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E - Exam for Virtually Impair People

Dr.W.Gracy Theresa[1], Lithesvar C[2], Pradeep A[3], Kumaran S.G[4]

Assistant Professor, Department of Computer Science and Engineering, Panimalar Institute of Technology,

Tamilnadu, India [1]

Student, Department of Computer Science and Engineering, Panimalar Institute of Technology, Tamilnadu, India[2,3,4]

ABSTRACT: In today's advanced hi-tech world, the need of independent living is recognized in case of visually impaired people who are facing main problem of social restrictiveness. They suffer in strange surroundings without any manual aid. Visual information is the basis for most tasks, so visually impaired people are at disadvantage because necessary information about the surrounding environment is not available, With the recent advances in inclusive technology, it is possible to extend the support given to people with visual impairment. This project is proposed to help those people who are blind or visually impairedBlind required specific assistance for addressing their class exams, certification exams etc.. Additional human or exams developed specifically for blind needs to be provided for them. Even though, these helps provide them to address their exams, they still do not enjoy the benefit of latest technologies. They are in need of third person assistance. Hence to make them feel independent, we use the latest technologies such as Android / Google Voice Synthesizer , Google Text to Speech assistant and develop smart android application – Certification exam android App for Blind. With this app they do not need any third person assistance. They can feel independent and address their exams very conveniently.

I. INTRODUCTION

The growth of the Internet, and in particular the Web, is already influence the way science is taught and will undoubtedly do so to greater extent in the future. In areas of education it offers a medium that has the potential to be more responsive to students. Web based Examination system could be used via Internet or intranet for managing student examination. In the future blind peoples also can do online exam like a normal human if Test can be taken using an Android Application, Here Questions & choice are through in Voice our project is delivered in real time. Marking the test is done automatically and instantaneously; the faculty is comforted from these, time consuming duties. Different versions of the same question can be generated for different students. Tests can be taken anytime. Tests can be taken anywhere. Blinds can login the exam using their Application. The Answer will be get from the user through voice. The results also delivered through voice. The marks are automatically collected, analyzed, and distributed for purposes like evaluation of teaching and learning process. In this world blind peoples can get the knowledge using various interfaces. Such as one common method of the blind people has been intended to use is by voice recognition.
For example in Android Phone there is a facility which allows a blind people to get interact with that App as a normal man. If they touch any button or the display option in the Phone has been designed to react as soon as by giving voice output. So a visor people can use all the facility provided in that Android phone (they are able to access all the options like a normal man).

II. EXISTING SYSTEM

The blind people who want to take the examination require a writer. The writer writes the answers which the blind dictate them. The traditional way for conducting examination for the blind people requires scribe/writer. These candidates face difficulties in using the scribes for examinations. It is hard for them to dictate the answers to the scribes. Because, the scribes might be of lower qualification hence they cannot interpret their words and write them down as they are.

The examination system for blinds allows volunteers to write exams on behalf of blind candidates. Finding a responsible person to do the writing for them in the examination hall is no less a source of tension for blind students than the problems created by their disability. Lack of writers is particular tender for blind students studying for advanced degrees in universities.

2.1DISADVANTAGES OF EXISTING SYSTEM:
1.Time delay.
2. Not accurate.
3. Manual process need to be monitored.

4. Blind students cannot access independently, rely on others

2.2 PROPOSED SYSTEM:

This project proposes a system that will create a revolution in a world of education by providing an easier way for visually impaired people to take tests just as normal students do. Rapidly growing population and increasing number of people with blindness along with other disabilities need for use of technology in the field of education has become imminent. With existing system of competitive examination, students face problems while interacting with the system, misunderstandings arising due to human mediator and also an ability to cope-up with the other students. Our project, Android App through the use of speech technology, attempts to provide solutions for some of these issues by creating an interactive system. Thus, the application will help in creating an environment that provides equal opportunities for all the students in taking up competitive exams. This will improve the current educational system for blinds career.

Android Phone there is a facility which allows a blind people to get interacts with that App as a normal man. If they touch any button or the display option in the Phone has been designed to react as soon as by giving voice output. So a visor people can use all the facility provided in that Android phone (they are able to access all the options like a normal man).

2.2.1 ADVANTAGES OF PROPOSED SYSTEM:

They can easily give the answer by voice without any confusion.

It reduced candidate depressing. The proposed system is user Friendly.

There is no any need to give the input as manually.

The blind peoples also can do quiz exam like a normal human if Test can be taken using an Android Application, Here Questions & choice are through in Voice our project is delivered in real time.

Blinds can login the exam using their Application. The Answer will be get from the user through voice. The results also delivered through voice. The marks are automatically collected, analyzed, and distributed for purposes like evaluation of teaching and learning process.

III. MODULE DESCRIPTION

3.1 Admin Module

Admin will upload the questions and answer options using this module. This will call webservice and store data in Database.

3.2 User Module

Blind user will access the application through their voice. Once user logs in, questions will be voiced to user. Later the user can answer the question on their voice. Application will recognize the answer and move forward to next question.
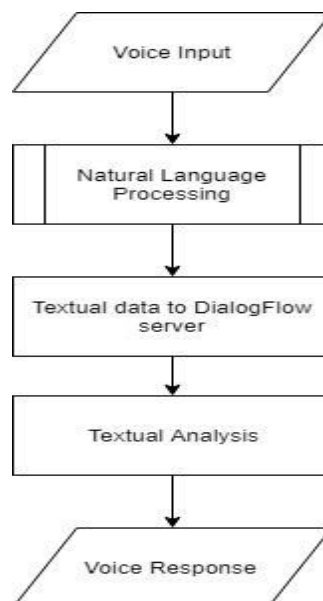

Fig 3.2 Flow Diagram

3.3 WebService Module

Webservice Module will be used to store and retrieve question and answers from/to database.

3.4 Speech Recognizer and Text to Speech

Google Speech Recognizer and Text To Speech technologies will be used in the application to voice question and recognize user's answer.
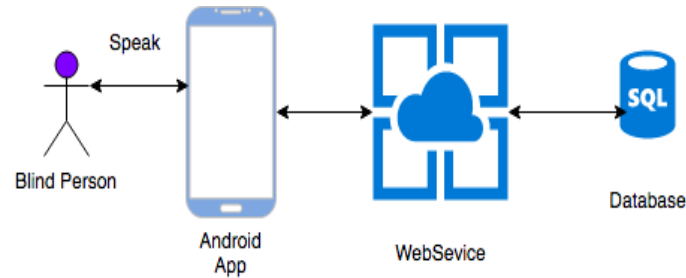

Fig3.4Architecture diagram

3.5 Answer Validation Module

Once the user completes all questions, the answers will be validated and exam result will be published to user.

IV. HARDWARE REQUIREMENT

1. Desktop / Laptop 3GB RAM
2. Keyboard
3. Mouse
4. Windows 7 +
5. Android Phone

V. SOFTWARE REQUIREMENTS

1   Java
2   Android
3   Android Studio

VI. SYSTEM DESIGN

The project is a window application in .NET that can be usedtoconduct examination for physically challenged. The project hasmainly used following techniques:
• Speech synthesis
• Speech recognition
Speech synthesis is a technology used to output voice whengiven text as an input. Sometimes also known as text to speechconversion.
Speech recognition is a technology used to output some text oran event when given speech as an input. Sometimes also knownas speech to text conversion.
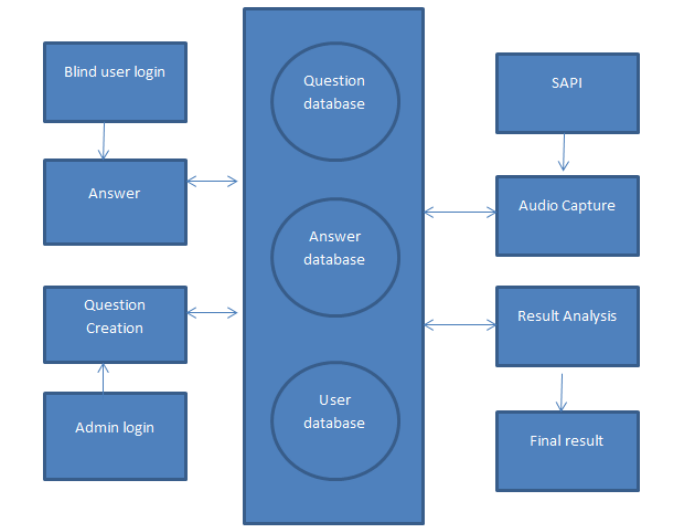
Fig 6.1 Block Diagram

6.2 SYSTEM IMPLEMENTATION
6.2.1 Register

The very first module is registration module. In this module the visually impaired person or the blind person should register before starting exam. The details required are to be filled by a third person or a coordinator appointed .After all the details are filled properly a registration id will be provided to the examinee .The examinee can use this registration id to login and give exam.
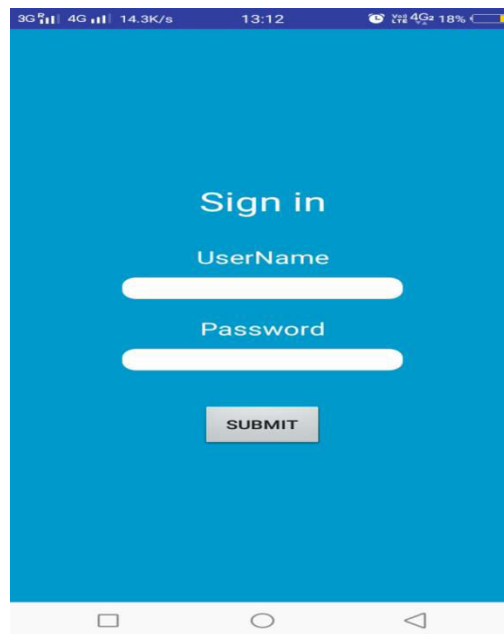

Fig 6.2.1Register

6.2.2 Exam Administration

Admin can feed different types of questions on variety of subjects into the centralized database and also with number of options for each question. These questions will be fetched one by one in random order. Only admin has the rights to store and modify the question bank to the centralized database. These rights can be given to admin by providing secure login.

A. For the Blinds

Tests can be taken anytime. Tests can be taken anywhere.Questions canbe attempted in a stress-less environment [1]. Test can be takenusing a simple Mobile phones, Here Questions and optionsare throughvoice[2].The Answer also can be submitted by theuser through voice. The results are also delivered through voice.

B. For the Administration

The marks are automatically collected, analyzed, anddisseminated for purposes like evaluation of teaching andlearning process.
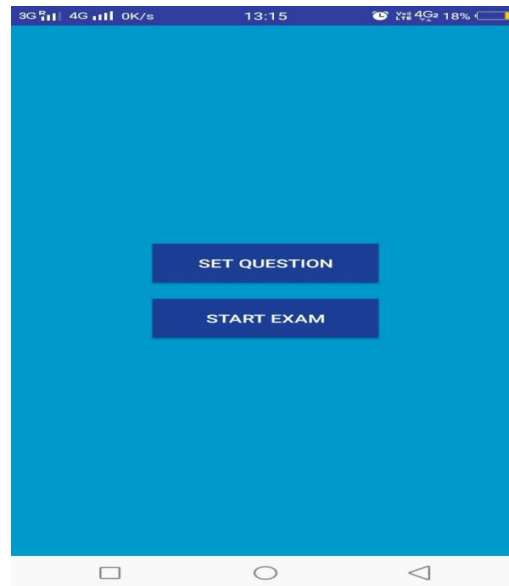

Fig 6.2.2 Exam Administration

6.2.3 Textual Input

Choosing the answer for objective type question by visually impaired students is done via voice commands using Android App.

If the user voice is not audible again the question will be read out then after receiving user voice command the option will be selected and moves to next part of the question and this process will goes on.
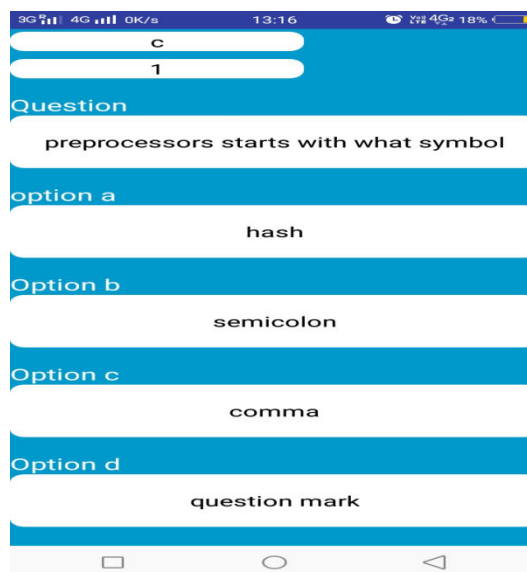

Fig 6.2.3 Textual Input

6.2.4 Auto Grading

The system compares the student answers with the correct answers, which were entered by the instructors.
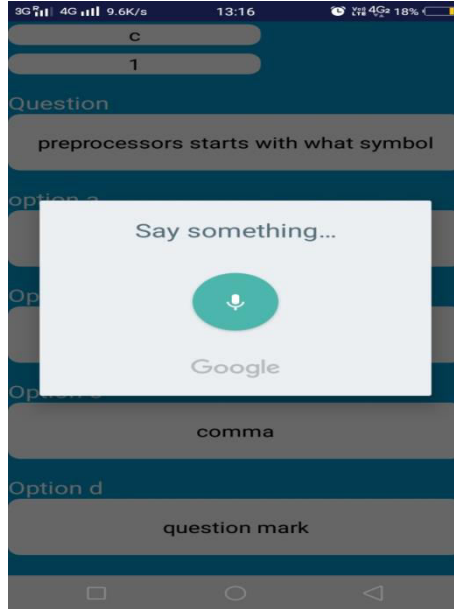

Fig 6.2.4 Auto Grading

6.2.5 Result

The Android app immediately displays and result reflecting the performance of the candidate as soon as the test is over.
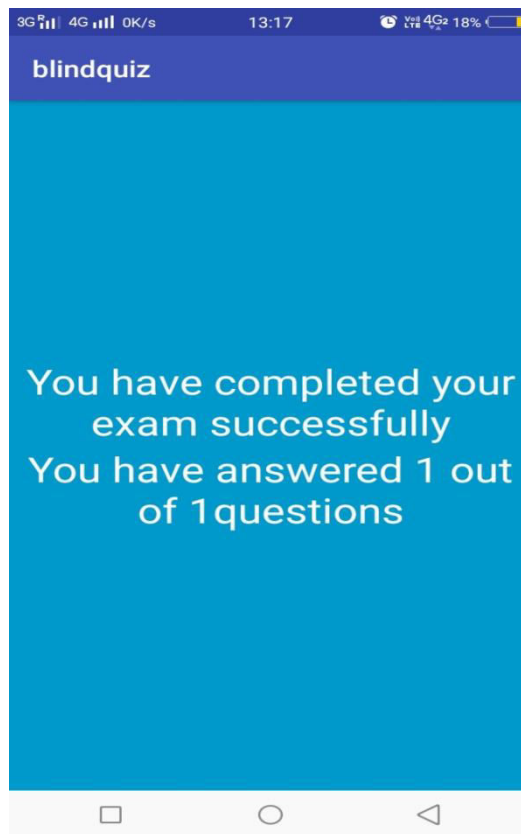

Fig 6.2.5 Result

VII. CONCLUSION

This project would be a very useful one for every blind people and physically challenged to admire their talent easily through Quiz app like other humans. In our project we will be going to deliver an entire application for physically challenged people which can provide an interactive interface. Examinee can easily give exam by giving easy voice commands. Thus, physically challenged people can easily give exam like a common man without much difficulty. Through this they have been able to attend many exams in the future and also we will try to do as much as improvement in future as per the collection of feedback.

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