## ISSN 2395-1621



# Pharmacy Route Finder

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#### ABSTRACT

# ARTICLE INFO

As we have seen, there are many problems in searching the medicines in different medical stores. Customers didn't get the required medicine when it is required in urgent. When customer searches for medicines, sometimes they didn't get all the medicines they are searching in a single medical store and then they have to find the remaining medicines in different medical stores. The system is web based it is effective and efficient with respect to work, productivity and time . By using this system the operations in the medical stores are automated. In the traditional system, the records are stored manually whereas, in this system, the records are stored in the central database. For the security purpose, the blockchain technology is used, the blockchain will provide security to the user's crucial data. It provides a solution for such problems of customers. In the system, user will enter the name of the medicine and will get all the medical stores in his locality area where the customer will get his required medicine. It helps to reduce the time duration of the process and also customer saves the extra money needed for delivery charges.

Key Words :KNN, Block chain, Database

## I. INTRODUCTION

Healthcare is a booming sector of economy in our country. With the growth of medical field, come challenges including rising cost of medicine, poor quality of medicine and increasing complexity. There are many problems in searching a medicines in different medical stores. Customers didn't get the required medicine when it is required. Customers searches for medicines in medical stores but they did not get the medicines. The main purpose of the system is to help the people to find the medicines in the nearest locality. It also helps to find the list of medical stores where the medicine are currently available. The application provides the user to login to the account and register. The person of the medical store can update the list of medicines and stock available in the medical store. The outdated data is not provided to the user. Many medical stores are closed at night time but customer didn't know that which medical stores are open and which are closed. Our system also will provide the opening and closing timing of medical stores. This application allows a visitor to search for a medicine and addresses of medical stores where the medicine is available(8).

Customer will enter the name of the medicine and will get all the medical stores in his locality area where customer

Article History Received: 28<sup>th</sup> March 2020 Received in revised form : 28<sup>th</sup> March 2020 Accepted: 2<sup>nd</sup> April 2020 Published online : 5<sup>th</sup> April 2020

will get his required medicine. System input contains medicine names and location of the user while system output we providing is name of the nearest medical stores and address with location. It helps to reduce time duration of the process and also customer saves the extra money needed for delivery charges. There will be different functionality for customer and medical store. Medical store will have functions like add medicines, delete medicines. KNN algorithm will be used for finding the nearest medical stores(9).

#### 1.1 Goals & Objectives

- Customer Self Service.
- Reduce time.

1.2 Scope

- Information about Medicine is search by just Entered the Medicine Name and find nearest medical.
- Find nearest medical store using location Examples are classified based on the class of their nearest neighbors

#### 1.3 Existing System

Currently 1Mg app is available. Today, everyone uses online application from shopping to banking. The app is android as well as web based application, which is essentially an all medical store need. Whether you need to buy medicines, find a good doctor near everyone or even have samples pickup for diagnostics tests picked up from home, the app lets you do all that and then some(6).

#### Drawback of existing system:

- It takes more time to deliver the medicines.
- It requires prescription to place order.

#### 1.4 Proposed System

The system is designed with a purpose to get the nearest medical stores where customer will get the required medicines. The system will provide security to the users crucial data. It will take care that the users useful data is not misused(4).

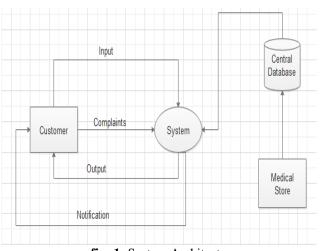
#### Advantages of proposed system:

- Requires less time.
- Security of customer details.

#### **II. MOTIVATION**

- To design software to manage all areas medical store nearby customer.
- To reduce time for finding medical store, where customer will get medicines.

**III. SYSTEM ARCHITECTURE** 





#### Explanation:

(a)Customer:

The user will login to the application and register to it. The user can search for the medicine which are required. The user can also provide feedback/complaint about the application.

(b)System:

The system will take the medicine name and location of the user as input to search for the medicines which are available in the nearest locality of the user.

It will provide the list of nearest medical store to the user as the output.

(c)Medical store:

The person managing the medical store will update the list of medicines available and also update the stock of each medicine.

It will also provide the timing of opening and closing of medical store.

(d)Central Database:

It contains all the information about the user like username, phone number ,location, etc.

The information about the medical stores like store name, medicine name, Price, stock ,etc are stored in the central database.

## **IV. LITERATURE SURVEY**

In The summary of reviewed papers is included in followings:-

**1.Paper:**Data Mining technique for medical data a review **Author:** Subhash Chandra Pandey

**Description:** Medical data is the databases which is generally used to store healthcare information like the patients records. As the information technology is developing day by day, many different kinds of medical data are stored in electronic forms. There are different types of data mining models that vary from one application domain to other application domain. It can be broadly classify into two groups first is predictive model and second is descriptive model.

Some of the most important data mining tasks used in medical and healthcare domain are given as:Summarization,Association,classification,clustering,Trend analysis and Regression(2).

Data mining applications in healthcare are Diagnosis and prediction of diseases, ranking of various hospitals, Better treatment techniques, effective treatments, Better quality services provided to patients. Infection control in hospitals, Identifying high risk patients, proper hospital resource management.

**2. Paper:** Online medicines and medical products shopping - a Brief study

Author: Kapil sharma, Rinku sharma, Indian institute of management, Indore

**Description:** online shopping of different medicines and different medical products is a good option because it saves time, money, fuels and problems like traffic jam. This system is environment friendly. In today's generation everyone has a busy schedules, so they don't have enough time to visit to the shop and buy the products so now a day's people are adopting online shopping to solve their problems(7).

Advantages:

It saves time as it is possible all the required medicines are not available at a single medical store. It save money as different pharmacy application give discount on the medicine and medical product. It saves fuel as the customer don't need to go for buying market to buy medicines. online websites request customer to upload prescription of medicine which is written by doctor.

Disadvantages:

The medicine which are required urgently cannot be order online. Prescription error occurs when the doctor's handwriting is not readable. Emergency medical product cannot be ordered before because generally it is required on urgent basis. **3.Paper:** MedRec : Using block chain for medical data access and permission Management

Author: Asaph azaria, ariel Ekblaw, Thiago Vieira and Andrew Lippman

**Description:** MedRec is a new, redistributed record management system which handles Electronic Medical Record's using block chain technology. This system provides patients a fix log and easy access to their medical information. MedRec manages authentication confidentiality, acceptability and data sharing when handling crucial information. It is designed to keep a financial ledger, the block chain paradigm can be improve to provide a generalized framework for implementing decentralized compute resources. Block chain technology supports the use of smart contracts(5).

**4.** Efficient and privacy-preserving Medical data sharing in infront of things with limited computing power:

**Description:** The IOT system is made up of large number of different intelligent objects like Smartphone, portable health devices which collects a lot of sensitive data and then it is stored on a cloud server to be stored by people. When the sensitive data of the patient is exposed to an open network then the privacy and security of data comes into picture. The challenge is how to protect the user sensitive information and other challenge is ,how to quickly produce cipher text stored on the cloud server. To overcome these challenges and problems, a source medical data sharing system is proposed which will protect the privacy of users and improve the efficiency of encryption.

The sensors and mobile terminals can encrypt sensitive data provided by the users and send it to the cloud servers. The user who can satisfy access control structure can access data in the system. The main focus of the system is given as Firstly, In the security system, when the cipher text is uploaded to the cloud server the access control structure will also be uploaded. Attribute blown filter is used to hide the entire attributes in the anonymous access control structure. At the end, the data which is stored on the cloud server will be protected. Secondly, For generating the cipher text more quickly the system use online/offline encryption technology. Before knowing the encryption information, a large amount of work required at the encryption storage will be done. The cipher text is generated quickly when the encryption information is known at the end the efficiency of encryption will be solved. Finally in the system, the initialization storage of the system do not require all attribute to be specified with the user increase in overall attributes of the system users, the system do not need to be initialized. This will also improve the efficiency.

**5.** Privacy security and storage issues in medical data management:

**Description:** Now a day's Health care industries are adopting electronic Medical Record (EMR) system, where previously paper based records. By using EMR, health care services can be provided but privacy, security and storage of information will be of concern. This research study is focused on Health Insurance Portability And Accountability Act(HIPAA).It also discuss how to protect health information of individual. The proposed web based EMR system is based on security and privacy features defied by HIPAA. EMR is useful as there is no need to carry medical file every time while visiting to the health care provides information of the patient can be accessed from anywhere at

any moment of time. There are issues like privacy, security and space for the data as the electronic record can be easily stolen, destroyed, copied or disseminated. The main focused of the system is on HIPAA. Their developed system is based on privacy and security features.

Privacy Rules:

The principle states that the information will be disclosed to information owner only. without disclosing information to the medical practitioner it is not possible to provide proper treatment to the patient. This give rise to first exception. To disclose the sensitive information, covered entities must get written consent from information owner. Fertility problems, sexual disease, psychiatric disorder, absorption, etc are the highly sensitive issues which people don't share with others. Medical practitioners can disclose the sensitive information sometimes when they believes that patient will have negative consequences like depression, frustration, etc(1).

Security Rules:

National standards are established by security rules to protect electronic personal health information. Which are created used or maintained by a covered entity. To protect privacy of patient's data it need to develop access control mechanism based on encryption and cryptography(10).

#### V. CONCLUSIONS

We conclude that our system will help the customers in finding nearest medical store in the locality of the customer for the specific medicine. This system provides security to the user by keeping their medical data secure.

#### REFERENCES

- [1] S. Amofa et al., "A Blockchain-based Architecture Framework for Secure Sharing of Personal Health Data," 2018 IEEE 20th International Conference on e-Health Networking, Applications and Services.
- [2] subhash chandra pandey"Data Mining Technique For Medical Data", Birla Institute of technology,Mesra,India.
- [3] Tongji University Shanghai A Secure Remote Healthcare System for Hospital Using Blockchain Smart Contract Hoai Luan Pham, Thi Hong Tran, Yasuhiko Nakashima Graduation School of Information Science, Nara Institute of Science and Technology (NAIST) Takayama 8916-5, Ikoma, Nara, Japan.
- [4] S.zang"Missing is useful:missing values in cost sensitive decision trees",IEEE transactions on knowledge and data engineering,volume-17,no.12,2005
- [5] Asaph Azaria ; Ariel Ekblaw ; Thiago Vieira ; Andrew Lippman " MedRec: Using Blockchain for Medical Data Access and Permission Management" Date of Conference: 22-24 Aug. 2016
- [6] Grazia Orizio, MD, PhD "Quality of online pharmacies and websites selling prescription Drugs: a systematic review", J Med Internet Res 2011 | vol. 13 | iss. 3
- [7] Kapil sharma, rinku sharma" online medicines and medical products shopping- a Brief study", International Journal of Management and Applied Science, Volume-2, Issue-2

- [8] Smith Tsang, Ben Kao, Kevin Y. Yip, Wai-Shing Ho and Sau Dan Lee, "Decision Trees for Uncertain Data", IEEE, VOL. 23, NO. 1,1-15, 2011.
- [9] S. Mutrofin, A. Kurniawandhani, A. Izzah, and M. Masrur, "Optimasi Teknik Klasifikasi Modified K-Nearest Neighborn Menggunakan Algoritma Genetika". Jurnal GAMMA. 2016. Vol. 10 No. 1, pp. 1-5.
- [10] Mr.Laxman Khandare "A study on Encryption Techniques to Protect the Patient Privacy in Health Care System" 2019 Innovations in power and advanced computing Technologies(i-PACT), Dept. of computer Engineering, DR. D.Y.Patil Institute of Technology,Pune,India