



## Smart Health Prediction System using Data Mining

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**Abstract:** *The Health Prediction System is an end user support and online consultation project. This system allows users to get instant guidance on their health issues through an intelligent health care system online. The system contains data of various symptoms and the disease/illness associated with those symptoms. It also has an option for users of sharing their symptoms and issues. We will use data mining technique in the prediction for patient, we will get ready database and we will work on it to make prediction for patient, and patient can take the medicine directly from the pharmacy if doctor can't make prediction*

### I. INTRODUCTION

Smart Health Prediction System Using Data Mining. Data mining is a new powerful technology which is of high interest in computer world. It is a sub field of computer science that uses already existing data in different databases to transform it into new researches and results. It makes use of Artificial Intelligence, machine learning and database management to extract new patterns from large data sets and the knowledge associated with these patterns. The actual task is to extract data by automatic or semi-automatic means. The different parameters included in data mining includes clustering, forecasting, path analysis and predictive analysis

Data mining has many applications in the fields of telecommunication industry, financial data analysis biological data analysis and much more. With the growing research in the field of health informatics a lot of data is being produced. The analysis of such a large amount of data is very hard and requires excessive knowledge. E-healthcare applies data mining and telecommunication techniques for health diagnosis. There are some patients who require continuous check-up and might need doctor help immediately. E-health was primarily used for patient data analysis and disease diagnosis at various levels. In today world e-health is used to form patient and physicians blogs and monitoring data such as sensors attached to patient are exercised to assist better diagnosis of the patient and for a continuous check-up of sensitive patients. WHO defined E-health as, the use of information and communication technologies (ICT) for health to, for example, treat patients, pursue research, educate students, track diseases and monitor public health.

### II. EXISTING SYSTEM

The main problem here is that, more time is taken to result the disease corresponding to the problems. This has to be eliminated. A general solution has to be developed which will provide facilities to result the health issues in a faster and more efficient way. Also user have to search best doctor which consumes a lot of time and then book appointment, so

there is a lot of manual work for user. Patients are harmed in the process of delay, not only through wasted time, but through unnecessary suffering, and through adverse medical outcomes. Our system are harmed through the added cost and reduced efficiency resulting from the complications of handling delayed patients. Current system is Less Security, Fewer Users – Friendly, Manual system need man power a lot, It is unable to generate different kinds of report

### III. PROPOSED SYSTEM

This project aims in developing a computerized system to check and maintain your health by knowing the symptoms. This study has many features generally not available in normal software like suggesting doctors as per the disease, Symptom checker, gives reference of mobile applications that could help us to remain fit. It has login functionality so that it would be an easier for user to register him and view all the functions on the site and access it easily and with speed.

It has a symptom checker module which actually defines our body structure and gives us liability to select the affected area and checkout the symptoms. Overall this study is done to help the people of all ages to check the symptoms related to affected area and can cure it as soon as possible.

This study focuses on developing a computerized system to maintain a checkup system for people to check about their own health issues. With this computerized system there would be an ease for people to recognize the health issues. We will make data mining for specific hospital information and we will make process for this data using data mining technique

The proposed system offers health professionals a more efficient and convenient way for patients to make prediction on specific database we got it from external area.

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medicine directly from the pharmacy if doctor can't make prediction

The purpose of the system is to enhance techniques of storing and processing huge set of data information. Hadoop is a distributed file system that takes structured and non-structured data from different sources and processes it following the conventional data management methods. The system is designed to exchange information from a single server to thousands of machines with parallel processing. The information is broken into different parts and then processed in parallel manner which has much room for improvement. The research identifies parallel execution of processes as a problem and proposes to enhance it with batch processing. The information is huge and can be collected from various sources and can grow with time. Enhancements that the system has to offer are Data Latency, Real time queries, Easy Interaction, Synchronous processing and Real time search

#### IV. SYSTEM REQUIREMENTS

- Oracle Application Server 10G: Web Server  
This for publish our website on the internet and open it using internet browser.
- Internet Explorer/ Chrome/ Firfox: Browser  
Any browser available on the device we can use it to open the website
- Database : Oracle 10G  
This version of Oracle database it's the best type of the database used to store a lot of data and we can make retrieve the data at any time , and easy to take the backup.
- Language: Oracle forms Developer 10G  
This tool used to make development the interface of website, 10G this is the version of software.

#### V. SMART HEALTHCARE

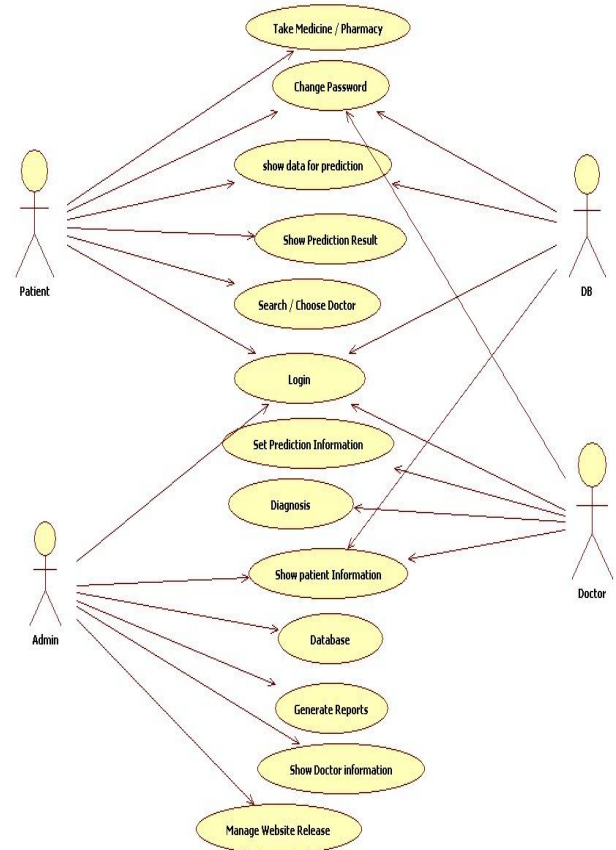


“Intelligent Healthcare” (IH) is a metaphor both for design and for practice with the explicit understanding that through emerging technologies those two will become ever more

closely intertwined. The role of IH is to both harness those diverse information resources dynamically and apply them back to their respective communities to enable continuous practice improvements. So at the lowest level, Intelligent Healthcare requires tools and techniques that can access and distribute data across domains as needed

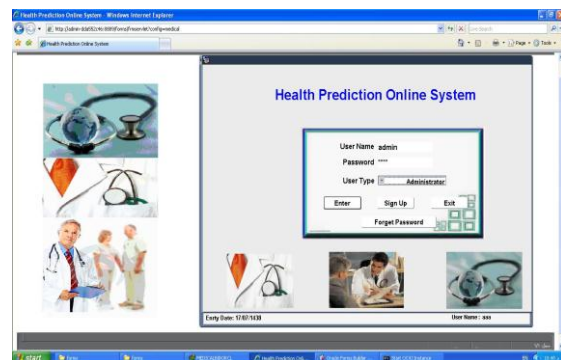
#### VI. SYSTEM DESIGN

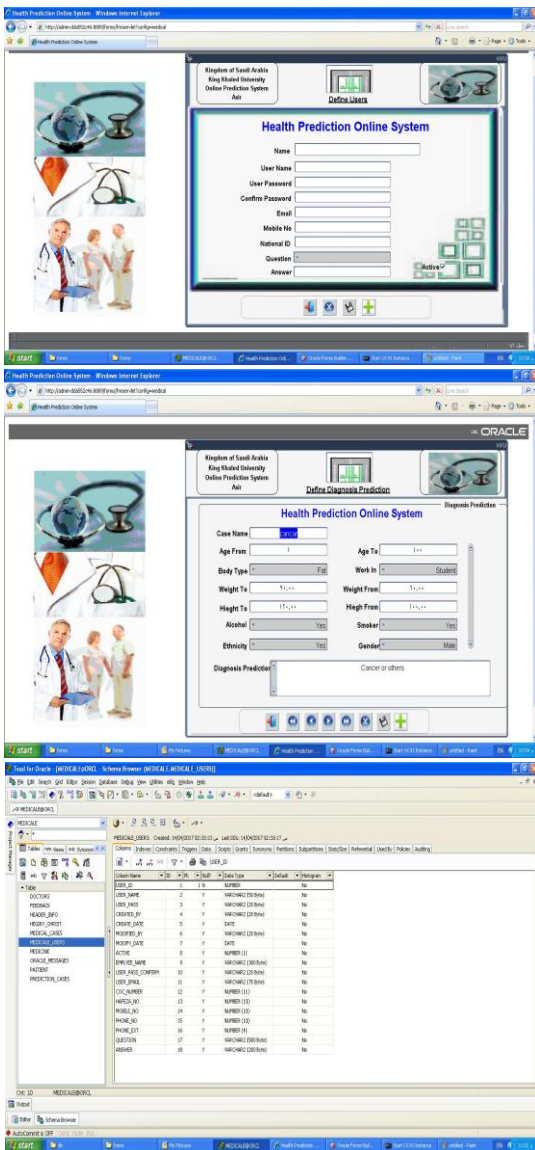
The use case diagram for the system is shown in Fig



#### VII. SYSTEM IMPLEMENTATION AND TESTING

The code of the project is written and compiled for errors. The system is tested for unit and integration test. The system is working well. The output of the system is shown in figures





**VIII. CONCLUSION**

Data mining has great importance for area of medicine, and it represents comprehensive process that demands thorough understanding of needs of the healthcare organizations. Knowledge gained with the use of techniques of data mining can be used to make successful decisions that will improve success of healthcare organization and health of the patients. Data mining requires appropriate technology and analytical techniques, as well as systems for reporting and tracking which can enable measuring of results. Data mining, once started, represents continuous cycle of knowledge discovery. For organizations, it presents one of the key things that help create a good business strategy. Today, there has been many efforts with the goal of successful application of data mining in the healthcare institutions. Primary potential of this technique lies in the possibility for research of hidden patterns in data sets in healthcare domain. These patterns can be used for clinical diagnosis. However, available raw medical data are widely distributed, different and voluminous by nature. These data must be collected and stored in data warehouses in organized forms, and they can be integrated in order to form hospital information system.

Data mining technology provides customer oriented approach towards new and hidden patterns in data, from which the knowledge is being generated, the knowledge that can help in providing of medical and other services to the patients. Healthcare institutions that use data mining applications have the possibility to predict future requests, needs, desires, and conditions of the patients and to make adequate and optimal decisions about their treatments. With the future development of information communication technologies, data mining will achieve its full potential in the discovery of knowledge hidden in the medical data

**IX. REFERENCES**

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