Analysis of Disease Diagnosis using Artificial Intelligence

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ABSTRACT: The term Diagnosis refers to determination of the nature of a cause of a disease. In computer science it is a typically used to determine the cause of symptoms and solutions. Our system enables to deliver   health   care,   diagnose patients, provide therapy, or make the patient to consult with physician for major diseases at   a   remote   site   or   areas with lack of medical facilities. The Aim is to provide expert-based health care to   understaffed remote sites and to provide advanced emergency.This article briefly describes the system   architecture, Literature Review, H/w and S/w Requirement, its Implementation module,etc.

KEYWORDS: Diagnosis, Disease, Module, Insurance, Software, Symptomate, Therapy

I. INTRODUCTION

The term diagnosis, is the identification of a certain phenomenon. In computer science it is typically used to determine the cause of symptoms and solutions. Disease diagnoses provide patients or users to inspect their disease by simply entering their symptoms into the system and the system will provide user with the name of the medicines if the problem is minor. This could reduce the cost of the patient for visiting doctors or to consult a doctor & will also save the time of the patient. Our aim is to provide excellent health-care based system. Hence this will be a new era into health-care based system and this will change the old practice totally.

II. RELATED WORK

In [3] Author describe about how Telemedicine enables a physician or specialist at one site to deliver health care,diagnose patients, give intra-operative assistance, provide therapy,or consult with another physician or   paramedical personnel at a remote site. Thus,the aim of telemedicine is to provide expert-based health care to   understaffed remote sites and to provide advanced emergency care through modern telecommunication and information technologies. Describes the current status of telemedicine including implementation, acceptance, Patient satisfaction, service and application, system configuration and requirements. In [1] author describes how Health-care system reforms can change the structure of the current U.S. health-care system, from centralized large hospitals to a distributed, networked health care system. In our model, medical care is delivered locally   in neighborhoods and individual homes, using computer technologies like telemedicine, to link patients and   primary care providers to tertiary medical providers. Health-care system reforms can

change the structure of the current U.S. health-care system, from centralized large hospitals to a distributed, networked healthcare system. In our model, medical care is delivered locally in neighborhoods and individual homes, using computer technologies like telemedicine, to link patients and primary care providers to tertiary medical providers.

A system name SYMPTOMATE checks the symptoms of the patient and provides necessary suggestion to the user. SYMPTOMATE is an application for checking the symptoms that will help you to find out about your symptoms. You have to just enter about your symptom and it will provide a list of diseases related to it and will recommend for doctors. It is done by simply typing or selecting the symptoms from which the patient is suffering. Then it uses AI to detect the symptoms. After checking for the symptoms, it will advise to visit the specialist. It also provides report on the patient email after analyzing the disease.

III. PRESENTATION OF THE MAIN CONTRIBUTION OF THE PAPER/SCOPE OF THE RESEARCH

Our scope of the project is to build a technology which changes the old concept of visiting doctors, taking appointment, waiting in queue, people should also leave old hectic practices and start a new easier one as India is going towards a digital world. +9+e and the people who live in rural areas have to travel long distance and come to cities, just to consult a doctor because there are no proper treatment available in their areas. Such people can use this system efficiently.
Basically, the system would recommend the user related medicine according to the symptom entered by the user. The system might also suggest to visit a doctor if the symptoms are critical.

IV. PROPOSED METHODOLOGY & DISCUSSION

The project consist of two modules. First is the main module which is of disease diagnosis and second is the health insurance eligibility checking module.
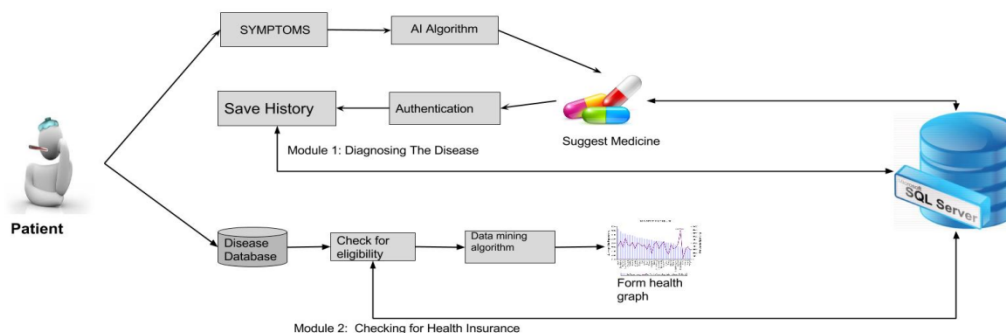
Disease Diagnosis Module

This module starts with patient registering on the system then after registering user enter his/her symptoms for checking. Basically it will act as a symptom checker. The system checks for the symptoms by using various AI algorithm and return with desired result by displaying diseases the user might suffer from. If symptoms are not serious then for time being system will recommend some medicine or otherwise it will suggest to visit the nearest physician. The symptoms entered by the user will get authenticated by doctors. It would save the symptoms for future references.

Checking Eligibility For Health Insurance

In This Module, all the diseases are predefined in the database and the data will be mined based on the symptoms. Eligibility will be checked of the patient for providing the health care insurance. The Data from the patient's database will be mined by insurance company using various Data mining algorithm. Once the data is mined a Health graph will be formed of respective patient. At last, the physical status of the patient will be concluded.

V. IMPLEMENTATION OF METHODOLOGY

The proposed system will be implemented as an Android Based Application. Due to the current trend of smart phone. The android application will be best suited. The application will be built using android IDE. The application will be working on all the above version of jellybean (4.0). The application will be synchronized with the database stored at the webserver. Database will be used as the main asset of this application. Database will be maintaining all the disease related medicine and a predefined condition for checking the eligibility for insurance. The system would fetch required details from the web server. This application will be most suited for tech friendly people who likes to do everything on hand and people traveling from cities to rural areas. Hence an android application of disease diagnosis is a boon to the society.

VI. CONCLUSION

This project is well suited for providing care to under-served communities in rural areas. The project offers considerable potential benefits to the user. It is an effective means of providing acute treatment to people living in rural areas and people does who are busy in day to day life. The idea would be helping the needy who can't afford travelling long distance just to consult for minor diseases. This project will be a boon for the rural people who have to travel a long distance for their treatment and also for the areas with lack of medical facilities

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