

AUTOMATING THE PHARMACY MEDICINE SUPPLY MANAGEMENT SYSTEM USING CLOUD COMPUTING

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ABSTRACT

Pharmacy management system is a web operation to manage the stock of the medicines repertoire and monitoring the stock establishment. It substantially tells us the whole process of purchase of drugs any kind stepwise. It provides druggies with an easy medium to order drug they need in case of health problem. Although the pharmaceutical sector of the world is amended so important and the product is over to the mark but the incorrect operation system sanitarium drugstores make the cases burden high. Where in, different micro services are getting registered and discovered by some other micro services. The chemists need to authenticate themselves to logon to their system. The application developed will target this requirement. This paper introduces cloud-based approach, wherein, the different micro services are getting registered and discovered by some other micro services. The pharmacists need to authenticate themselves to logon to their system.

Keywords: *Pharmacy, Docker, Elastic Container Service, Eureka, Service registry*

INTRODUCTION

In this technological world, being updated is a necessity!! With the transformation of all the things digitally, the medical field is also transforming drastically with so many new inventions and methodology, according to the convenience of the people and due to the pandemic caused, "digital pharmacy" will be a preferred choice for most of the people. This application is designed to generate report while displaying all the product details. On the arrival of fresh stock, it needs to be manually updated, the main point is to provide an application to reduce the manual work of the pharmacist involved and automate all the possible process. This application will help to keep record of all the medicine in good manner and any type of medicine can be searched easily with exact detail about that medicine. It can help to easily update the stock of medicines available.

II. Related Work

In reference [1]-The author investigate the Pharmacy Management System is to automate the process of saving and retrieving information of Patients, Drugs and Bill Payments. A pharmacist monitors with patients' program and it is recorded in the electronic pharmacy records. Accurate pharmacist-id is essential for ensuring the patients can contact the pharmacists if additional information is needed. There are five modules login, patient registration, patient health report, Medicine information, description and bill creation. The advantage of this paper is reducing your working expenses which will save a lot of time and money. Simultaneously updates changes made to any data, item in the entire data base. PMS is designed to support the privacy and security of personal health information recorded and stored within the systems. PMS store the necessary information of the drugs for easy retrieval by implementing FIFO – First in First Out and LIFO – Last in First Out inventory management.

In reference [2]- Pharmacy With a great demand of medicines, one could not cope up with this fast world in keeping his data manually. This paper presents an application through python which help us to record data about the medicine. Delete it which help the person to get data about medicines. This application will

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help to keep record of all the medicines in a good manner and any type of medicine can be searched easily with exact details about that item. It can help to easily update the stock of the medicines available. This will cause mistakes as well as enhancement in the workload of pharmacist [1-3]. The main concern of the proposed system is to create an application program to reduce the manual workload of pharmacist and print customer's medicine bill [4-5] proposed methodology. To design maintenance software, the basic requirements would be a powerful Platform, reliable storage capability and a simple interface. Processing Pharmacy records and generate report of all pharmacy. Processing Medicines records and generate report of all Medicines. There are modules processing stocks records and generate report of all Stocks Processing Company records and generate report. Processing Sales records and generate report of all Sales Processing Inventory records and generate report of all Inventory. The effective implementation of this software will manage all the needs of MMS. It is capable of providing easy and effective storage of information related to activities happening in the stipulated area.

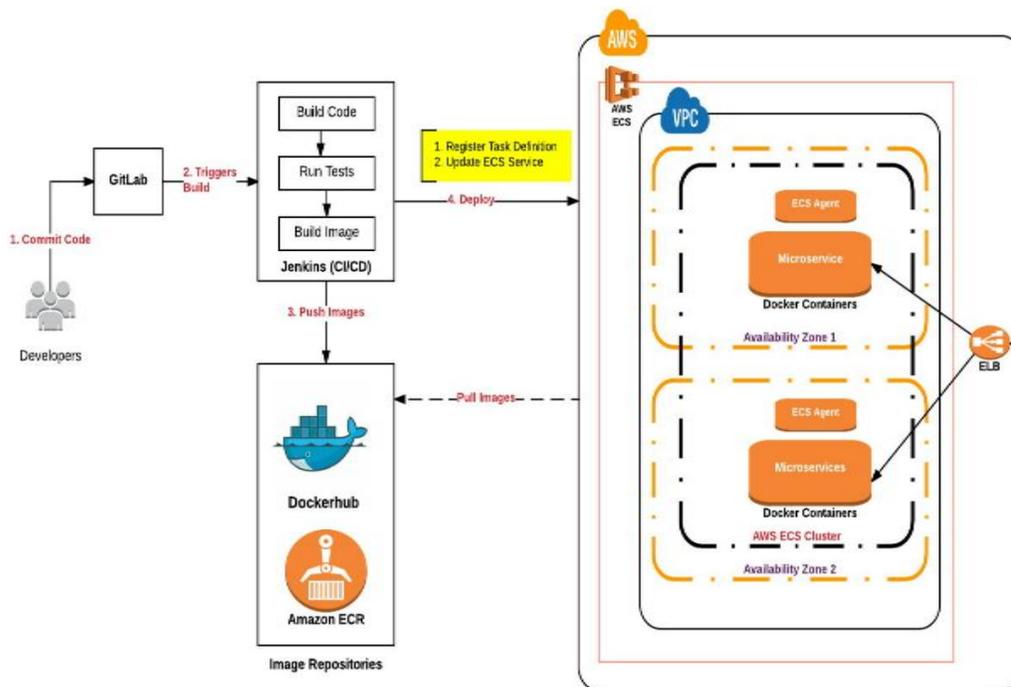
In reference [3] - A pharmacy stock inventory system (PSIS) is a computerized system designed for user to manage this project was developed using Visual Basic 6.0 and Microsoft Access 2000 as a database platform. As a final result, this system was fulfilled all the research objectives. This research was successfully developed the PSIS prototype system, computerized and optimized the current system using String Search Algorithm. The stock of the drugs inventory and monitoring the stock facility. The main scope is the system was developed in Windows environment, which is familiar to various classifications of users, with or without IT background. This is a standalone system. The system was designed to track record of the stock of the pharmacy inventory. The size of sample data of drugs is 2359. The user of this system is pharmacist. The disadvantage is Not applied searching technique for which can find drugs that suitable with the disease the problem-solving techniques are Karp-Rabin Algorithm, Tuned Boyar-Moore Algorithm, String Match Searching Algorithm. The issues the request to suppliers and the whole records quantity accepted by them and automatically the amount from store inventory will be deducted. After all the process was completed, all the detail listing of stock in and out activities for a given time period, by medication, medication type, and supplier.

In reference [4]- In this paper is insight into the design and implementation of a Pharmacy Management System. The primary aim of it, is to improve accuracy and enhance safety and efficiency in the pharmaceutical store. Today management is one of the most essential features of all form. Management provides sophistication to perform any kind of task in a particular form. This is pharmacy information management system; it is used to manage most pharmacy related activities in the pharmacy. At first running show this form. We can "start" in our program by this form. This form has one command. We can enter to the program if clicking start command., the first contain ten textbox and one combo box, the text boxes its medicine ID, medicine type, medicine name, generic name, medicine company, country of medicine made, medicine ship, buying price of, medicine, date of buying numbers of, medicine and expired date of medicine. The second frame contain five commands, "Add Record" command use for add that information you entered in textbox and save it in your database and display it in data grate, And the "Delete" command used for delete the record in your database and data grate .the search command used to finding the required medicine, and the "View Remainder" use to display our medicine in data base table, and the Command "Need Store" use to viewing what's the need of store data base table, last command in third frame used to back and display the main form. In order to allow for future expansion, the system has been designed in such a way that will allow possible modification as it may deem necessary by the pharmacy management, whenever the idea arises.

III Proposed Methodology

Pharmacy management software is any system used in pharmacy that automate the pharmacy workflow. Pharmacist can access to their medical data and ability to securely share it. Pharmacy medicine supply

stores data, systemizes, and controls the use of medication process. The prime purpose of the PMS is to assist the pharmacist in the safe and effective delivery of pharmaceutical medicines. The pharmacies require some core capabilities and functions to perform their duties effectively. Before the eruption of the COVID-19 pandemic, pharmaceutical companies and their supply network partners had already been struggling with the question of how to increase visibility, agility, and resiliency across the end-to end supply medicine. One of the key technologies that is helping pharmaceutical firms build cantered supply medicine is the digital supply network, a cloud-based platform environment that connects all members of a pharmaceutical supply medicine. We propose a cloud-based pharmacy medicine supply management wherein the users are authenticated with the help of Jason Web Tokens by encoding the credentials provided by the users with the help of HS256 algorithm. When the user is authenticated, they can check the doctor’s schedule to view the appointment details for intimating about the medicine stocks. Based on the doctor’s approval, the pharmacists can demand for the particular medicine, and they can supply the same when it ordered. Modules of this pharmacy medicine supply are Authorization, Medical representative schedule, Medicine stock, Pharmacy Supply.



In authorization the intent of this micro service is to protect the system from anonymous access with the help of spring security. We implement token-based authorization wherein the generated token is stored in the client’s end. The token stored in the client’s end is automatically provided with the subsequent requests that are triggered from the client. In medical representative schedule the intent of this Microservice is to provide a doctor meet schedule for the Representatives of the company. Post Authorization using JWT, based on pre-defined doctor information, the microservice will map the available representatives for a period of 5 days. The start date of the schedule should be sent as input from the web portal. The pharma company has 3 Medical representative 5 doctors’ information who has given one slot (1 PM to 2 PM) every day. User looking to check up or visit can use search to see the availability

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of doctor in nearby location. If a user searches for a particular specialist they will search the available dates with the doctor's availability.

In medical stock This Microservice should be invoked from the Pharmacy Supply Microservice. It allows the following operations. It provides information on the details of the medicines like the medicine name, chemical composition, date of expiry, number of tablets target ailment. Integrate supply management into health system development. Develop an efficient mix of public-private partnership. Maintain medicines quality in distribution channels and ultimately increase access to essential drugs. Guidance and advocates for secure and efficient medicines supply systems to improve availability of and access to essential medicines.

In pharmacy supply Receives input from the web portal for the medicine count needed. Upon receiving this, this Microservice should interact with Medicine Stock service to get the current stock. This count should be split equally among all the pharmacists and the count should be returned to the web portal. If the stock count is lesser than the demand, then the stock count should be considered. The pharmaceutical supply chain is the means through which prescription medicines are manufactured and delivered to patients. But the supply chain network is actually very complex, requiring a number of steps that must be taken to ensure medications are available and accessible.

Conclusion

The pharmaceutical medicine supply is the means through which prescription medicines are delivered to customers. But the supply network is actually very complex, requiring a number of steps that must be taken to ensure medications are available and supply to customers. The effective implementation of this software will manage all the needs of PMS. It is capable of providing easy and effective storage of information related to activities happening in the stipulated area. The proposed system will become a milestone in the Covid situation for all pharmacist. In order to allow for future expansion, the system has been designed in such a way that will allow possible modifications it may deem necessary by the pharmacy management, whenever the idea arises.

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