WEB APPLICATION FOR ONLINE MEDICAL STORE

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***Abstract* - Internet in India has become so advanced in last decade due to the development of the technology. Smart analysis, auto-suggestions (medicine) are some of the examples of modern trends in Online Medical Shopping. These applications help the user to buy the preferred medicine & the same at time get some suggestions regard to his/her Disease. Online Medical Shopping is a web based alternative where the User can post his requirements and purchase the product E-Way. It also aims at going towards cashless transactions. This system helps the user to buy a medicine at any remote place and also it provides concise information about the prescribed Drugs. By using this portal we want to provide the most feasible way for any patient to get his therapy done. Additionally there's also an option for cancelling the product if the user wants to. It will impart a wider visibility to the customers. Thus, boosting the feasibility for user to higher level. Overall online medical shopping store will become an efficient, highly responsive and an extremely accurate-system.**

Keywords—Medical Store, Code Igniter, MVC, payment, add to cart.

I. INTRODUCTION

Internet in India has become so advanced in last decade due to the development of the technology. Online Medical Shopping is a web-based alternative where the User can post his requirements and purchase the product E-Way. It also aims at going towards cashless transactions. It will impart a wider visibility to the customers. Thus, boosting the feasibility for user to higher levels. Online Medical Store will create an platform for any user to easily access the Website and go through the description for either buying or just studying the flow. Additionally it helps those who are very much indulged in plastic cash by which they can easily use the site for their respective purpose.

Online medical system provides online medicines to the patient. Patients after login, decide to get drugs from shops. Once decided, he/she gets list of medicines, choose the medicines, and choose their description. If he/she sends prescription to medical store then medical store provides payment gateway service. But with this site we're aiming to provide the medicines without the juggle of ongoing Shops. We are using PHP as server scripting and Java script as a client script along with MYSQL for data storage to develop this website. This site will function as per user-perspective and will try to cater the needs of the today's Victims.

II. PROBLEM DEFINATION

Nowadays there are many Pharmacist store in local areas but they charge extra levy for every drug which the victim is unaware of additionally these medicine stores don't provide home to home delivery.

Online Medical Store rectifies the problem of Consumers of roaming here and there to buy the drugs. So, by using this Website user can buy medicines at any place remotely without the issue of availability of pharmacist store, with this site user can buy medicines on a discounted price what'll save the buck of the user purse. This site uses a secured, popular and well trusted Payment Gateway for product transactions. Also the User will have a broader view of nearly located Medical Shops and Hospital's by using our Integrated Dynamic Maps which is powered by Google Maps API. This site solve the old aged issue of the consumer's extra mile effort for buying the medicines by providing Home delivery.

III. LITERATURE REVIEW

The authors in [1] have discussed about the current status, challenges and future developments of eHealth in Bangladesh. In the paper [1], the authors discussed about the possible scopes of health care services in the country, the concept of eHospital, how government is contributing to move towards digitalized health care sector.

In most cases, people change their locations and do not move with the paper based medical records [3]. This wastes time and increase costs since more tests have to be repeated. Moreover, in case of emergencies patients do not usually have medical records at hand. A system that can serve patients without regarding the changes in patient's location and additionally, act as a backup during emergencies is beneficial.

The Author [4], have done a brief study about Telemedicine and they found out the short comes of the respective concept. Their motive was to find the pertaining gaps of Telemedicine and things associated with it.

The Poll Conducted by GoMedii.com [5] states clearly that 53% of the consumer prefers buying Medicines Online as compared to

43%.Hence from this Survey they came to a Decision that online Medical is feasible in today's Age[5].

The growth of the internet and deployment of personal computers has really facilitated the growth in telemedicine use [6]. Telemedicine can be used to offer medical consultation and diagnosis through e-health.

Since, the Study of all these Author's and Research Agency has led to the digitization of Pharmaceutical Concept. By emphasizing on all these Survey's and findings we came to a conclusion that Building an Online Medical Shop is very much possible now. According to all these Studies there are lot of Obstacles in building an Online Medical Shop though this Paper Clearly shows how to Built a Proper Online Platform for Medicines. The Paper demonstrates the current problems in locality and private sector for setting up a Digital Medical Shop and also find the possible way to solve them.

IV. PROPOSED ARCHITECTURE

The proposed medical Booking Store system will completely revolutionize the industry. Searching of products, order placing, billing and product stock can be maintained by a single click. The order placed can be easily tracked at any time. The payment of the order can also be done by credit cards.

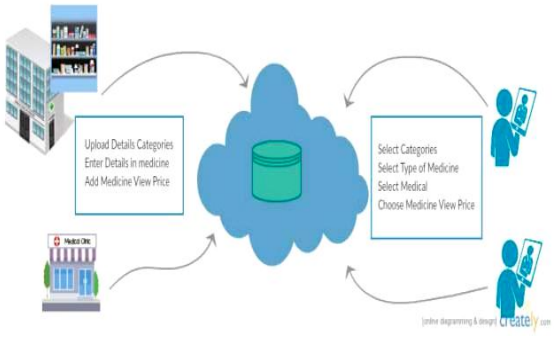

Figure 1:- System architecture

This medical Booking Store is essentially divided into six modules:

- **Administrator module:** Admin has been granted full access with complete permissions towards the system. He is essentially responsible for creating, deleting and modifying any product into the inventory. He has full authority to delete any user account. He can view and send reply to user's messages. Report generation can be done by admin by selecting a time frame from calendar.

- **Visitor module:** The visitor will be greeted on the home page. He can view about us page and signup/login page. He can navigate around the products but cannot place order.

- **User module:** When a visitor signup for the website, he becomes the user. Now he can not only search around the products but also can place order and do the payment. Change of password and logout are also displayed in this module.

- **Payment module:** Payment can also be done by credit cards. The software is so designed that it will not remember the credit card credentials.

- **Shopping cart module:** This module offers to add, delete and modify the products in the cart. After this shopping cart module will be redirected towards payment module.

The proposed methodology is depicted in the diagram below, here we use admin and user panel to interact with the system portal and access the products. Also, we have made a virtual database shown in below fig.1 for fetching and accessing the product's data.

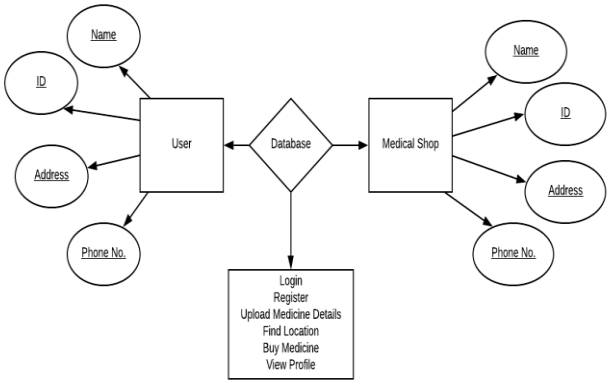

Figure 2: - ER diagram for Medical store

The model view controller pattern is the most used pattern for today's world web applications. It has been used for the First time in Smalltalk and then adopted and popularized by Java. At present there are more than a dozen PHP web frameworks based on MVC pattern.

Despite the fact that the MVC pattern is very popular in PHP, is hard to find a proper tutorial accompanied by a simple source code example. That is the purpose of this tutorial.

- **Code-Igniter Working Flow**

The pattern MVC[8] separates an application in 3 modules: Model, View and Controller Code Igniter[8] has a fairly loose approach to MVC as shown in the fig. 3[8]

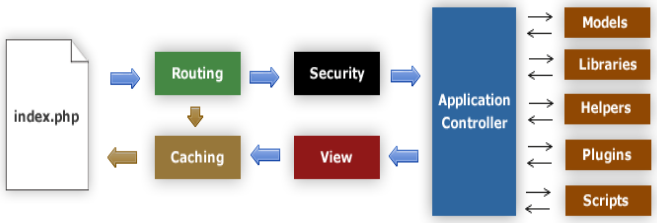

Figure 3:- Working Flow in code-igniter

- The **model** is responsible for management of data; it stores and retrieves entities used by an application, usually from a database, and contains the logic implemented by the application.

- The **view (presentation)** is responsible to display the data provided by the model in a specific format. It has a similar usage with the template modules present in some popular web applications, like Word Press, Joomla, …

- The **controller** handles the model and view layers to work together. The controller receives a request from the client, invokes the model to perform the requested operations and sends the data to the View. The view formats the data to be presented to the user, in a web application as an html output.

Hence, it's easier to built with. If you don't need the added separation, or find that maintaining models requires more complexity than you want, you can ignore them and build your application minimally using Controllers and Views. Code Igniter also enables you to incorporate your own existing scripts, or even develop core libraries for the system, enabling you to work in a way that makes the most sense to you.

V. SYSTEM DESIGN

Described in the Fig.3 which is followed by the medicine purchase through the Web app. This constrains as need the basic details about the different store in the different medicine as there in following architecture. The Site is designed such that User can access the functionalities in a smooth and interactive way. Cart Page is also designed in such manner which let the Consumer to have a proper control on its slotted Products for transaction. Also the design has made possible for the Admin to have a complete view of the Activities performed by User on the Website.

- **PRODUCT**: Product list to be maintained to display the details of the products to the customers.
- **USERS**: This system will have the information about the Users who is registered with the site. They can view and purchase the products.
- **ADMINISTATOR**: Administrator will have facility to add, delete, and modify products and he can view the order details, Sales Reports also.
- **ORDER**: Order will have the products chose by the customers.
- **CART**: cart contains the items that a user has selected for buying. The shopping cart page of the application will display a list of products selected by the user. User can add the items to their wish list by clicking the check box next to the items and then clicking on the add to wish list button.

In our E-Medical store the user will call the site for registration and additionally for sign-in purposes. Also the Admin will call the portal for the same accessibilities to the server. Generally the server will reply to the admin and user concurrently with precision as shown in Fig.4.

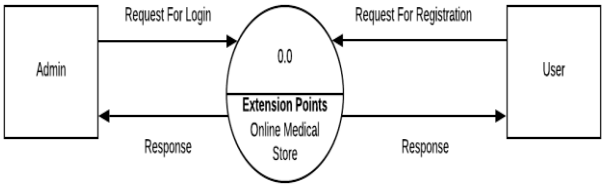

Figure 4:- 0 Level DFD for Online Medical Store

The admin has all the access of the website and database so that it can call, update, delete, modify the database as shown in Fig.5. Admin has to manage the usage reports of all the data flow for the portal.

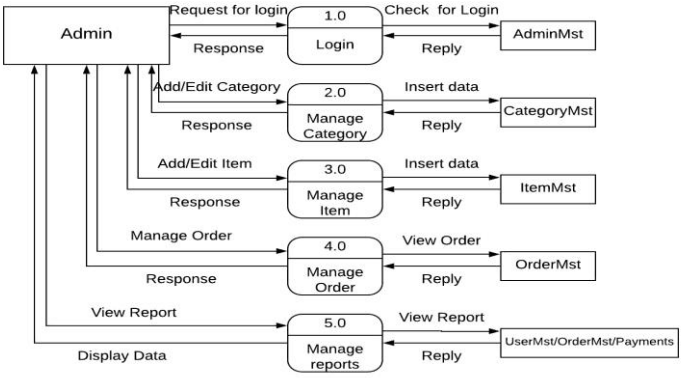

Figure 5:- 1st Level DFD for Admin Side

The site structure can be totally updated as per the user's need by admin. For maintenance of the site and general changes also Admin Panel must be built in precise way so that the basic data flow of the site doesn't hit the roadblock The fig.6 shows if there are new medicines the Admin has to add that product ASAP and vice- versa if a product has been used for too long it must be discarded respectively.

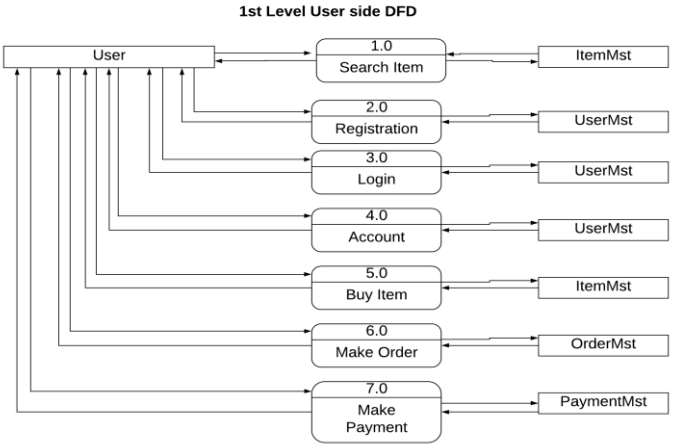

Figure 6:- 1st Level DFD for User Side

The site database is organized in such way that every aspect of data is requested in an organized structure. The admin and user send a request to the database by which the database will reply to it with specific answer. In first level of User side DFD as shown in Fig(1st Level DFD User) we elaborate the user's activities with the portal for e.g. - user will search for

products, login-registration, user's account management, etc. Also, the Payment gateway is also an important part of the website which should be applied in a proper way. The orders must be recorded in the database for future updating and etc.

VI. EXPECTED OUTCOME

The Below Example shows the integrated output of the Online-Medical Store with Code Igniter Framework[8]:

When a user clicks on a Medicine via our Url they get a brief description about the Prescribed Medicine as shown below in Fig.7. Also we randomly show them a bunch of related Drugs which are correlated to the ongoing product for user's ease.

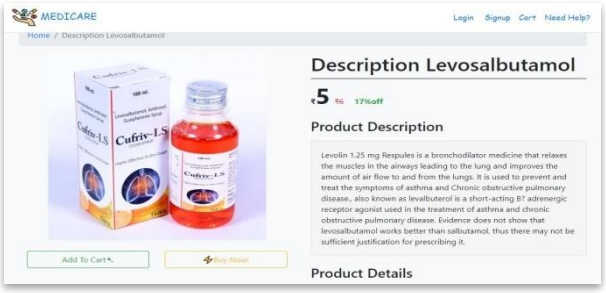

Figure 7:- Product Information

Now as the user will go-through with the description and want to buy it so we've added the Cart functionality as shown in below Fig.8.

Figure 8:- Cart Details.

After the User has added the medicine out of the wish they are guided to a well-acclaimed Payment Gateway like PayPal as shown in Fig.9. After this the user can either complete the transaction or abort as per his wish and return to Site Home's Screen.

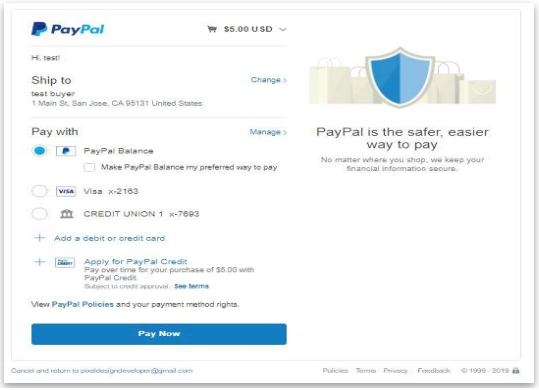

Figure 9:- Payment Gateway.

VII. CONCLUSION

Strategic planning clarifies what an E-Pharma project should do or focus on, with respect to the company's mission and the given business environment. It is essential to have a well thought out strategy for E-Pharma. As per the project requirement we have collected some useful design concepts from which our project implementation was executed with ease without any hurdles. The Framework was also helpful in making the architecture from which we were able to shortlist the vulnerabilities and possible hindrances while building the project on the road.

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