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Voice Based Doctor Prescription

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ABSTRACT

In India, thousands of people die as a result of wrong medication and normal ailment leads to severe ailments. The solution is voice recognition. It plays a vital role in effective interaction between humans and computers. The solution of recognition of voice can be used as a trigger to the number of the virtual application. This paper proposed a framework that signifies the use of voice recognition techniques for medical prescription. The goal is to avoid wrong medication for normal ailments viz. fever, cough, cold, body pain, etc. by designing virtual applications on voice base medical prescriptions. In this system, basic theories for voice recognition such as pre-emphasis feature extraction pattern comparison are implemented. The MFCC is used as a feature extraction technique and DTW as a pattern comparison. Since there is extensive fuzziness in medical prescription for a single disease or symptom, the fuzzy decision logic is introduced here for appropriate medication. System performance is analyzed by creating a symptom corpus.
Keywords- Automatic Speech Recognition (ASR), Fuzzy Logic, Acoustic Model.

1. INTRODUCTION

According to WHO Report, in India there is one doctor per 1500 people so if person want to go to the doctor then he/she have to wait for doctor's available time. This task becomes very tedious for hospital staff, doctor and patients also. Nowadays there is Covid-19 Pandemic in all over country so we have to follow Physical Distancing for avoiding rush at hospitals.

To overcome these problems of managing and booking appointments according to patient's choice of demand **"Voice Based Doctor Prescription System"** Version 1.0 is a patient focused unbiased, independent medical web-application with all over skin specialist doctor profiles across India. Patients can book confirmed appointments with doctors listed on website. This is a free service for both patient and the doctor. The Proposed project provides the most accurate, comprehensive and curated information and care, enabling them to make better healthcare decisions.

This project also provides the dynamic features like doctor's prescription of medicine made easier, the doctor and patient can meet online using our video consulting feature, it also provides chatting facilities with doctors regarding to query of patients .

2. LITERATURE SURVEY

Pharmacist as 20 mg Plendil, an antihypertensive drug.5 Poor handwriting undoubtedly subsidizes to another problematic truth: the high incidence of medical errors in Britain, which is estimated to cause the deaths of up to 30000 people each year.6 Illegible handwriting in medical records can have adverse medico-legal inferences Stephens [1]

The framework would serve as a reference model for developing voice-based e-Education applications. The e-education system when fully developed would meet the needs of students who are normal users and those with certain forms of infirmities such as visual weakening, repetitive strain injury (RSI), etc,[2]

Oct 04, 2019 · "Will half of all searches by 2020 really be voice searches? I'm going to start by looking at one of the most popular predictions that is cited in relation to voice search: "By 2020, 50% of all searches will be carried out via voice." This statistic is popularly attributed to comScore, but as is often the case with stats, things have become a little distorted in theretelling.[3]

We consider an application scenario where patients use the devices to communicate with their caregivers by recording and uploading their voices to the servers, where the caregivers can search the interested voices of their patients based on the voice content, mood, tone and background sounds.[4]

3. PROJECT MODULE

1. Admin

The whole system project is under guidance and supervision of admin who manages the booking made by patients.

2. Doctor

Doctors have to register themselves into the system, and setting up their daily available time

3. Patient

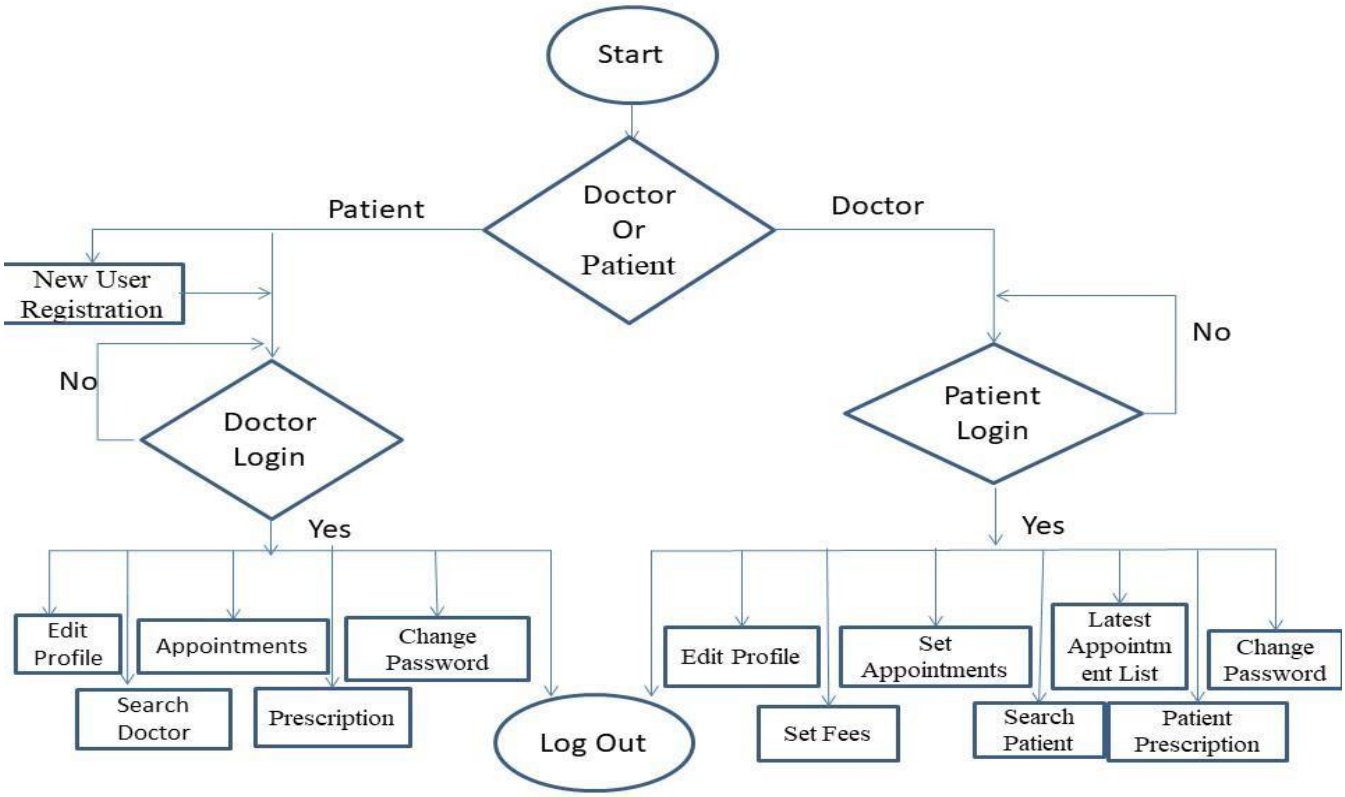
Patients have to sign up into the system, then they can see the availability of doctor whom wants to fix appoint with that particular doctor.

4. PROPOSED SYSTEM

By understanding the security of user valuable data this project provides the security for network of client and server related problems also for transactions made by users are safe. This project does not share any user's data such as photos and any other content. Dermo care does not share any user's data to third party.

As this website allows you easiest booking of appointment, according to patient valuable time it also provides the cancellation of fixed appointments and payment refund process is safer than other websites. This platform uses firewalls and follows privacy policy designed to keep provider's data separate from user's data.

5. DATA FLOW DIAGRAM



6. TECHNOLOGY USED

1 .Net framework 4.0

Microsoft .NET Framework is a complex technology that provides the infrastructure for building, running, and managing next generation applications. In a layered representation, the .NET Framework is a layer positioned between the Microsoft Windows operating system and your applications. .NET is a platform but also

is defined as a technology because it is composed of several parts such as libraries, executable tools, and relationships and integrates with the operating system. Microsoft Visual Studio 2010 relies on the new version of the .NET Framework 4.0. Visual Basic 2010, C# 4.0, and F# 2010 are .NET languages that rely on and can build applications for the .NET Framework 4.0.

2 ASP.net

ASP.NET is more than the next version of Active Server Pages (ASP); it provides a unified Web development model that includes the services necessary for developers to build enterprise-class Web applications. While ASP.NET is largely syntax compatible with ASP, it also provides a new programming model and infrastructure for more scalable and stable applications that help provide greater protection. You can feel free to augment your existing ASP applications by incrementally adding ASP.NET functionality to them.

3 MSSQL Server 2008

Microsoft SQL Server is an application used to create computer databases for the Microsoft Windows family of server operating systems. It provides an environment used to generate databases that can be accessed from workstations, the web, or other media such as a personal digital assistant (PDA).

6. USER INTERFACE

At the same level as Web Services is the User Interface. The User Interface is where Windows forms live. It also provides code for drawing to the screen, printing, rendering text and displaying images.

7. DATA AND XML

Both Web Services and the User Interface sit on top of the Data and XML block. As you will learn later in this paper, XML (or extensible markup language) plays just as important of a role as data. XML is used to provide a text view of data that can be shared between services on the same PC or passed through a firewall to a web server across the country using SOAP (more on SOAP a little later).

8. BASE CLASS LIBRARY

The base class library (BCL) is underneath the Data and XML block. This area is the origin for the base class of all .net programs. Everything in Visual Basic.net is an object, and all objects originate from a class named system. The BCL also provides collections, localization, text objects, interoperability with non-.net code and ActiveX controls and a variety of other services.

9. CONCLUSION

By adding more features in future it is expected that this Web application will go long way in a satisfying user's requirements**. "Voice Based Doctor Prescription System"** is a revolutionary healthcare

system by enabling patients to find best doctors and book instant appointments, online plus offline consultation and make better, more informed and integrated health decisions using advance technologies.

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