Implementation of Android Controlled Notice Board using IoT

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Abstract: **The task is an electronic notification board that is constrained by an android gadget and showcases message on it. Generally, there were notice sheets where any data or notice must be stick every day. This gets repetitive and requires day by day up keep. The undertaking conquers this issue by presenting an electronic presentation notice board interfaced to an android gadget through internet availability. The beneficiary gadget or the device gets the message from the android gadget that is sent to a smaller scale controller. The small scale controller shows the message on a computerized screen and announces the notice. This task can be utilized in universities, workplaces, railroad stations or air terminals for showing any data.**

Keywords: **Android, Arduino.**

1. Introduction

Customarily, there were notice sheets where any data or notice must be stick every day. This gets dull and requires day by day support. The target of this venture is to build up a remote notification board that showcases sees when a message is sent from the client's android application gadget. Android Controlled Notice Board is an electronic based venture. This robotized framework can lessen the manual work. The idea of this task is to plan an Internet driven programmed show board. It is proposed to structure collector cum show board which ought to be modified from an approved cell phone. This electronic framework is a mix of programming and equipment. In this paper, to plan a model messages are sent through an application from an approved transmitter and afterward message is transmitted to the microcontroller and the message is perused and sent to advanced presentation board. This project introduces an idea of reducing manpower through smart work. An IOT device bridged up with an android application to pop out with an alarm for any notice or circular or any immediate announcement to be announced. This project would be beneficial or can be greatly utilized by different schools and colleges. The device will be based on ARDUINO/Node-MC/RASPBERRY-PI programming automated sensors would be fit into it in order to receive the notification of any notice or announcement. A software of text to speech conversion would also be fastened with the device.

Now comes the point of why text to speech converter, it is because the notice or announcement would be typed or created in an android application which will be directly operable with the device. Digitized signatures of authorities would be taken there itself (approval). Two log in facilitation would be made in the application, Faculty log in and Student council log in. As soon as the notice has been created, they can forward it to the related authority for the approval and thereafter the notice can be made to announced in whatever time period we want it to be announce as there would be time facility too given for there should be no kind of disturbance should be made during the lectures.

2. Literature survey

Bluetooth based notice board is an android based application. Right now, sends the message from the android application gadget, and afterward the message is gotten and recovered by the Bluetooth gadget at the showcase unit. The Bluetooth get to secret key may be known to the client. It is at that point sent to the microcontroller that further shows the notification sent from the client on to the electronic notification board which is outfitted with a 16X2 LCD show. It utilizes a microcontroller from 8051 family.

GSM based showcase toolbox, the remote correspondence has reported its appearance on enormous stage and the world is going portable. We need to control everything. This remote of machines is conceivable through inserted frameworks. This venture plans a SMS driven programmed show toolbox which can supplant the as of now utilized programmable electronic presentation.

SMS Controlled Smart e-Notice Board, notices are displayed using GSM technology where the microcontroller used is 8051. In this, notices, can't be updated from any remote place. Yi-Jen Mon Bluetooth based led display- In this, the notices are displayed using Bluetooth technology where the board is made of seven segment display. Use of seven segment display is a tedious process. The notice can't be updated from any remote place.

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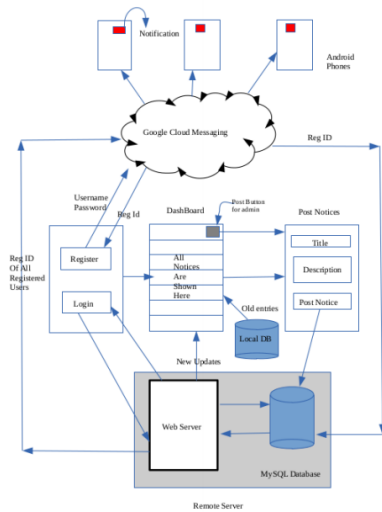www.ijresm.com | ISSN (Online): 2581-5792

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3. System design
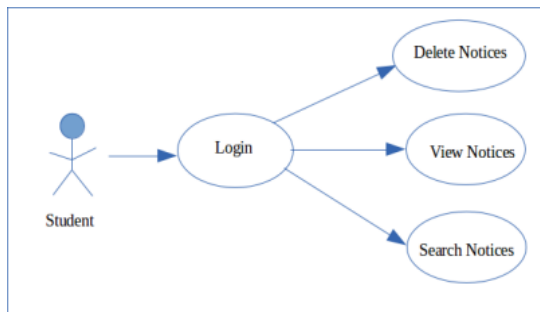

Fig. 1. UI diagram

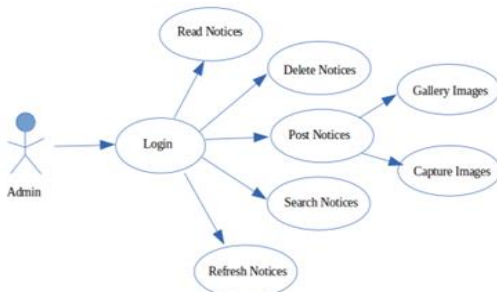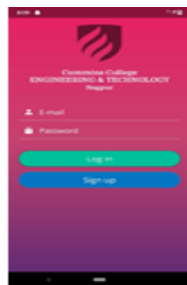Fig. 2. Usecase diagram for user

Fig. 3. Usecase diagram for admin

4. Implementation

A. Application first page

This is the page where user that means admin or student can choose to register or login.

B. Registration page

This the registration page of where student or admin will register themselves for the further procedures.
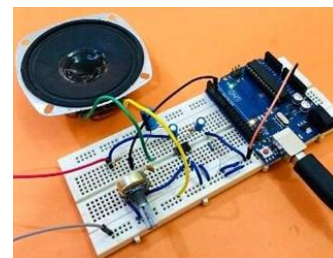
C. Login page

As soon as the user gets him/herself registered, they will login here and send the notice to everyone.

D. Inserting text or create notice

This the page of the application where the notice would be created. This notice is from admin side and same would be of student login.

5. Hardware

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The IoT device would be seen like this. This hardware part consists of Arduino UNO port, a PCB, a cable, a speaker installed with LM386 library in it to be coded for the text to speech conversion. This hardware would be linked up with the android application through Wi-Fi module.

6. Pros and Cons

It has remote application accomplished by any advanced cell or on the other hand tablets. This undertaking lessens Human work for keeping up the Notice Board. It spares the printing just as paper costs. As a result of Wi-Fi get to secret phrase might be known to the client, for example, Principal, HOD or Head Person, it is Classified and dependable. Because of the utilization of Wi-Fi framework which is the quickest utilization of web, it will give superior and it will be financially saved. The main disadvantage of this system is that it requires power supply which is absent in Traditional Notice board.

7. Conclusion

In this manner here by we reason that the propose framework expel all the disadvantages of existing framework and upgraded with the programmed web and Wi-Fi notice board framework. The proposed framework gives the computerization in all the procedures like refreshing sees from any remote spots. It gives the point by point arrangement in existing framework issue. It tends to be utilized in local, modern, official and universities. The enormous shops and the strip malls utilize computerized shows now. Likewise, in trains and transports the data like stage number, ticket data is shown in computerized load up. In future, an extra additive application can be used, regular day schedule can be organized in the application and can be announced through the device and displayed in the application itself or the projector or screen.

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