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Student And Invigilator Authentication Through Mobile Application

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***Abstract**: In present day the management of examination is done manually. The main problem with manual system is it takes more effort and physical space to keep track of paper documents like hall tickets, to find information and to keep details secure. For all the competitive examinations like JEE Mains, RBI, SBI Aadhaar Card is all set to become one of the essential identification document. The twelve digit unique identification number has been made mandatory to check fraud and impersonation. Aadhaar Card could become the base for all the key examinations in a move. Candidates will need to submit their 12-digit UID number while filling up forms. During the examination, their QR code can be collected and matched with the one stored with the Aadhaar server. It takes just a few minutes to verify whether he or she is the right candidate or not. It's easy and safe. This will avoid fake enrollment and impersonation and thus reduce malpractice.*
***Keywords**: Unique Identification Number(UID), QR Code, Aadhaar API, Aadhaar server, Fake enrollment.*

I. INTRODUCTION

The Unique ID system provides unique identification numbers to Indian residents. UID Number which would not just help the government to track down individuals, but would make life far easier for citizens as they would not have to submit multiple documents each time. Aadhaar connection has several benefits. It is expected to avoid fake enrolment, impersonation and thus reduce malpractice. It can also help to track the educational progress of students. It is expected to curb fake enrollment and impersonation and thus reduce malpractice. Taking this as a motivation we have included this functionality of Aadhaar into the field of examination. The main intention of this paper is to avoid the paper works that are used during examination that are exam forms, hall tickets etc. With this it all provides a smart attendence via the provided application.

II. PROBLEM DEFINITION

To develop platform that helps to conduct smart examination and makes invigilator to identify the legitimate student who is attending the examination with the help of Aadhaar.

A. Objective

The main objective of the paper is to digitalize the present examination system.
The counterfeit students attending the exam can be avoided by the system as the Aadhaar is to be scanned.
The system will avoid the mistakes that can be done by examiner while verifying or documenting the attendance list.

B. Aim

1) To Design and Develop:A mobile application that provides one-point student/invigilator details verification through Aadhaar number and facilitates automated conduction of examination by scanning the QR code of individual students and display the attended student names.

III. LITERATURE SURVEY

Manual systems are more complicated. When mistakes are made or changes or corrections are needed, often a manual transaction must be completely redone rather than just updated. With manual or partially automated systems information often has to be written down and copied or entered more than once.
Aadhaar is the world's largest biometric ID system. The UIDAI is mandated to assign a 12-digit unique identification (UID) number to all residents of India. The government plans to widen the scope of Aadhaar (UID) authentication. Moreover these cards can't be duplicated because of biometrics. Now we can use a Unique Identification Number (UID) where it contains candidate information.

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It's easy and safe and it reduces a paper and verification work for an examiner. During the exam, through a biometric attendance system, their QR code can be collected and matched with the one stored with the Aadhaar server.

A. Existing System

In existing system of examination , all works are done manually. There are chances of committing errors. And it will take more time to perform any transaction. There are so many limitations in the existing system. There is wastage of paper too. The chance of loss of records is high and also record searching is difficult. And filtering of records is also not easy.

B. Proposed System

We present a secure exam management system where all students related information is in digital format. Aadhaar Card could become the base for all the key examinations in a move. It takes just a few minutes to verify whether he or she is the right candidate or not. It's easy and safe and it reduces a paper and verification work for an examiner.

IV. SYSTEM REQUIREMENT SPECIFICATION

A. Functional Requirements
1) The unique 12-digit ID of Aadhaar is required for registration and verification of student
2) The user must scan his/her Aadhaar card and apply for the exam.
3) The user must provide original Aadhaar card during exam.

B. Software Requirements
1) Web Browser (Google Chrome / Mozilla Firefox).
2) Android Studio.
3) Database Server (MySQL).
4) Operating System(Windows OS)

C. Hardware Requirements
1) A android phone.
2) A computer with the following specification
   Main Processor: PENTIUM III

   > Processor Speed: 800 MHz
   > RAM size: 128MB DDR
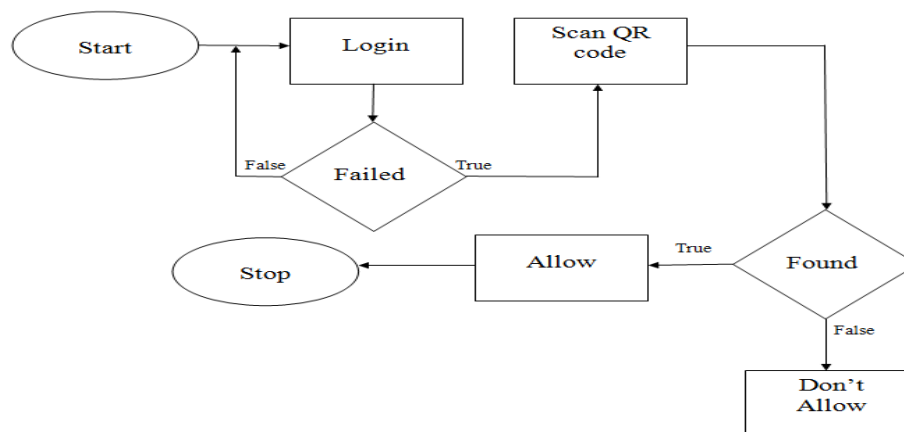   > Keyboard: Standard qwerty serial or PS/2 keyboard
   > Mouse: Standard serial or PS/2 mouse
   > Compatibility: AT/T compatible
   > Cache memory: 256 KB

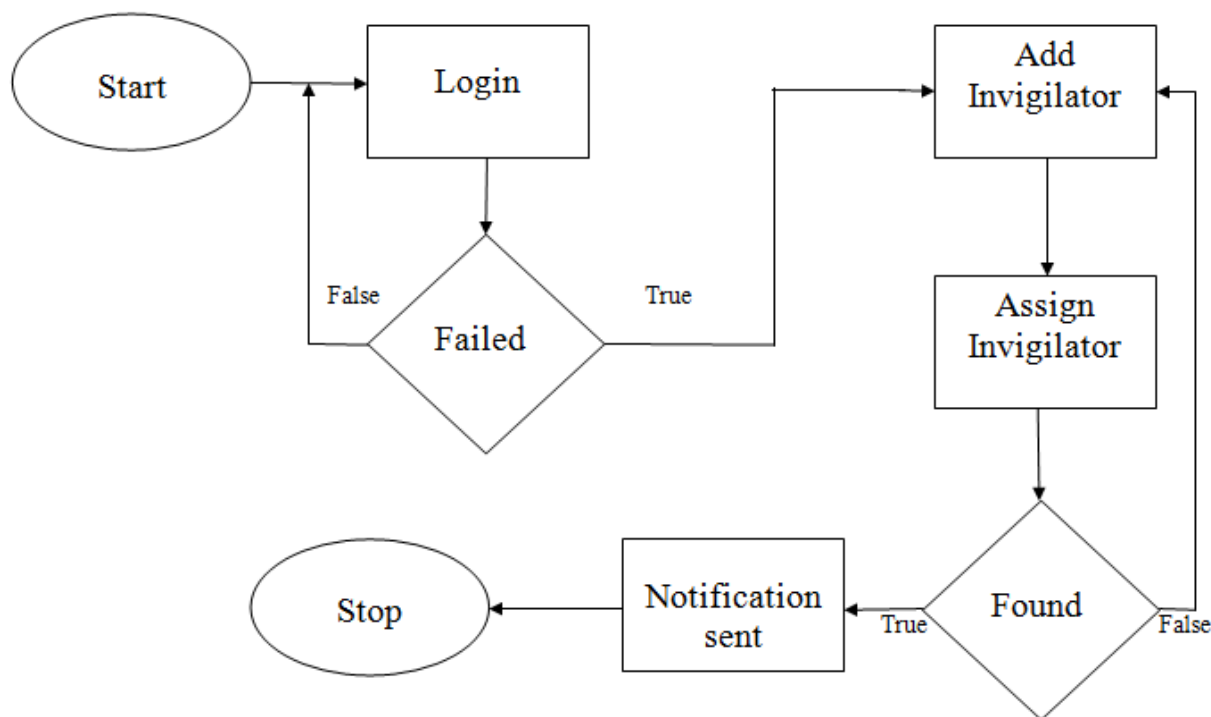## V. SYSTEM DESIGN AND IMPLEMENTATION

A. Application flow diagram

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The application service flow diagram depicts the activities performed by the user/student. The student should mainly carry their Aadhaar card while attending the exam. The assisgned invigilator login into the app and scans all the aadhaar QR code. As sson as he sana a aadhaar the same will be matcehed with the register number if it matches the sudent is allowed or else the student is detained. With this the attendance if the present student is also taken.

B. Background service flow diagram

The main task of the admin with respect to examination is to assisgn invigilator to the particular exam. Whenever a invigilator is assisgned from a list of invigilators which already exists to a examination the invigilator gets a notification message which has a unique ID and the details of the examination. The invigilator will have to login using the unique ID given only.
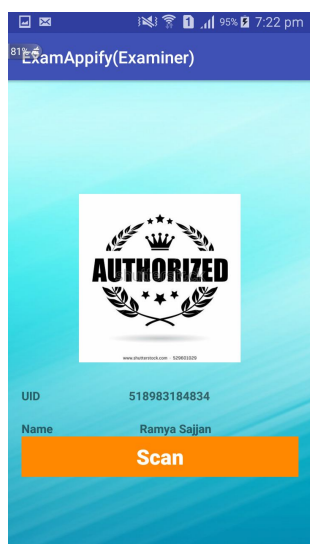
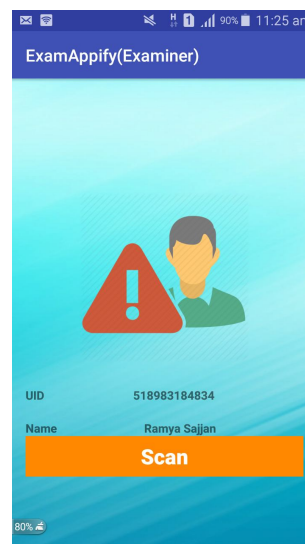## VI. RESULTS AND SNAPSHOT

Fig. 1 authorized student

Fig. 2 Unauthorized student

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Fig. 1 represents if the student attending the exam is the one who has actually registered for the examination then he/she is a authorized student. Fig. 2 if the student has not registered for the exam but is attending it, as soon as the Aadhaar card of that student is scanned it automatically show as unauthorized student.
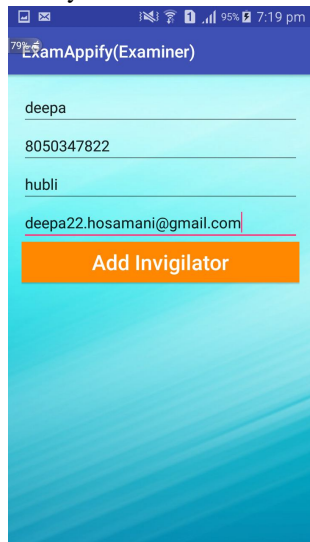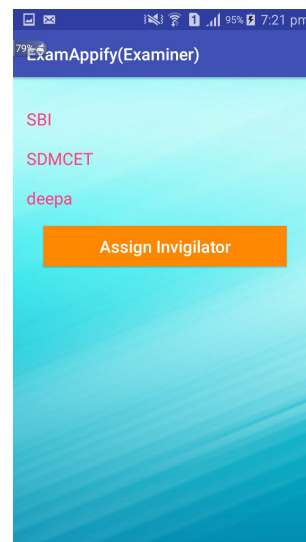

Fig. 3 Adding invigilator

Fig. 4 Assisning invigilator

The main task of the admin is to add the invigilator and assisgn the invigilator to the respective exams. Fig. 3 illustrates adding a new invigilator with his/her details. Fig. 4 illustrates assisgning invigilator to the particular exam.

VII. CONCLUSIONS

This App will provide the institutions to conduct higher exam in a more secure and smart way. This will help in Verification of Students. Database has information about Faculties and students including Aadhaar. With the help of these, during the examination the invigilator can avoid all verification paper work by just logging in and scanning the QR code of the student aadhaar and matching the same with the already existing number that has been provided while registering for exam.

VIII. ACKNOWLEDGMENT

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