Review on Artificial Intelligence based Pharmaceutical Retail Store Management System

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Abstract- The whole pharmaceutical areas needed various innovative and scientific solutions to solve the current problems related to cGMP practices, production, documentation, regulatory body requirements (e.g., US FDA, WHO, EU-GMP, PICS), quality of product etc...
In this project we have fulfil all the requirements of a modern Medical Store. The capacity in this project is to maintain the records of different patient, medicines, Expiry, cost. The goal of this project Medical Store Management system includes registration of patients. It will digitalize the entire billing system. Thise software could give a unique id for all patients and stores the particulars of every patient. It includes a search capability to recognize the status of medicines. Admin can search accessibility of a medicines and the details of a patient using the id. by enter patient's username and password the data can be retrieved easily. The interface is actual user-friendly. The data are fine protected and data processing is very fast, correct. The required software and hardware are without problems handy and convenient to work with. Medical Store Management System, as described above, can lead to error free, secure, dependable, and quick administration system. It can aid the person to listen on their other activities as an alternative to pay attention on the document keeping. Thus, it will assist companies in higher utilization resources. The employer can hold computerized documents besides redundant entries. That skill that one need no longer be distracted by means of records that is now not relevant, whilst being capable to attain the data.

***Key words*:** Computer Software, Artificial Intelligence

1.INTRODUCTION

Retail pharmacy is a variety of pharmacy that can be considered as a shop. Through this shop different persons can buy the medicines according to their requirements. Retail pharmacy is also known as the community pharmacy where a community pharmacist works to serve the people in the form of providing required medicines. Community pharmacist also guides the people about the use of medicines.

The "Medical Shop Management System" has been developed to override the problems prevailing in the training guide system. This software program is supported to take away and, in some instances, minimize the hardships confronted through this current system. Moreover, this system is designed for the unique want of the business enterprise to elevate our operations in a smooth and high-quality manner. The utility is decreased as a whole lot as viable to keep away from blunders whilst getting into the data. It additionally offers error message whilst coming into invalid data. No formal information is needed for the person to use this system. Thus, via this all it proves it is user-friendly.

It can help the consumer to pay attention to their other things instead of paying attention to document keeping. Thus, it will assist organizations in higher utilization of resources. Every organization, whether huge or small, has challenges to overcome and manage the statistics of Stocks, Medical Shop, Sales, Medicine, User. Every Medical Shop Management System has one of a kind Medical Shop need, consequently we format exclusive employee administration structures that are tailored to your managerial requirements. This is designed to help in strategic planning and will assist you make certain that your organization is outfitted with the proper degree of facts and important points for your future goals. Also, for these busy govt who are usually on the go, our structures come with remote get entry to feature, which will permit you to control your staff anytime, always. These structures will in the end enable you to manipulate resources.

In this system we used chatbot and QR Scanner

2. LITERATURE REVIEW

In the base paper, an automation is built with modules which focuses on accounting the quantity of Medicines, it is focused on creating a Chat bot by feeding the live data on how many Medicines are added, it uses a database to store the quantity of Medicines each day and later the presented data is represented in inventories to check the current day's revenues.

The automation modules are connected to the inventory of the store, the medical store management system module keep track of the number of medicines sold which records the revenues of the medicines sold today to add more medicines in stock and sends the details to the inventory of store using the automation.

3.PROPOSED WORK

To date there was no Software where Medicines are recorded automatically using chatbots and QR code.

- *Chatbot:* -It helps to find out expiry dates, stocks, location of medicine in store, etc. As these days if the chemist's having to check any information about the medicines which are in stock or out of stock, they must check manually by themselves (By checking the medicines name and reading the data of medicines) [4]. This process required a bit large 18 amount of time as there are several medicines.
- *Scanner:* -it helps to manage the record of medicine in medical store by auto filling the stock's data in system by scanning the medicine.
- *Barcode Scanner:* - it makes the bar code of the bill for the customer and the customer can scan it to get the bill virtually. The customer must scan the bar code which will be generated by MS management system, with their phones and then the virtual or soft copy of the bill will be in the customer's phone.
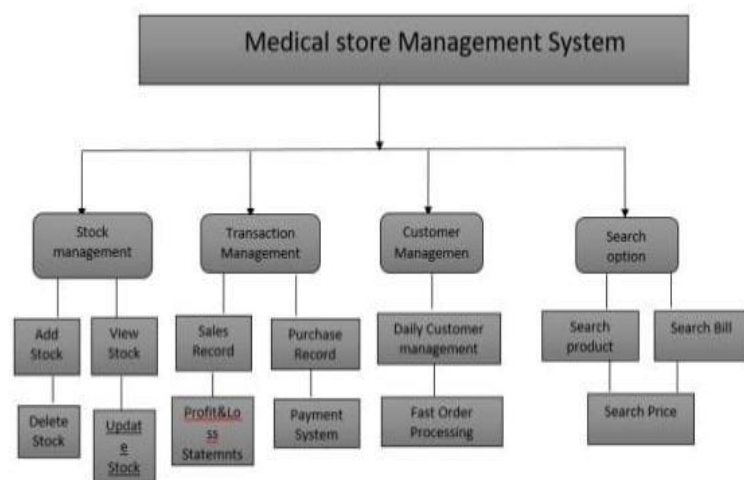
4. SYSTEM ARCHITECTURE

Fig 1. Medical store management system

5. METHODOLOGY

1. New Valid Customer for adding Valid customer or patient's details.
2. ADD product for adding medicines or drugs in the inventory.
3. Cancel product for deleting medicines.
4. Billing system for customers to get contactless billing.
5. Modify product for modifying cost, expiry, track location. Etc
6. Chatbot is used for checking medicine details like track location, expiry, cost. etc
7. QR code generator is specially used for generating bills in form of QR code.
8. Scanner which fills the data of products automatically in the system.

6. IMPLEMENTATION

Artificial intelligence devices can learn from the environment (Michalski et al., 1983) and this is one of the most important attributes of artificial intelligence. These devices can make the action according to their literacy. ML (Machine learning) algorithms are used to train these artificial intelligence biases. Every field will be using artificial intelligence in the future. Because the artificial intelligence is So helpful to increase the performance.

7. SYSTEM REQUIREMENT

This Composition will talk about the points and how Medical Store Management System works. The dialogue consists of the forms, modules, and consumer interface of the system.

Login Page:
 This shape will require the person to enter the right total of username and password to log in to the system. When logged in to the system, the person can get admission to libraries and aspects of the system.

Admin Dashboard:
This serves as the Abecedarian web runner of the appliance administrator. The Medical Store's libraries are displayed on the dashboard and managed with the aid of the administrator.

Manage Medicine:
This module will enable the admin to manipulate libraries of medication treatments in the system. The admin will add, edit, or cancel medication records in the module.

Add New Valid Customer:
This structure will enable the admin to add new valid client details. The admin will review the following information of the customer's data i.e., Customer Name, Address, Id Shown under is the layout of the Add Clients Detail form.

Generate Bill for Customers:
This structure will permit the admin to manipulate small print and bring about payments of the account for the bought drug.

Update medicines Using QR and Scanner:
 This system will help to modernize databases using QR canons put out in Medicines entered in medical stores. Takes Input image of any QR. Check QR and add cure in Database. Shows Error communications when same QR is captured by camera.

8. CONCLUSIONS

The study shows the significance of artificial intelligence and machine learning algorithms. It's easy to describe how artificial intelligence can be used to save time. The retail store must take this up for the better performance. Rather than giving the known medicine, the chemist can give the effective medicinal to the patient with the help of ML (machine learning) prediction algorithms. These algorithms can be used for prognosticating the condition of a case and can also be used for prognosticating the medicinal for those conditions.

9. FUTURE SCOPE

The coming work can be the execution of these machine learning algorithms so that the correct medication can be supplied to the client. This will save time and give further accurateness.
This system solely covers the improvement methodology of the medical store operation system. The experiments constantly center attention on growing a machine that will electronically streamline the operations and sales in a medical store.

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