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### **RESEARCH ARTICLE**



# An Efficient Examination System for Blinds with Real Time Voice Interface

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*Abstract— Examinations are the basic building block for academic progress. Person gets promoted to higher level or completes a course once they complete some tests. 80% of competitive examinations in India are of objective type. They generally contain 4 or 5 optional questions. Reading questions during examinations are really tough for the blind or semi blind people due to their limited visibility. Being software engineers we hold responsibility to help those people. I propose to develop a complete system which solves all these problems in real time by reading questions written in during examination. Even it reads the objective answers. Audio can be listened for headphone. We used SAPI tool inbuilt with the VB to convert text to audio. The system will be verified for its efficiency in real time. Even for future enhancement we have ideas to add voice commands activated like “read again”, “next page”, ‘end’ etc. We hope our system provide the blind people efficiency to tackle their examination related problems in real time.*

*Index Term— Blind people, Finger Print Device, Earphone*

## 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 a simple user computer, a finger print device for login, keyboard and the minimal condition is just a Web browser, 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 finger verification. 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 have been intended to use is by voice recognition, that is which has a voice recording

system. Where the files had recorded already in certain format, the blind people should be supposed to hear the recorded content in that recording system based on this way they can easily know the content and learn in a preferred way and also they can interact with that system by giving their voice as an input. These common procedures have been used for the blind people to expose their talent in various platforms and to get compete with normal people through the help of many devices. For example in iPhone there is a facility which allows a blind people to get interact with that device as a normal man. If they touch any button or the display option in the iPhone has been designed to react as soon as by giving voice output. So a visor people can use all the facility provided in that phone (they are able to access all the options like a normal man browsing, chatting, SMS, Music, streaming.....etc.).

## II. EXISTING SYSTEM

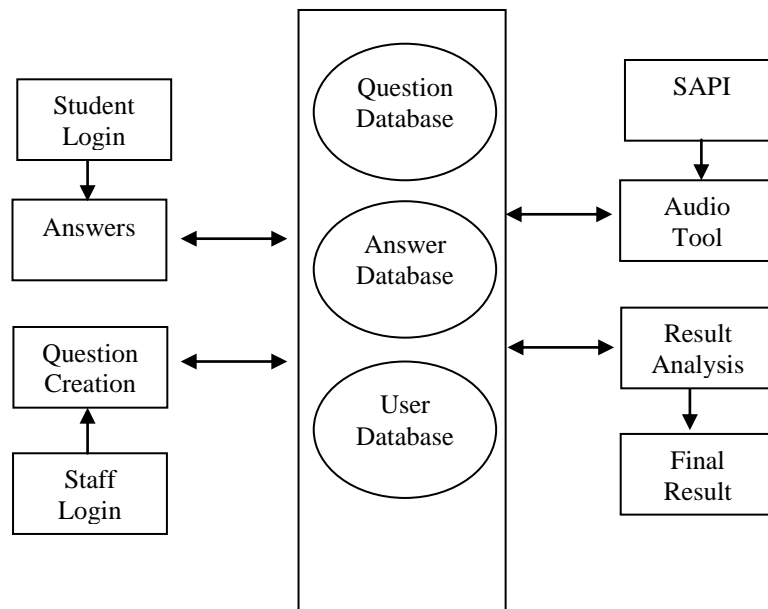
The examination system for blinds allows volunteers to write exams on behalf of blind candidates. Finding a responsible person to do the writing for them in the examination hall is no less a source of tension for blind students than the problems created by their disability. Lack of writers is particular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

## III. PROPOSED SYSTEM

Our system is a complete solution for examination system of blinds . Even it reads the objective answers. Audio can be listened for headphone. As a modification I reduced the number of switches for selection by continuous audio repetition till answer gets selected. Suppose we have additional switches to verify the answers then it can create unnecessary confusion. We used SAPI tool inbuilt with the Windows OS to convert text to audio. The system will be verified for its efficiency in real time.

Even for future enhancement we have ideas to add voice commands activated like “read again”, “next page”, ‘end’ etc. We hope our system provide the blind people efficiency to tackle their examination related problems in real time

## IV. ARCHITECTURE DIAGRAM



## V. ARCHITECTURE DETAIL

### Database Tier

Here data are stored as records in tables on the server side database.

### **Exam system data**

This contains all question information; all answer information, all courses information and courses ILO'S, these data are explained as follows:

### **Registration Data**

This data have all the finger prints of the registered candidates.

### **Question data**

This consists of data records about questions such as query section, and query type.

### **Answer data module**

This consists of data records about question and its answers such as question number, question type, and the student answer.

### **Course and Courses ILOS**

It consists of data about courses such as courses name, courses explanation, courses term and course Intended Learning Outcomes.

### **Login data**

This contains all setup information data, all blind candidates with associated finger prints data. These data's are explained as follows:

### **Setup information**

This consists of data records about system setup such as admin information.

### **Blind candidate's data**

This consists of data records about blinds such as finger prints to verify blind Id, blind username, and blind password.

### **Address data**

This consists of data records about area such as Village name, and district name, blind's guardian address.

### **Exam Preparation:**

It is used to manage and handle the course questions, exams. It also contains the logic behind instructor-course relation, instructor-term relation, course-term relation and the report behind these relations. This logic used to handle all the information stored in the database about course-instructor relation, instructor-exam relation. A detail of that logic is described as follows:

### **Add questions:**

The instructor first could insert all the questions.

### **Create exam:**

The instructor could create exam by selecting the questions that added before.

### **Update exam:**

The instructor could update the exam that made before.

### **Setting up and monitoring the system:**

It is used to set and handle the candidate information which is detailed as follows: The admin login, he can insert or update applicant information. There are some scenarios for that event. The admin login and he can insert or update instructor information he can check for the instructor first if the instructor does not exist the administrator can create new instructor record by adding instructor data.

### **Examination engine:**

Examination Engine contains the logic used by the candidate to take exam and shows the results after they stop it. This logic is described as follows: The systems first match the fingers prints and verify the candidate details who have previously register.

### **ADVANTAGE**

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.

## **VI. CONCLUSION**

This project would be a very useful one for every blind people to admire their talent easily through online exam like other humans. Our system is efficient enough to provide the ability to blind people to overcome their inability using Dot Net Coding. In

future we will try to do as much as improvement in future as per the collection of feedback. Through this they have been able to attend many exams in the future.

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