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MEDICAL MANAGEMENT SYSTEM

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ABSTRACT

The medical management system is built in order to replace manual-based system to computerize. Here the system is expected to be efficient, useful, and affordable in implementing tasks that are instructed by the pharmacy manager. Software doesall things in pharmacy like sales, inserting new incoming goods, making bills, calculating taxes, and debt, also computes employee salaries, gives information about products, makes different statistics as best month to sell some product via provided charts, and also manages employee work. The purpose of the Medical Management System is to automate the existing manual system.

I. INTRODUCTION

This system also enables the workforce of the medical store to offer their services in a manner which is more efficient and systematic which also improves the medical store. This also helps in analyzing the performance of the store. The medical store management software can organize the daily activities in the medical store such as information about tablets, billing, details of stock and others. The medical store management software enables to maintain the details of purchase stock by thestore and the details of the selling stock by customer.

This software generates the automated bill for every sale and also generates the reports for the customer detail, sell and stock.The use of this system reduces the time and effort involved in managing inventory of the medical store. It also reduces the hard work involved in using paper for record keeping. The use of this system enables the managers to easily record the detailsof their suppliers and assess them whenever required.

II. LITERATURE SURVEY

The paper [1] says A major amount of time is taken for writing the order as the pharmacist needs to check through the stock balance and make an estimate of the amount to order based on Figures. As we know drugs are not supposedto be used after they have expired. This project work will notify the pharmacist about drugs that are near toexpiration, preventing those drugs from being sold and providing a solution to the earliest problems.

It is the user-friendly application for Pharmacists which reduces the burden and helps to manage all sections of Pharmacy like Medicine management and Billing etc. In Pharmacy, Billing management is the key process. Including safe data stores about medicine as well as fast searching, delete and update of medicines. This refers the pharmacy management system project highly minimizes time and resources by which, searching the medicine data you can get the data in quickest time. A summarized list of drugs dispensed to patient can be viewed for monitoring purposes. Also, PMS will be able to generate report on the list of drugs dispensed in the polyclinic for a given period.

The paper [2] Defined inventory control as an activity employed in maintaining the optimum number or amount of each stock item or is stock. It defined Inventory control system as a system that encompasses all aspect of managing a company's inventories: purchasing, shipping, receiving, tracking, warehousing, and storage, turnover and re-ordering. stated that inventory control in pharmacy operations is referred to the stock of pharmaceutical products retailed to meet future demands. The disastrous effects that would occur with improper or chaotic and manual inventory management were highlighted. Examples of such management include high levels of unnecessary inventory when sales forecast was not in line with actual transactions, no periodic review of inventory anddistribution process, safety stocks maintained were more than necessary and manual checking.

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III. MOTIVATION

The pharmacy management system is built for the sake of ensuring effective and clear data saving and manipulating as well as neat work on the pharmacy medical products. This refers the pharmacy a management system project will highly minimizes time and resource by which, searching the medicine data you can get the data in quickest time. Almost the resources are wise used since most actionsare done on the pharmacy system. Some of the resources minimized include paper, manpower and related things. The other thing is for storing data in secure way.

The real motive to make the medical management system is to make it more secure and trustworthy. To reduce number of errors which are essential in medicine field. The bills can be store for long time as well as the quantity of medicines can be displayed to be foundeasily.

IV. METHEDOLOGY

Data Collection

First, we must study about the requirement for creating medial store web server. It can be created using scripting languages like JavaScript, HTML, CSS, Python. For the collecting of data, we use Google, YouTube. We can refer research papers as well as blogs written by experts.

We perform a literature survey in the area of our partner medical store, to get the reviews from the customers so wecan provide them good web application.

A. Design Module

The system contains one major module with theirsubmodules are as follows:

1. Login/Register:

- It is a module that consist of information of person which can access by given credentials. Even If we do not have account, we can create the profile &registration in the database by using unique ID.
- The data will remain protected by this process.

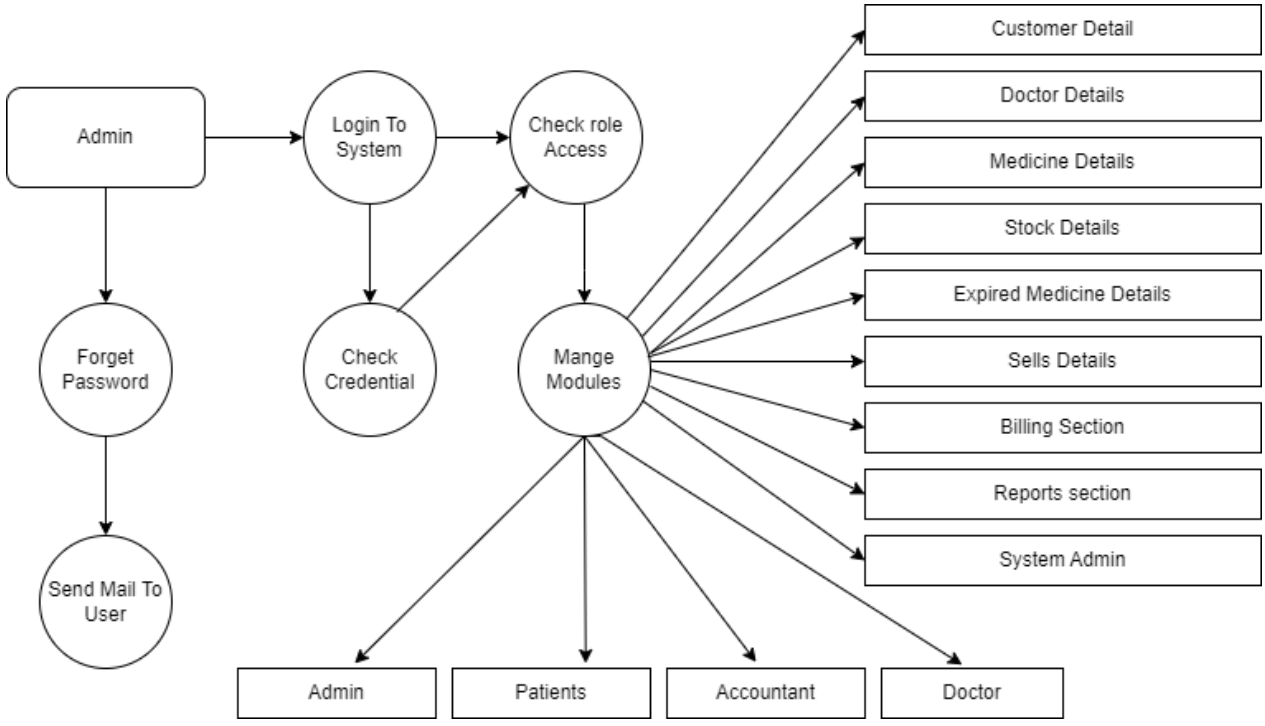

Fig. 1. Design of Moules

B. Web-Server Connection:

When we viewing the homepage in browser, we aremaking request to internet server which provide us web page as a response at user side. It is kind of medium to getpost data in between frontend and backend. A web server receives HTTP request from client/user like browser and provide HTTP response. On the software side, a

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web server contains some parts that control the working how web users access hosted files. Ata minimum level it requires an HTTP server. An HTTP server is software that understands URL's (webaddresses) and HTTP (the protocol used by browser to view webpages). An HTTP server can be accessed through the domain names of the websites it stores, and it deliversthe content of these hosted websites to the end user's device.

C. Database Connectivity:

i. Installation of DB browser SQLite:

DB Browser for SQLite is an open-source, high- quality visual tool for creating, developing, and modifying SQLite-compatible database files. Users and developers who want to create, search, construct,and edit databases will find it useful. SQLite is an embedded type of SQL database engine. Not like the most other SQL databases, SQLite does not contain the separate server process. SQLite reads and writes directly to ordinary disk files. A completeSQL database with multiple tables, indices, triggers,and views, is contained in a single disk file. It is very carefully tested and prior their every release, so theyare very safe.

ii. Changing the settings.py file:

The first step in setting our database is to inform Django that we have added an application to our projectthat requires some configuration. To accomplish this, go to our internal site directory's settings.py file and add the following line to the installed apps section.

iii. Migrations:

Django has its version control mechanism, which is known as migrations. When you make a change that requires any new dependencies to be installed, you must tell django from the command line. Each modification you make will be noted as a migration, which you can review later, to go back to prior versions. Use the following command to instruct Django tobegin creating our database- python manage.py migrate.

iv. Defining Models:

We need to define some models for storing information, now that our database has been set up. To do so, go to ourapplication folder and look for models.py.

v. Making Migrations:

We need to notify Django to update our database now thatwe've modified our model's file. We use the following command to implement this-python manage.py makemigrations Finally, we apply the following to execute the migrations-python manage.py migrate

In the terminal, type the following command-python manage.py sqlmigrate medical 0001.

This testing falls in black-box testing wherein knowledgeof the inner design of the code is not a pre-requisite and is done by the testing team. System testing is definedas testing of a complete and fully integrated software product. This testing falls in black-box testing wherein knowledge of the inner design of the code isnot a pre-requisite and is done by the testing team.

vi. Integration testing:

After each module has been tested individually, they were Integrated and the system underwent integration testing for its Correctness and was foundto be consistent.

A type of software testing in which the different units, modules or components of a software application are tested as a combined entity.

D. Backend Module:

The Django is free and open-source framework that is compatible with major operating systems and databases. The Django framework is used for the backend structure of your software, so you will still need to utilize other technologies to design the front-end part of the system. Mainly Django is considered as a developer friendly frame work easy to pick up, especially for those developers whoare comfortable with Python's syntax. It mainly uses the hashing technique.

E. Testing an application:

i. Unit testing:

Unit testing focuses on testing the modules of thesystem independently of one another and identify error.The Log in/Register module is tested for the customer is successfully logged in.

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The user is tested for the all facilities are used. The Homepage module is tested for proper login to access the system. The search module is tested for the user cansearching proper information.

ii. Performance testing:

Performance test was conduct to identify the bottlenecksinvolved in the system and to evaluate the amount of execution time spent on various parts of the unit.

Performance testing is a non-functional software testing technique that determines how the stability, speed, scalability, and responsiveness of an application holds up under a given workload.

iii. System testing:

System testing also ensures that the project works well environment. System testing is defined as testing of a complete and fully integrated software product.

V. RESULT

Medicines are most important thing in the human life. Andif they are managed well then it will make medical store successful. That's why store owner want a new website forhis store. We The problem came in the report generation and billing section as they were too old. As well as the interface provided is too old.

Most importantly they want it more for store management and easy to handle. We also want to invest our knowledge in making some Real-Time Management project. After the collecting information and getting sponsors requirements we are able to start designing the module with use of pen and papers. Then actually we start the programming for the creation of login page which will consist of username and password given by Admin.

The login page is written in HTML, CSS and JavaScript.The credentials were provided by us to the owner as an Admin via E-mail. Also, the Forget Password option willbe there in case user forget the password. By exercising that option, he can get the password on registered E-mailaddress. When admin create all profiles, the password will be saved in the database. So, to secure the password we use hashing technique here. We have created profiles for accessing credentials oftheir own. Those were following:

1. Admin profile.
2. Customer profile.
3. Accountant profile.
4. Billing section.

VI. CONCLUSION

Advance Medical management system which handles the essential data and saves the data and actually about the database of a Medical and its management. It is designed to ease the workload of medical shop professionals. This system helps in effectively managing the medical store or shop. It provides the statistics about medicine or drugs which are in stocks which data can also be updated and edited. It works as per the requirement of the user and has options accordingly. It allows user to enter manufacturing as well as the expiry date of medicine placed in stock and for sales transactions. This software also has the ability to print reports and receipts etc. Once this project will complete it will be better website for a daily use in a medical field. It is a way to collect themedicine information and distribute them in vary sectionsof dashboards. The main priority is patient's health and organization of medical store. It can definitely connect patient and doctors through it. This will be convenient to use for all people who going to use this. Also, we can provide feedback on that too. The survey we done in "Nagrik Medical, Umbraj" is crucial for building things inproject. The interface of their current software is too old, so we will provide them truly new interface with more functionality. Then another problem they had is in the billing section as they were unable to generate the bills most of times, we fix these problems in new version of website. They can now use it for billing as well as report generation. Bill and Stock feeding is most important. Thisis how our project will work.

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