

Android Based College Management System: Canary

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Abstract : Smart phones have become an important part of everyone's life. With these smart phones the human life is changed for better. "Canary" is a college management application which basically aimed at managing most of the activities of college. The main objective of this app is to make advancement in education system and institutional activities. This application helps in adding mobility in managing the institutional information. The existing system uses website for publishing notices, or non-teaching staff helps in circulating notices. This is very time consuming process. The android application simplifies this process by giving instant notifications to the students or concerned staff. This application makes this process easier, faster and less error prone.

Keywords - Android, Workshops, Faculty, TPO.

I. INTRODUCTION

In today's time the smart phone evolution has changed the lives of every individual drastically. On touch of a button the world is coming to our fingertips. This Mobile era has simplified our life by putting the world in our hands. The heart of these smart phones is their Applications. There are lots of free applications available at our service. There are different college management applications available in market with the basic functionality of sharing notes, marking attendance, etc.

"Canary" is the proposed system which mainly connects the students, staff, parents, alumni with the college using mobile phone. The staff can enter attendance of students, internal test marks, can share notes, etc. The students can get notifications time to time about the tests, events, etc. The parent can anytime check their child's attendance, performance. The parents get notified with the achievements of college students. They get notified when their document is ready. The college magazines, journals can be shared on the app hence saving cost of paper and printing. The institutional holiday list can be broadcasted on the app. The different circulars notices can be quickly forwarded. The different events schedule can be notified to the students and reminder can be sent.

II. PROBLEM STATEMENT

Now a days most of the colleges have their own websites which displays college information, students can get timetables, test schedules, event schedules on these websites. But for accessing this information the students have to log in to the website. The students can visit the website if they are having internet connection and these websites can be viewed on mobile phones as well. There is one problem with the websites that if there is no internet connection then these websites cannot be reached. Hence offline connectivity is the biggest issue with the websites. The college management involves execution of different activities, using different software for different purposes is very tedious job. So the best solution for this is to make one software for carrying out different activities involves in college management. The software can be made for mobile phones, this is called app. This paper focuses on development of Android Based College management system development.

III. LITERATURE SURVEY

There are different applications available for managing college campus activities. Each app has its own features, advantages and disadvantages. These apps are made by considering requirements of that particular institute. Basically these apps serve a single purpose only and we need different apps for different institutional activities. So the thought is why not a single app serving various purposes of institution. Android Based Campus Solutions helps in doing almost all institutional activities using mobile phones.

[1] **Software Engineering Issues for Mobile Application Development** .This paper provides an overview of important software engineering research issues Software issues are really important to consider as they are the main aspects in building the project. These issues are related to the development of applications that run on mobile devices. Among the topics are development processes, tools, user interface design, application portability, quality, and security.

[2] **The Android Application Development College Challenge.** The Android application development college challenge is a influential Android developer contest for college students in China. It encourages college students to design and implement their applications on the Android platform. In this way, it gives the students an opportunity to show their creativity and learn about the development of Android applications.

[3] **A Mobile App Architecture for Student Information System** This paper proposes a mobile app architecture that reuses the resources of the existing student information system of educational institutions. The educational institutions have an existing website that interacts with a data store to disseminate information to its stakeholders. The data store and the web resources have been reused for the mobile app. Web services are developed to fetch information from the data store.

[4] **A Web Base Android Application Development System.** This paper proposes an novel idea to develop application. Different from traditional programming methods, users can design their application without long term training. The tool prevents syntax and semantic errors during design the application.

IV. PROPOSED SYSTEM

In this project, we had developed an application which is fully reliable and convenient to use. Students particularly login with their particular IDs (Enrollment numbers) and passwords which are provided by the admin. This college application uses smart phones of android platform. The level of privilege given to the admin (HOD) is highest whereas privilege of students is Lowest. Thus, Delegation of Authority is implemented. The admin will add the faculties and the Faculties will add students. The admin and faculties can upload and edit the data and share to the students, but students can only access (read) the data.

Application has various modules such as:

1. Lectures Timetable
2. Examination
 - 2.1 Exam Timetable
 - 2.2 Result
3. Notes
4. Notices
5. Defaulter List
6. Reference Books
7. Events.
 - 7.1 Meetings
 - 7.2 Seminars
 - 7.3 Workshops

Faculty and asmin can upload in respective modules similarly Students can access the data in respective modules. Every user can view their ID number in navigation drawer. Students can give quizzes and visit different details when required by just logging in.

Table: 1 Privilege of Users

| <i>Users</i> | <i>Read</i> | <i>Write</i> | <i>Edit</i> |
|-----------------|-------------|--------------|-------------|
| Admin | YES | YES | YES |
| Faculty | YES | YES | YES |
| Students | YES | YES | NO |

V. SYSTEM ARCHITECTURE

The proposed work has a better, efficient, user friendly system which is named as “Canary”. This app is helpful for teachers, students, parents and alumni. This app ensures the smooth communication between the college and students. The parents are also included as special member in the app so that they can get aware about the events in college. There is a provision of event scheduler which helps to broadcast event schedules to the students as well as teaching staff. Once the event gets over it is removed automatically from the event list.

5.1 Login Page Module

This page allows existing user to sign in and a new user to sign up. It gives various categories options to sign as /Student/Guest/Staff.

5.2 About Us Page Module

. Here general information of the institute along with pictures is provided. So that any user can find out details about the institute and proceed.

5.3 Academics/Department Module

. Teachers and Students will have their login IDs. Also the marks, assignments, quizzes according to the student’s branch, year, division will be displayed in the app. The information of all the departments and their faculties will be given. All timetables and exam dates will be updated time to time.

5.4 Notices Module

It contributes in routine circulars and instant information sending to the various categories of the Students/Teaching and non-teaching staff). Also images can be uploaded. Instant notification is given to the users.

5.5 Holiday List Module

Here holiday list can be set for instant information to all the categories of the institutes.

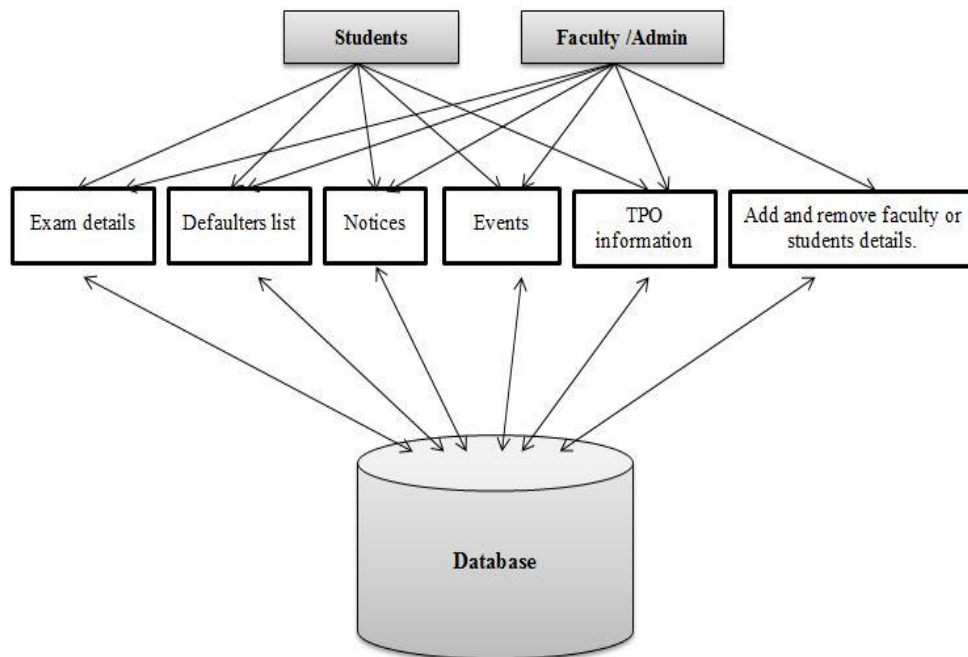
5.6 Events Module

Events can be maintained and informed to the users for all future activities in this module. Events can be set for with time bounds, which will expire after the event is completed. Any events like guest lectures, practical's, cultural events etc. can be maintained along with images, pictures and various formats of documents. Event notification is triggered at every point. Here holiday list can be set for instant information to all the categories of the institutes

5.7 TPO Module

Accolades and achievements of the students, institutes can be broadcasted using this module. Images, write ups etc. can be attached for such achievements and a common broadcast can be sent to all the students. Also The information of the companies coming for placement is also provided.

Figure.1. System Architecture



IMPLEMENTATION

Figure.2

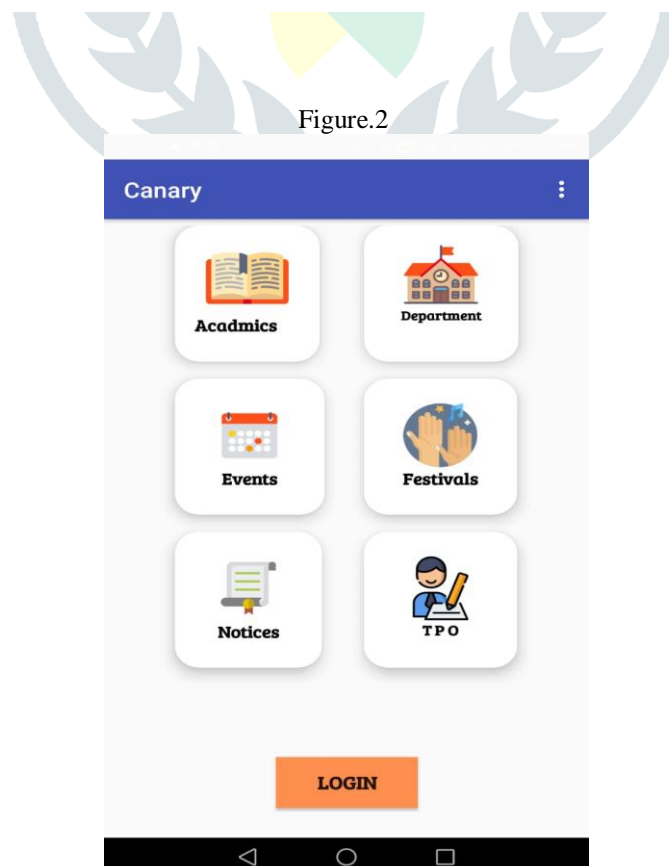


Figure 3.

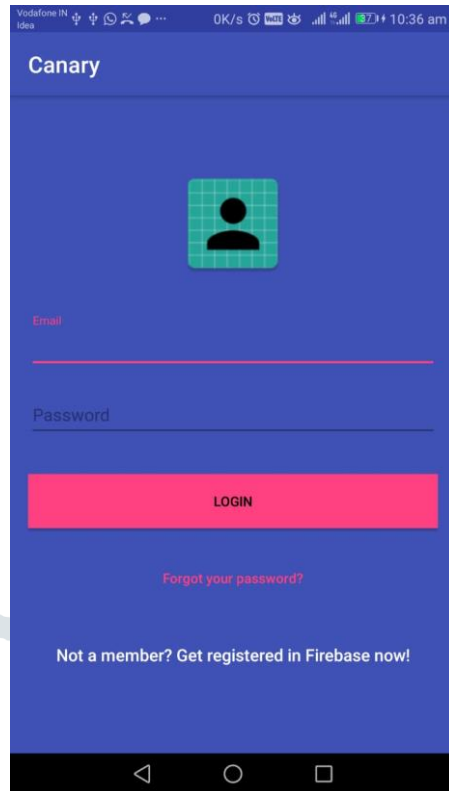
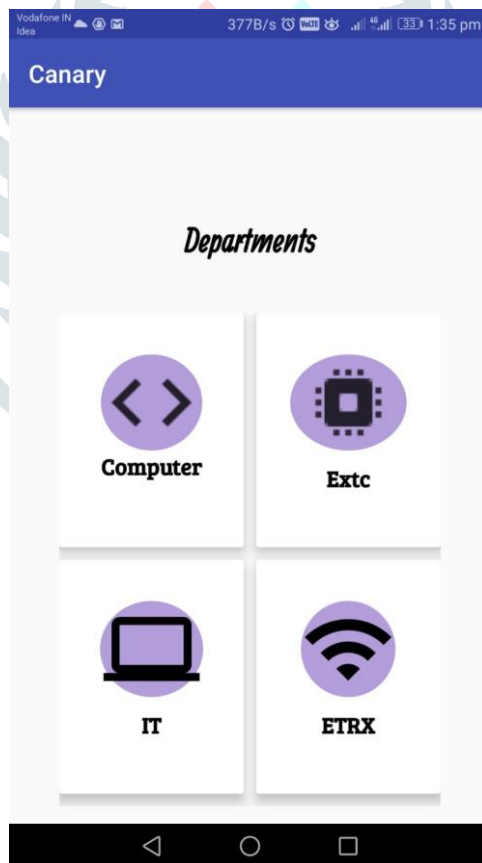


Figure 4.



REFERENCES

- [1] Agrawal, S. and A.I. Wasserman, "Mobile Application Development: A Developer Survey", submitted for publication, 2010.
- [2] Anthony I. Wasserman. "Software Engineering Issues for Mobile Application Development. " 2010.
- [3] Robi Grgurina, Goran Brestovac and Tihana Galinac Grbac." *Development Environment for Android Application Development: an Experience Report* ", MIPRO 2011
- [4] Kwang B. Lee, Raied Salman. "*The Design and Development of Mobile Collaborative Learning Application Using Android*", Journal of Information Technology and Application in Education .
- [5] Wen-Pinn Fang¹ ,Sheng-Hsuan Lu² , Ming-Hao Liu³ , Ting-Hung Lai⁴ , Shan-Chun Hung⁵ , Yin-Feng Huang⁶ , Chii-Jen Chen⁷ "*A Web Base Android Application Development System* " . 2014 International Symposium on Computer, Consumer and Control.
- [6] "*Application Development Research Based on Android Platform*". 2014 7th International Conference on Intelligent Computation Technology and Automation.
- [7] Mrs. M.S.Malkar¹, Pankaj R Gopalani², Gauri N Basutkar³, Raj D Garud⁴, Prachi P Rukari⁵ "*An Android Application for Smart College*". International Research Journal of Engineering and Technology (IRJET). Volume: 05 Issue: 02 | Feb-2018.
- [8] Bin Peng , Jinming Yue, Chen Tianzhou ,"*The Android Application Development College Challenge* ". 2012 IEEE 14th International Conference on High Performance Computing and Communications.
- [9] Vishwakarma R Ganesh "Android College Management System" International Journal of Advanced Research in Computer Engineering & Technology (IJARCET) Volume 5, Issue 4, April 2016 ISSN: 2278 – 1323
- [10] S.R.Bharamagoudar, Geeta R.B., S.G.Totad" Web Based Student Information Management System" International Journal of Advanced Research in Computer and Communication Engineering Vol. 2, Issue 6, June 2013

