FRAMEWORK FOR ONLINE EXAM WITH GRAPHICAL RESULT AND SMS GATEWAY

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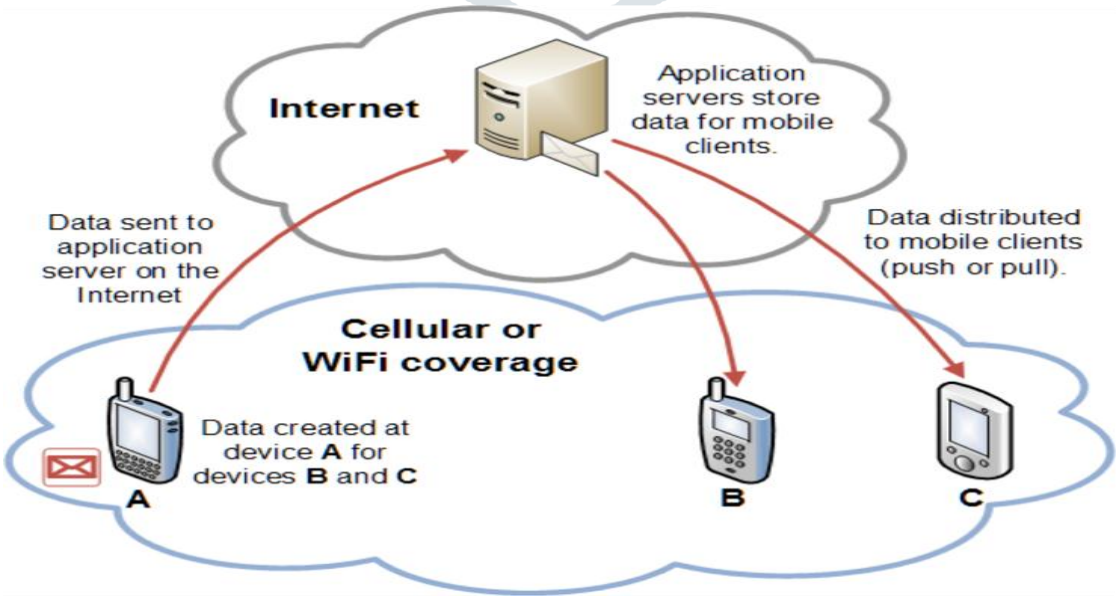
Abstract: The Online Exam is a practice test, which is commonly available to higher education students. Questions are created closely, competitively, and collaboratively for students thus reducing the load for a teacher and promoting interactions among students and between the teachers. The online exam will be able to test your knowledge and intelligence on many aptitudes and technical interview related topics to see how smart you are and assesses your performance which helps you to analyze your strong and weak areas. The message integration in this application will enable the student to get an immediate message on his exam performance. This system can be used for placements as many people can take the exam simultaneously through their phones even if not many systems are available to work on. Mobile is a device that has reached all the people; it has become a daily part of people. In this project we are trying to develop an application that a users' mobile run for quiz competition by using a technology Wi-Fi to communicate with the server. The security of this online examination is enhanced by including fingerprint reader along with web cameras which will identify the user. The Server displays the list of questions with four options to be answered by the participants. Before they compete they have a log into the server by using username and password provided to them, each user first has to be registered in the server to use the application. After Log in each user will be displayed with the questions in their mobile phone where he can move through each question one by one. The answers are uploaded to the server through the wireless communication medium Wi-Fi. So sitting at the server, the admin can evaluate the result. The whole system is automated such that the user gets the result as he finished the competition. Since the use of Wi-Fi the communication range is more compared to Bluetooth so the competition can be conducted all over the campus.

INTRODUCTION

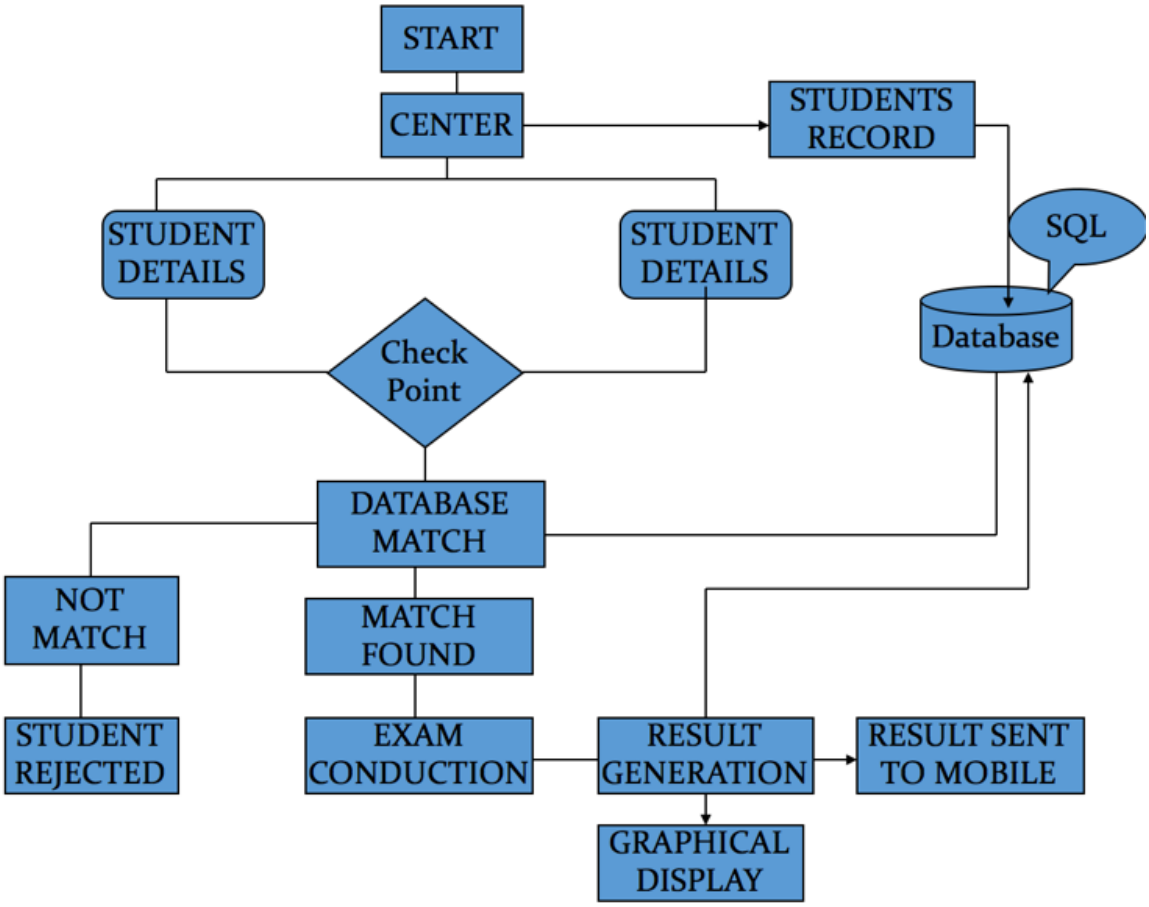
The online exam will be able to test the knowledge and intelligence of an individual on various technical and aptitude interview related topics to see how smart you are and assesses your performance which helps you to analyze your strong and weak areas. The current procedure relies on a manual multistep delivery system of paper instruments for dissemination. Security is also an important issue in the online examination system. Using the SMS gateway for examination result is also a feature. The use of service with this available system is not easy. The current methodologies used to facilitate the manual multistep delivery mechanism and are falling short of expectations. Our motivation throughout this project has been to tackle these before mentioned drawbacks in such a way that not only provides a one-tap solution to the present techniques but also introduces a new technology that can be seen in the present industry as a revolution. Online Exams are already in play in the market but is not used much. By introducing this application as a security update to the current security problems. To build an Application that enhances the way we take Online exams on a mobile device and to skip the unnecessary hassle in the manual system. Security is the main concern which can be overcome using fingerprint reader and web camera. The project must be affordable, quick and highly efficient in its operation. To build an Application that enhances the way we take Online exams on a mobile device and to skip the unnecessary hassle in the manual system. Security is the main concern which can be overcome using fingerprint reader and web camera.

SYSTEM MODEL



The procedure is simple, begins with a simple login page, by which the user will be authenticated and at the same time fingerprint is also taken after which the webcam takes a picture instantly, hence by this the user is authenticated or he can't take the exam now, in which there are multiple choice questions which are needed to be answered in a provided time frame after which the question will be skipped and the questions are provided randomly to avoid cheating. Now after the exam is over and the answers after submitted you will get instant result along with a graphical overview of the whole paper. Now there will be another option through which the result can be sent through SMS using SMS gateway. These results are then saved in the database and hence can be used to retrieve data as and when required. Hence providing the maximum security and helping with the best supervision of the exam for teachers and increasing the student's ability by testing their skills.

Activity Diagram



Server and Database

Here the server used is both server side and client side in which the information is transferred from both the sides and the server is the place from where the exam is provided to the students by supplying questions, the exam can be controlled and be monitored by the teacher or the invigilator. In the server sits the SMS gateway which helps the student by providing the result through an SMS. The data received through the is stored in the SQL Database which is stored against the student records and can be retrieved by the wish of the user. The interaction of both the students and teacher is with the server and access to the database. Where the student can access their data through a simple login page.

Subsystems

Wi-Fi – Wifi technology is used to connect a high number of devices over a large area as well as it can be connected to the server and can be readily extended to a wireless network.

Fingerprint Analysis – To authenticate the correct user by recording their fingerprints through the device and this is an enhanced security measure as fingerprints of different human beings cannot match.

Web Camera – It can be used to side fingerprint reader as additional security as it can take a photo of the user instantly after the fingerprint is recorded.

SQL or Parse Cloud Database – A database to save all the user information and the data recorded during the exam session over a local database or cloud-based database.

Proposed Work

The proposed system works through Wi-Fi, sever-client side technology, database and fingerprint reader along with webcam for user authentication. The user is identified using fingerprint analysis and webcam and is checked through the information present in the database. The user then connects their mobile phones or PC to the Wi-Fi network which is connected to the server and database and the exam is conducted and each question has a specific time in which it should be answered. After the exam, the result is displayed in a graphical form and the result can be sent through SMS gateway. During the exam if the student has some problem, feedback can be sent using phone gesture recognition.

User module:

In User module, each user should have an account in order to access or search the details. Otherwise, they cannot access the details of the server or the cloud. Each user is provided with the id and password for authentication of the user to access the server or the cloud. If the user is accessing for the first time user has to get register first by filling the registration form.

System module:

The system module is based on Ajax for client-server interaction where the server can be local or cloud based. The system module will help in gaining proper control over the provided server by the users and hence making it easy for everyone and providing a user-friendly interface.

Conclusion and Future work

The Online Test System is developed using. NET and SQL fully meets the objectives of the system for which it has been developed. The system is being operated at a great efficiency and all the teachers and user associated with the system will understand its advantage. The system solves the problem with increased security. It was intended to solve as requirement specification. We can extend this application to perform Mobile polling to get the opinion of the people for a particular social problem. Since this provides an improved and a more enhanced way of handling the problem it can be used in the schools and in colleges to provide any kind of competition or to get the feedback of the student regarding the lecture. In fact, we can even add a possible layer of security using the two-factor authentication method.

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