all subject individually so there we can used this application for studying, also update what going currently in that institution or college and displaying result. Such as the effective administration of school systems and to better indirect communication between student and institute there is no direct communication between student and institute. An Engineer is a blend of emerging technology and art. While it is difficult and better, it is also very simple. We define it as, any act that manipulate a person to take an action that may or may not be in their best interest. We have defined it in very wide and general terms because we observed that an engineering is not always negative, but tells us how we communicate with our guardians, parents, children, spouses and others. A survey in INDIAN mobile industry found that mobile device sales increase by 502003, and predicted that tablet/mobile phone sales will outstrip PC sales by 2009 with the most of companies switching to wireless networks by 2010. Computing devices have become omnipresent on today's institution campuses. From PDA devices computers to Wireless mobile phones and portable devices, the bulky inspired of computing devices and drastically improving Internet capabilities have altered the nature of higher education. Computer Assisted Learning (CAL) has buildup tremendously in the last 4 decades with the use of Internet, email, multimedia technology, and intelligent tutoring system on campus. The application has lots Scope in education system. The Application provides the simple and easy way for the mobile learning.

III. DESIGN OF ARCHITECTURE

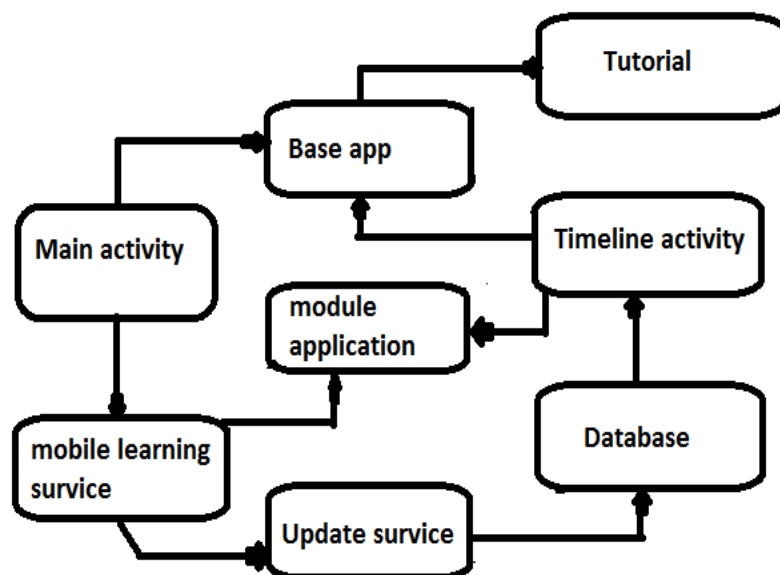


Figure 1: Design architecture

IV. TECHNOLOGY USED

In this application we are using the following technologies.

1. Android operating system:

Android is based on the Linux kernel operating system and developed by Google. Android software development is the process for development of new operating application for android mobile phone and android operating system.

Application are usually developed in Java programming language using the java development kit, java run time environment and Android software development kit (SDK), but other development environments are also available. As of July 2014, more than one billion applications have been developed for Android with over 25 billion downloads. A March 2012 research indicated that over 73% of mobile developers used the platform, at the time of publication. Around 10 billion units of Android mobile phones shipped which acquires a total share of 78% in overall smartphones sale. With a user interface based on direct arrangement. Android is develops primarily for touchscreen mobile devices such as android mobile phone, and tablet computers, with specialized user interconnect for televisions (TV), cars (Auto), and wrist watches (Wear). The OS uses touch inputs that loosely correspond to current actions. Instate of using primarily designed for touchscreen input, it also has been used in playing games on mobile, camera, and other electronics devises. The most popular operating system than other Os is OS. As of 2014, Android devices sell more than Windows, iOS, and Mac OS devices combined, with sales in 2013 and 2014 close to the installed base of all PCs. As of august 2014 the Google Play store more than 3 million Android apps is uploaded on this site, and over 50 billion applications downloaded. And in 3 million application, more than 5 lack application in education field and most of application in medical field. Androids source code is released by Google. And due to this reason any one can have authority to develop any type of application. Google backed financially and later bought in 2005-06, Android was unveiled in beginning of 2007 along with the founding of the Open Handset Alliance of software, hardware and telecommunication companies delivers to advance for mobile devices. Android is popular with technical properties of android based companies which require operating system for mobile and other devices also like TV, camera and laptops devices. The operating systems success has made it a target for patent litigation as part of the so called smartphone wars between technology companies.

2. 2G, 3G and 4G network:

2G (or -2G) is short for second-generation wireless telephone technology and is also called as code division mux. Their generation 2G cellular telecom networks were technologically based on the GSM in 1991. Three primary benefits of 2G networks over their predecessors were that phone conversations were digitally protected, 2G systems were significantly more specific on the spectrum allowing for far greater mobile phone penetration levels. And second generation introduced data services for mobile, starting with messaging. 2G technologies enabled the various mobile phone networks to provide the services such as text messages, picture messages and MMS (multimedia messages). All text messages sent over 2G are digitally encrypted, allowing for the transfer of data in such a way that only the required receiver can receive and read it. After 2G was launched, the previous mobile telephone systems were respectively converted in 1G. While radio signals on 1G networks are not digital it is continues wave analog in nature, radio signals on 2G networks are develops and in this sector company uses digital nature data. Both 1G and 2G systems use digital signalling to connect the mobile towers it means radio tower to the rest of the telephone system. 2G has been advanced by newer technologies such as 2.5G, 2.75G, 3G, and 4G. However, 2G networks is most important sector and still now it use in many parts of the world. 3G, short form of third Generation, is the after second generation of mobile digital communication and digital telecommunications technology. This is based on a set of standards used for mobile devices and mobile telecommunications use services and networks that cooperate with the International Mobile Telecommunications-2000. 3G finds application in wireless voice telephony, video chatting video calling whatsapp calling, mobile Internet access, fixed wireless Internet access and mobile TV. 3G digital communication and digital telecommunication networks support that provide an information transfer rate minimum 200 kbps to maximum 1 mbps. Further 3G releases, often denoted 3.5G and 3.75G, also provide mobile broadband access of several Mbps to Android phone, television, computers, watches and mobile modems. This assure it can be applied to wireless voice telephony before telephony telegraphy is use for telecommunication, mobile Internet access, fixed wireless Internet access, video calls and mobile TV technologies. A new generation means it increasing the bandwidth spectrum of cellular standards has appeared approximately every tenth year since first generation systems were develops in 1982. Each generation is characterized by new frequency bands increasing with manner, higher data rates and no backward-compatible transmission technology. To receive any notification or massage of application on an Android device doesn't need to be use or operate continually. It requires devices running Android version 2.2, 2.3, up to the latest version that also have the Market applications installed. This requires users to set up their Google account on their mobile devices in order to access various applications from Google play store. A C2DM company has been officially deprecated as of June 2012. This means that it has stopped accepting new users and new requests. No new features will be added to this company. However, apps using this will continue to be working. Existing C2DM developers are encouraged to migrate to the new version of C2DM, called Google Cloud Messaging for Android. Third generation has better advantages than second generation in case of speed and data transfer rate.

V. RESEARCH DESIGN

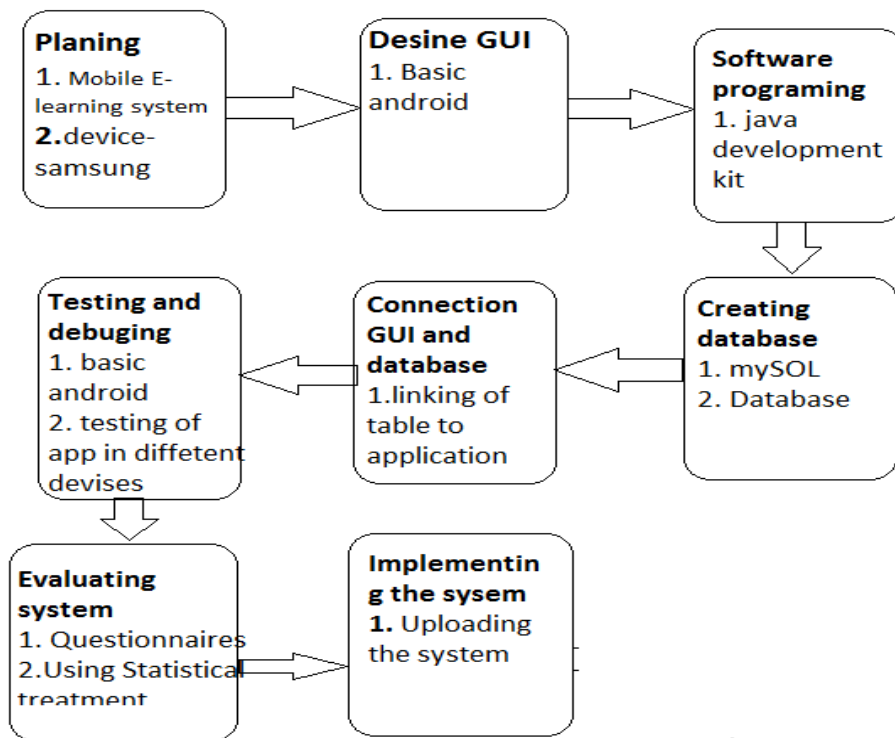


Figure 2: Research Design

VI. CONCLUSION

Hence here we conclude that, the role of android in our life is very important as we are getting all the departmental notification in our mobile which will help us to consume our time where we can use that time in other work also. It will also help in consuming the time in surfing of internet. The uses and popularity of Android mobile application are increasing day by day. Most of the people are trying to use mobile device and mobile application instead of desktop for easy task. Frequently the uses of mobile applications are increasing corresponding to the use of desktop applications. All of the mobile manufactured companies and mobile application So the modern Android mobile applications are more capable and more usable for the user. And the global impacts of mobile applications are going high. In this we have tried to explain the so many things about mobile application and business with some data from modern market. And we think this paper will help to other for further study in the mobile application area.

ACKNOWLEDGMENT

We show our deep gratitude towards our supervisor Dr. D. V. Rojatkhar who has supported and mentored us throughout our work in a righteous way

REFERENCES

- [1] E-Learning for Programming Languages on Android Devices, international journal of scientific & technology research volume 2, issue 9, September 2013.
- [2] Mobile learning application, International Journal of Scientific and Research Publications, Volume 5, Issue 3, March 2015 1 ISSN 2250-3153
- [3] Chao, P.Y. & Chen, G.D. (2009). Augmenting paper-based learning with mobile phones.
- [4] Department of Education, Employment and Workplace Relations. Retrieved September 6, 2011.