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Survey on Voice Based Application as Medicine Spotter For Visually Impaired

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ABSTRACT: This paper proffers an application all together to facilitate simple and natural approach to discover the solution for the outwardly hindered individuals and to take it as indicated by their Doctor's medicine. Outwardly impeded individuals require not be needy also, look for others help to observe the pharmaceutical to be taken. This android application is utilized to conquer the troubles they confront in this situation. In this application, an update is set which tells the client when to take the medications, as voice yield. The photos of the solution strip held in the hand are caught by the inbuilt camera of the versatile. The picture is prepared and therefore content confinement and extraction is finished by which the name of the solution is distinguished. A spotter area is additionally united with this application which checks the solution which has been as of now transferred in the client's versatile, contrasts and the name of the prescription distinguished and if the prescription must be taken at that time, at that point it tells the quantity of prescription to be taken to the client as voice yield. On getting the voice yield from the versatile, the client admissions their solutions as indicated by their medicine. It can likewise be valuable for uneducated individuals who endure to discover which drug must be taken. Particularly senior individuals who are not taught generally endure to peruse their solution names all alone. This thought would accomplish great outcomes in hone

KEYWORDS: visually impaired, medicine identification, Text localization and Extraction, SQLite.

I. INTRODUCTION

Outwardly tested individuals and uneducated individuals confront a considerable measure of unfriendly difficulties in their everyday life. More often than not they are puzzled in another condition or encompassing because of issues identified with availability. Along these lines, this keeps them from encountering the world similarly as others do. Distinguishing and getting to things is something a considerable lot of us may underestimate it. Be that as it may, the outwardly tested individuals are controlled by their handicap. Particularly in a solution taking situation, it is troublesome for them to discover whether they have distinguished the pharmaceutical effectively or not. They should look for others help for it. In addition a versatile application will be anything but difficult to utilize and the equipment required is extremely constrained. In this paper we propose a picture handling based android portable application that gives start to finish direction and help to the outwardly debilitated client for taking their solutions. All through the procedure the client is guided utilizing the voice yield as opposed to content. The Android stage has been utilized to assemble this application for the most part in light of its wide notoriety and cost viability in the PDA showcase. Android stage has Comprehensive libraries for picture preparing, SQLite for encouraging information stockpiling and great equipment highlights for video or picture top true. Likewise it is accessible on cell phones from different producers, from Sony Ericsson, Motorola, and HTC to Samsung. There are 3 fundamental modules into which the application has been part up as update, recognizing the medication by name perusing and voice yield.

1.1 QR Code Features

The QR code was created for the Japanese car industry by Denso Wave1 partnership in 1994. The most critical qualities of this code are little printout estimate and rapid perusing process. The accreditation of QR code was



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performed by International Organization of Standardization (ISO), and its entire particular can be found in [3]. A QR code encodes the data into parallel shape. Each data bit is spoken to by a dark or a white module. The Reed-Solomon blunder revision code [5] is utilized for information encryption. Accordingly, one of 4 mistake revision levels needs to be picked amid QR code era. The most reduced level can re-establish almost 7% of harmed data, the most elevated amount can re-establish.

1.2 Rich Graphical Codes:

In order to improve the graphical code properties, several rich graphical codes have recently been introduced. These rich graphical codes aim to add visual significance, to personalize the stored information or to increase the storage capacities. In this section, the different kinds of rich QR codes and several interesting rich graphical codes are presented. The most simple type of rich QR codes is the user-friendly QR code. The target of these codes is to improve the aesthetic view of QR codes. It consists of changing the colours and shape of the modules, or of adding an image into the QR code. Different design QR code generators are proposed as free or paid applications.² However, most of these generators prefer to sacrifice the possibility of error correction for attractive design. Recently, the rich QR code, which adds the significance without losing error correction capacity, was introduced in [4].

1.3 P&S Process Impact:

Any QR code creation suggests a printing procedure and a checking process. The P&S procedure in verification situations are considered as a physical unclonable capacity [7]. The finished examples, that we propose to use in 2LQR code, are touchy to the P&S procedure. In this area, the progressions included amid the P&S procedure are talked about, keeping in mind the end goal to get it why the yield pictures experience the ill effects of this procedure. The P&S procedure produces obvious and undetectable picture alterations, which can be caused by resampling intrinsic to the P&S procedure, inhomogeneous lighting conditions, ink scattering, fluctuating paces of the filtering gadget [5]. The changes gave by the printer are not detachable from changes included by the scanner, that is the reason the bends have a place with them two [7].

II. RELATED WORK

Chucaí Yi, Student Member, IEEE, 2013[1] in the work proposed a camera-based assistive content perusing structure to enable visually impaired people to peruse content names and item bundling from hand-held questions in their day by day lives. This paper proposes a Gaussian based approach in which at first the question of intrigue is distinguished, trailed by locale of intrigue ID and performing different picture preparing operations on the recognized picture to recover the coveted content. Here the question from which the content is to be extricated is isolated[3][4] from the foundation by shaking the question utilizing movement based protest identification. The caught arrangement of edges is examined to discover the frontal area question took after by applying mean of the assessed closer view veils. At that point the district of intrigue is discovered where the content is confined in light of edge or textural properties lastly the coveted content is extracted[5]. Be that as it may, the above paper has few an impersonations since it utilizes a different framework for preparing, a wearable camera and a Bluetooth earpiece which expands the equipment usage K. Matusiak, Lodz University of Technology, IEEE 2013[2], in hello there s work he portrays fundamental highlights of programming modules created for Android advanced mobile phones that are committed for the outwardly weakened clients. The fundamental module can perceive and coordinate examined articles to a database of items, e.g. sustenance or pharmaceutical holders. The two different modules are fit for distinguishing real hues and find course of the most extreme shine locales in the caught scenes however it simply helps in protest acknowledgment by coordinating articles with database objects, other openness or correspondence issues are not tended to. There are many applications accessible in the market starting at now. Recognizer created by LookTel[16] is a business application committed for iPhones that should perceive a protest inside the camera field of view that was beforehand put away in a nearby database of question's pictures. Here and Now[20], an iPhone application that uses the camera of the iPhone to recover item data.

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III.SYSTEM ARCHITECTURE

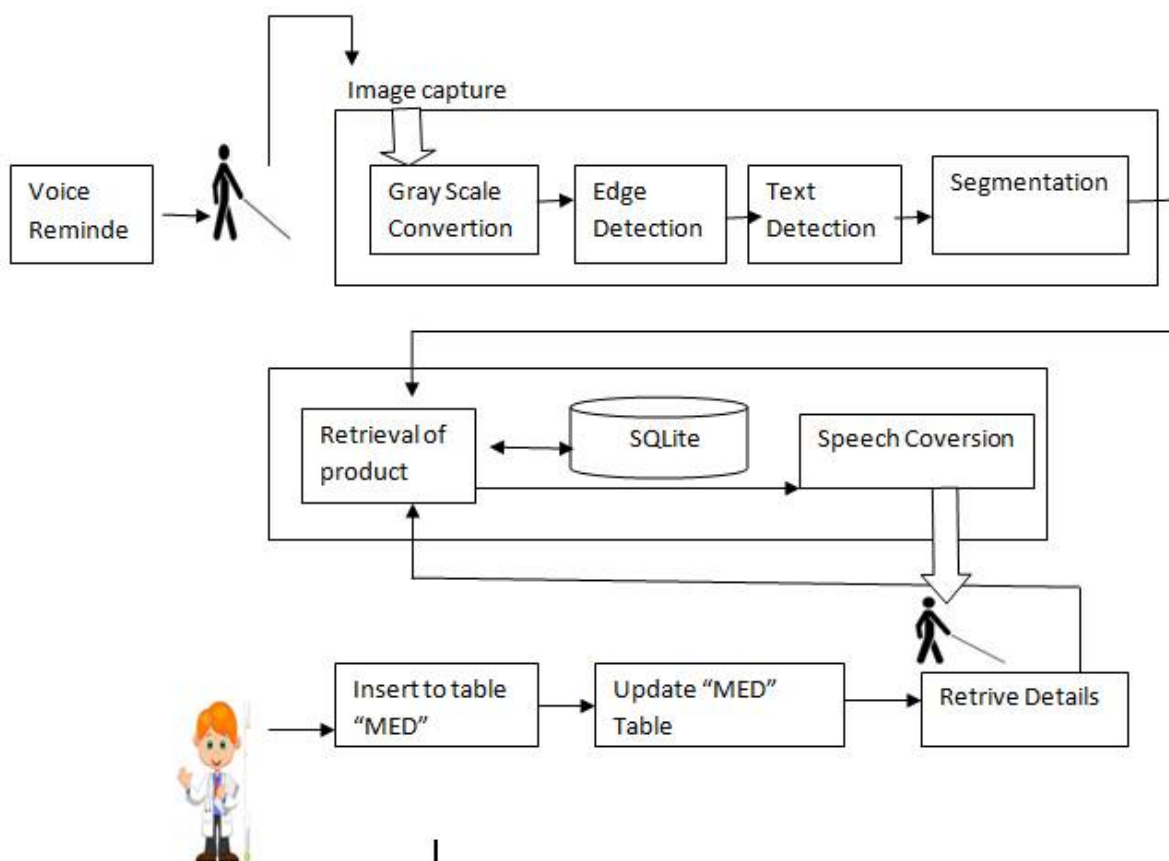


Figure1. System Architecture.

❖ Image processing module

The user gets a reminder as a voice output which tells when to take the medicines, and his reminder is set based on doctor's prescription. The reminder also gives the information whether the medicine should be taken before food or after food. Before the user could take the medicine, it would be good if he could know if the medicine he has in his hand is the correct one or not. In order to facilitate this, the application allows the user to search for the medicine details and retrieve information about the medicine using voice commands. This will help the visually impaired user to get an overall view about the medicine name and course details of the medicine. In this module, initially the search item is received as voice input from the user and the corresponding details of the medicine is retrieved from the database. These results are given to the user by converting it to speech.

❖ Obtaining product details

This is the most important and essential module for the visually challenged user to identify and choose the medicine he has to take. The proposed application uses the inbuilt camera of the android device for capturing the medicine image. The captured image is initially processed using text localization algorithms to separate the text from the background. Then text extraction methods are used to extract the name of the medicine or the label. The extracted text is then compared with the prescription in the database, if the extracted name matches with the name in the prescription then the medicine details are given as a voice output is given to the user.

❖ Course details

In this module, the application has the course detail switch is used for the identifying medicines and send them all to the user through voice output.



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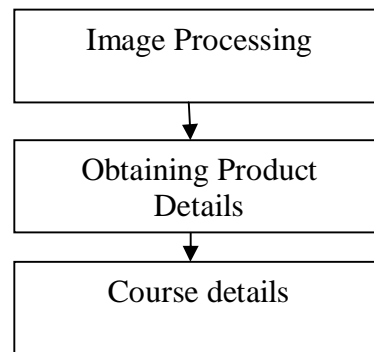


Figure2. Process Module

IV. APPLICATIONS

- This paper proffers an application in order to expedite easy and innate way to find the medicine for the visually impaired people and to take it according to their Doctor's prescription. Visually impaired people need not be dependent and seek others help to find the medicine to be taken. This android application is used to overcome the difficulties they face in this scenario.
- User intakes their medicines according to their prescription. It can also be useful for uneducated people who suffer to find which medicine must be taken. Especially elder people who are not educated usually suffer to read their medicine names on their own.

V. CONCLUSION

In this paper we have proposed an application for the outwardly impeded and the un-instructed individuals to give finish help with the prescription taking situation through mark perusing. Keeping in mind the end goal to do this we have exhibited a way to deal with distinguish, limit, and concentrate writings showing up in greyscale or shading pictures. This depends on utilizing a shading lessening system, a technique for edge identification and locale division and choosing content districts in light of their even projection and geometrical properties. This application is actualized on the android stage inferable from its convenience. All the information and yield are given by methods for discourse with a specific end goal to address the openness issues of the outwardly disabled. Future work incorporates empowering a various login choice in a same gadget with the goal that more than one outwardly impeded individual can utilize a similar gadget. To refresh the remedies into database all alone without specialists help by utilizing a printed medicine.

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