Smart Mobile App for Educational Institutes

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ABSTRACT: As the advancement of present day innovation is expanding, the desires of each individual is likewise expanding, each individual needs their everyday errand to be more precise and more less demanding, individuals needs their business to be done readily available, so as with each school association. With the expansion in cellular telephones and portable innovation, the instructive establishments likewise needs to exploit it, subsequently we propose an application that will dispense with the part of customary notification board which we see in instructive organization. By this the work of any school association should be possible all the more effortlessly and all the more successfully. As it has been watched that understudy abstains from surfing notice board. In this way we are fusing a framework that will show all the notification board content on it. This paper gives consideration on entrance of cell applications. For security reason to secure the confirmation of client, to keep up trustworthiness we are utilizing the calculation of Armstrong number to scramble the information with the assistance of cryptography.

KEYWORDS: Mobile App, College Organization, information security, cryptography, Armstrong numbers, confirmation.

I. INTRODUCTION

With huge development in cutting edge Mobile innovation data recovery and data accumulation has gotten to be accessible at fingertips. Each human's everyday errands are being finished with the assistance of this cutting edge innovation. Like web keeping money, perusing books and so on should be possible regardless of spot you are or independent of time with the assistance of the cell innovation.

Information that used to be given to understudies by educators or school powers were finished by general notification board or by means of site, yet we will give it by this portable framework. All warnings will be conveyed to the brilliant portable by this versatile framework. With the assistance of this framework understudies will have the capacity to view every one of the notices in regards to school on their cell telephones.

The portrayal of our paper is that segment 2 incorporates that need of this framework in school association. Area 3 and segment 4 highlights diverse sorts in which versatile innovation has advanced. We will talk about the nitty gritty work, for example, what will be programming utilized while adding to this paper, how we are going to build up this framework, how this framework will work. Area 5 and segment 6 depicts the components of framework.

II.REQUIREMENT FOR SCHOOL ASSOCIATION TO HAVE CELL TELEPHONES

Presently a day's verging on each organizations has a compelling portable sites as there is expansion in number of understudy utilizing web on their PDAs. Numerous school associations are pointing towards tending to portable needs. Understudies have so used to mobile phones that each foundation or association must offer thoughtfulness regarding address the issue of giving information access by the utilization of PDAs.

This portable framework which will be utilized by school association will help in giving individual information to the understudy. The versatile framework will utilize highlights like push notice i.e. sending notice from school server to cell framework client. Notification to the versatile framework client which will be understudies like, occasions, courses, accommodation, exam dates and so on.

III.RELATED WORK

A. WORKING OF AN EXISTING FRAMEWORK

In a large portion of the organizations passing on the message through warning is finished by customary notification board. The association's administration gets the print of the takes note. Which must be circle, then this notification is either connected to the notification load up or some peon flows the notification to every division, which requires some serious energy as well as requires labour and doing this there is no assurance of the message has been passed on effectively or not. No security of the notification are kept up. Any division can see any office's notices.

B. DRAWBACKS OF EXITING SYSTEM

The essential thought of proposed framework is as appeared in Fig.1 is the school framework model and plan which are utilizing as a part of our framework, Firstly Student needs to get register his record to this framework, with the assistance of his/her enlisted account he/she will have the capacity to recovered or get to their separate office savvy sees, here the chairman will be the one to make and post notices, all the information will be put away in the database from which understudy can get to their points of interest at whatever point need lack of respect of the spot. Every one of the notification will in push up arrangement, which will pass on the notification to however many understudies as would be prudent. There is no compelling reason to check his/her notification constantly, the notification will be pushed up to his portable.

IV.PROPOSED SYSTEM

The essential thought of proposed framework is as appeared in Fig.1 is the school framework plan which we have utilized as a part of our framework. To start with Student needs to get register his record to this school framework, with the assistance of his/her enrolled account he/she will have the capacity to recovered or get to their individual notification office insightful, here the manager will be to make and post notices, all the information will be put away in the database from which understudy can get to their private subtle elements at whatever point they need. Every one of the notification will in push up arrangement, which will pass on the notification to whatever number understudies as could reasonably be expected. Understudy won't have to check his notification constantly, the notification will be pushed up to his versatile.
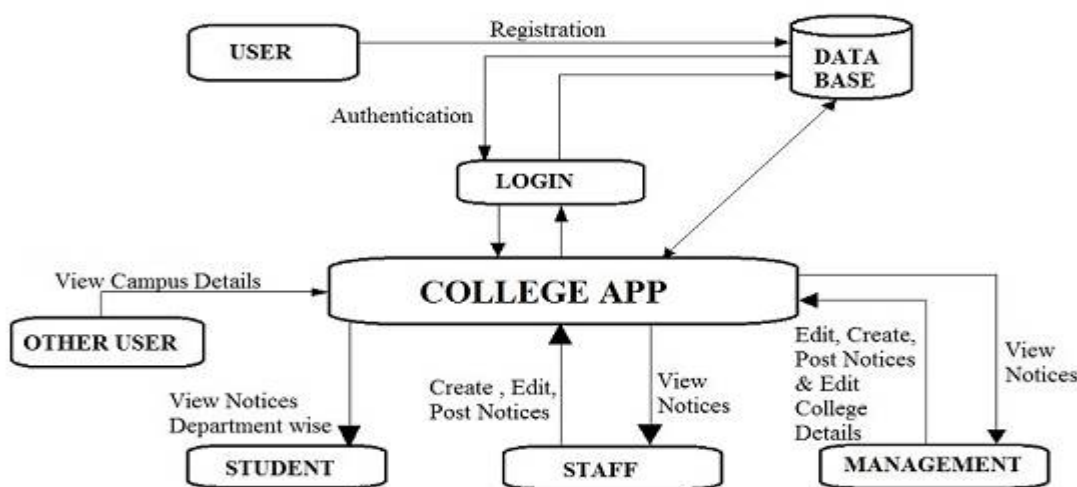

Fig1. Block Diagram

The primary reason to propose this framework is to pass on the notification to whatever number as individuals as would be prudent independent of spot and time. Notification will be given at fingertips.

Our framework will likewise help the earth by sparing such a variety of notification papers. Our framework will give attention to folks with respect to the school everyday incident. Our framework will be easier to understand than that of any web framework.

V. SYSTEM OVERVIEW

Let U be the Set of College Notification System,
U= S, T, M, NU, Srv, E, G, N, PN
Where, S, T, M, NU, Srv, E, G, N, PN are the inputs of the set.
S=Student
T=Teacher (Staff, HOD)
M=Management
NU=New User
Srv=Server
E=Encryption
G=GPS based route info
N=Notification
PN=Personalized Notification
Mathematical Model for system is,
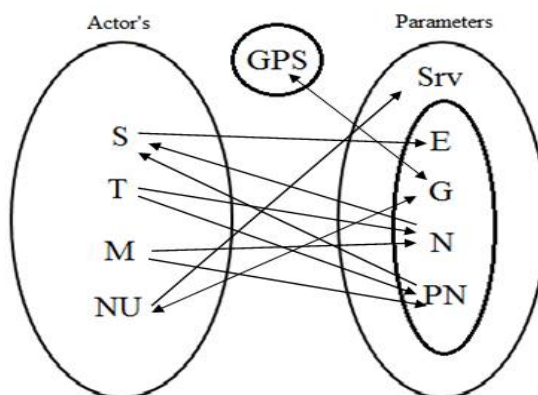
Fig2. System Overview

- Student registration is kept unique and Armstrong encryption method is applied to keep all the passwords secure.
- Teacher or management will insert notifications which could be personalized to broad cast.
- New user will have a general view of the application and can request college's route info based on GPS.

CHARACTERISTICS OF THE PROPOSED SYSTEM

1) User friendly: The system will give the user friendly experience as all notices will be at finger tips. No need to keep an eye on notice board all the time.
2) College details can be viewed easily: By the help of this system college details can be gathered easily such as its infrastructure or distance from home through GPS irresp1ective of time and place.
3) Will Save the Environment: It will help to save the Environment as there will be elimination of papers for notices, as seen lots of papers being used and wasted for preparation of various notices.
4) Computer Operator Control: Computer operator control will be used so as to eliminate the chance of any error.
5) Ability to Authenticate Student Password: When the student is going to register to the mobile system, his authentication of password will be done by ARMSTRONG NUMBER algorithm, which not give access to the

notices if it is not a valid student. This algorithm will help to provides strong security to authenticate the valid student.

VI.SECURITY ALGORITHM

Algorithm used to provide security to authenticate the right student or Staff. Is as follows:-

A. Encryption Process in Armstrong Number Algorithm: There are four steps for encryption of data in Armstrong number algorithm.

1)   Step 1: Conversion to ASCII:

2)   Step 2: Addition of Armstrong Number:

3)   Step 3: Creating two Matrices:-

4)   Step 4: Matrix Multiplication:-

We will get encrypted.

B. Decryption Process in Armstrong Number Algorithm. There are four steps for decryption of data in Armstrong number algorithm:

1)   Step 1: Take Inverse of Encoding Matrix.

2)   Step 2: Multiplication of inverse matrix and Encrypted data matrix.

3)   Step 3:- We will get the Decrypted Armstrong data.

4)   Step 4: Subtraction of Armstrong Number from Decrypted data

By this we get the original data.

VII.RESULTS

Module 1: Login and Registration page

Action	Expected Result	Actual Result
Click on application.	Application Should open Successfully.	Application gets opened successfully.
Enter Registration Details.	Entered Record Should be Submitted Successfully.	Record Submitted Successfully.

Table 1: Test case for Registration

Fig. 3: User Registration

Module 2: Add, Alter, Delete notification.

A. Add Notice

Action	Expected Result	Actual Result
Add notices.	Record should get Inserted Successfully.	Record inserted successfully.

Table 2: Test case for Add Notice

Fig 4. : Add Notice

B. Update notice

Action	Expected Result	Actual Result
Alter notices	Record should get updated Successfully.	Record updated successfully.

Table. 3: Test case for Update Notice

Fig. 5: Update Notice
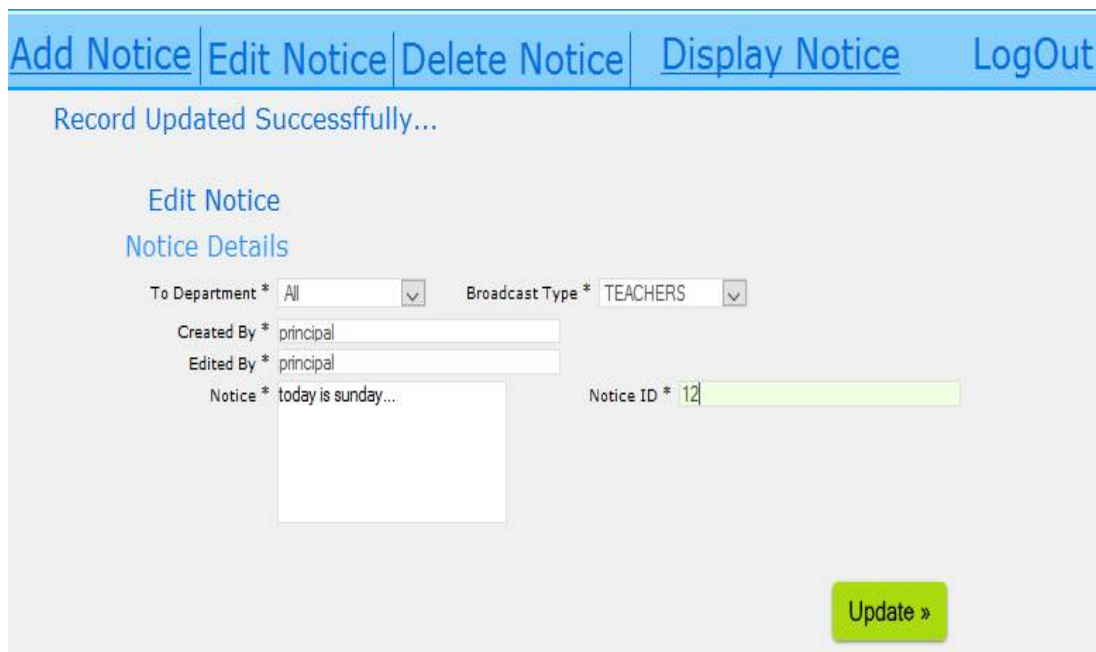
A. Delete Notice

Action	Expected Result	Actual Result
Delete notices	Record should get Deleted Successfully.	Record Deleted successfully.

Table 4: Test case for Delete Notice

Fig. 6: Delete Notice

ADVANTAGES

- College Notices will be at Finger tips.
- Parents can get the details of college day to day Happenings.
- Student who what's to get admit can perceive college details sitting at home.
- Most important it will save the Environment by saving so many Notice papers.
- Has the ability to deliver personalized information to students.
- This Native system will give more flexibility than that of any web system.

DISADVANTAGES

- Compulsory needs an android phone.
- Power failure and viruses are the inherent problem.
- Must have Internet connectivity.

VII.CONCLUSION

Thus we conclude that by accomplishment of such a system, we are going to develop a user friendly mobile system that will not only help the students but will also help the organization to operate smoothly. We are also trying to implement Student feedback without disclosing his/her details.

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