MEDIKLIX - An Android Application Based on Online Medicine Shopping

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Abstract

This paper implements an android based mobile app for online medicine shopping. This mobile app is developed to facilitate online medicine purchase by verifying the prescription uploaded by the user and to confirm the order. This system includes mobile application interfaces, pharmacist interface, database, web service provider for intermediate process to provide service through android mobile phone. When the user wants to make purchase through mobile app, necessary to upload the authorized prescription from a doctor and the prescription will be stored in the database. Then the user precedes the process by giving medicine name in the mobile application Chatbot interface. When the medicine is available in the pharmacy, the user allowed to add the medicine in the cart list, if the medicine is not available in the pharmacy, the mobile app will hold the process for the pharmacist response to post a suggestion and get confirmation for providing equivalent brand of medicine. The prescription uploaded by the user is compared with the cart list and will be approved by the pharmacist before placing the order. The domain of this system is android application. The n-gram technique is used in this system to speed up the searching process by the user typing medicine name in the user application interface. The drawback of existing system is online shopping or android apps are not user friendly. The proposed mobile app is user friendly by implementing the Bot Builder Framework for online medicine shopping.

Keywords: android, bot concept, web service, online medicine shopping

I. INTRODUCTION

Most of times patients may feel lethargic to visit the medical shop at the time of medicines needed. This leads to improper body conditions that makes them suffer lot which may cause late recovery from the disease/illness. So it is necessary to take proper medicines in proper quantity at proper time. In the system, we introduce an Android based application for the patients. This application will help the user to take proper medicines in proper quantity at proper time by chatting through CHATBOT concept. This Chatbot concept is automatically set by the application in the android domain. This android Chatbot application will help the user to interact with the system and to purchase medicines. The main goal is targeting towards smooth internal communication and functioning for the user along with other useful information. Expected Results Time and cost saving to reach people. Time saving for persons of remote places for their medicine search and also provides the convenience of searching for medicine anywhere at any point of time. The technique used in this application for searching medicine is N-Gram technique which plays a vital role in search of a particular medicine or product.

II. RELATED WORK

The project implementation is basically titled as “online medicine shopping system” through Chatbot concept and designed to purchase the medicines which is required for the patient. Paper [1] deterministic online medicine purchasing for geo located shops was titled by A. Thirugnanasamb and hamurthy, assistant professor, Adhiparasakshi engineering college, Melmaruvathur. The paper describes that the people can register their details through the android application. The project provides that many things of medicinal services and online registration of medicine details. The user can register the details, which will be stored in the medical databases. This application is developed for smart phone users, as we know how the smart phone market has evolved in the past few years, there are many operating systems available for smart phones but we opted the Android OS for developing this application because it has a very good user bank worldwide. This APP is compatible on different versions of Android, such as starting from the minimum SDK version of Android 3.0 (Honeycomb) to recent update Android 5.0 (Lollipop). The app functions well on the recent update of Android, but we support backward compatibility in view of the other users of Android versions.
### III. Modules of Application

**A. Database:**
Stores the necessary information about any medicine like name, product id, manufactured date, expiry date, quantity, dosage, MRP etc.

**B. Admin**
View all batch details of any medicine like MRP, sale rate, Purchase rate, stock etc.

**C. User**
Buy the medicine through online and transaction payment detail also. The Online Medical purchasing application is an online application for an medical shop. It is a virtual showcase for different types of medicine like health care, baby care, & home need products. Main aim of this project is to develop 24*7 medical service for users through online application. The Special thing about this project is it provides different types of medicine to purchase. The Internet Appliances takes care of the requirements put forward by the customers through web. Shows the information and description of the medicines. Provides the searching facilities based on N-Gram technique. Medicines are searched through the technique called N-Gram technique which helps the user to sort the medicine name by list. Admin receive orders of the medicines from the users through online mode. Database Keeps track of the medicine which gets Transacted each and every time by the user. It deals with monitoring the information and transactions. Provides the administrator facilities to update the list of medicines online. Provides the Credit Card interface for accepting and validating various Credit Cards through the Banks. Take care Securities for the Credit Card information. User trusted site. The Online Medicine purchasing application is an Online Website for an medical store. It is a virtual showcase for different types of medicine like health care, baby care, & home need products. Main aim of this project is to develop 24/7 medical service for users through online application. Paper[1] The Special thing about this project is it provides different types of medicine to purchase. It will reduce the amount of time spent by the employees of the company and also provides a convenient and efficient means of reaching to persons using N-Gram techniques. The main goal is targeting towards smooth internal communication with users and functioning for the user along with other useful information. Expected Results Time and cost saving to reach to people. Time saving for persons of remote places for their medicine search and also provides the convenience of searching for medicine anywhere at any point of time.

1) **PRODUCT:** medicine list to be maintained is to display the details of the products to the users.
2) **USERS:** This system will have the information about the Users who is registered with the site. They can view and purchase the medicines.
3) **ADMINISTRATOR:** Administrator will have facility to add, delete, and modify products and he can view the order details, Sales Reports also.
4) **ORDER:** Order will have the medicine chosen by the users.
5) **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 add medicine next to the items and then clicking on the next button, they can also specify the quality of the items.

### IV. Shopping Cart Interface

Shopping cart contains the items that a user has selected for purchasing. The shopping cart page of the Online Medicine purchasing application will display a list of medicines selected by the user. User can add the items to their wish list by clicking the add medicine button next to the items and then clicking on the next button, they can also specify the quality of the items. Functionalities: medicine to Shopping cart. Modify Products to shopping cart. Paper [2] Pia Tukkinen , Janne Lindqvist (2015), “Understanding motivations for using grocery shopping applications”, Understanding the motivations for using grocery shopping application for mobile, tablet, and Web clients which provides a wide range of the features explored in previous research prototypes and small scale trials, it offers a good representation of a real world deployment of the various ideas presented in the literature. The service can be used both for online shopping and for enhancing the traditional in store shopping experience. It also combines the shopping experience with online cooking recipes. The methodology used for this grocery shopping application was data coding and analysis of open ended answers were conducted using the principles of grounded theory. The outcome referred from this paper was Different types of users benefit from different features also found that the shopping application was used for inspirational purposes. The challenges which faces those situations are the recruitment method which did not reach all users or the whole population only those who had signed up and paid attention to the newsletter. The future scope of this paper would be the Future systems could gently guide people toward healthier eating habits. For example, recipe selections and shopping list data generated by the more active users could be used to create recommendations and pre filled templates for users who have less time for planning and shopping. Compared to this, online medicine shopping provides medicines through Chatbot concept which reaches the people fast and technique used in this project was N-Gram technique.
Paper[3] Designing of Android Mobile Based System Using QR Code". International journal of innovative research and development, ISSN 2278 – 0211 (Online) by Gresham Muradzikwa, Noreen Sarai, Weston D. Govere, Dumisani Sibanda (2014). This paper explores a solution to create a cashless mobile payment system. The aim is to provide the most cost efficient and secure alternative to current systems. The methodology used in this application was developed using Java Eclipse and android Eclipse. The system is broken up into three parts, a visual QR code, Qpay Android application and a payment server. The outcome referred from this paper was Mobile payment system based on QR codes for mobile users to improve mobile experience in conducting mobile payment transactions. Unlike other existing mobile payment systems, the proposed payment solution provides distinct advantages to support buy and sale products and services with QR codes. The challenges that were faced are releasing a QR code with an error, if that code is a direct code. The QR code goes to a malformed URL. There is also a risk of overloading the environment with those whacky looking squares. Without a clear call to action, they are just visual noise. The future scope can have chances of implementing new technology which are high because having QR codes one can be innovative up to the extent of embedding new technology. Compared to this paper, online medicine shopping was implemented with the Chatbot concept that are a basic chatting method which are not visually noisy.

The existing system is not much efficient and reliability for getting medicines from the Medical Shop. Now the existing system is subjected to close study and problem areas are identified. The designer now functions as a problem solver and tries to sort out the difficulties that the enterprise faces. The existing systems are directly going to get the Medicines from the medical through online, the existing system are not much user friendly.

V. ARCHITECTURE

This system is used to purchase medicine online by implementing CHATBOT concept. Once the user login to the system, user need to upload prescription. Then the user need to type the keyword which will fetch the data from the database. The medicine name is the keyword for fetching the medicine details this is done by using the CHATBOT concept and the prescription verification is done manually by the admin after the medicine is added to the cart. In another case if the medicine is not available the suggestion list will be provided if the user satisfied with the suggested medicine then it can be added to the cart. Then order will be placed and the receipt for the medicines purchased will be displayed.

VI. TOOLS

Android Eclipse is the basic tool used to develop the application. World is contracting with the growth of mobile phone technology. As the number of users is increasing day by day, facilities are also increasing. Starting with simple regular handsets which were used just for making phone calls, mobiles have changed our lives and have become part of it. Now they are not used just for making calls but they have innumerable uses and can be used as a Camera, Music player, Tablet PC, T.V., Web browser.
etc. And with the new technologies, new software and operating systems are required. Operating system have developed a lot in last 15 years. Starting from black and white phones to recent smart phones or mini computers, mobile OS has come far away. Especially for smart phones, Mobile OS has greatly evolved from Palm OS in 1996 to Windows pocket PC in 2000 then to Blackberry OS and Android. One of the most widely used mobile OS these days is ANDROID. Android is a software bunch comprising not only operating system but also middleware and key applications. Android Inc was founded in Palo Alto of California, U.S. by Andy Rubin, Rich miner, Nick sears and Chris White in 2003. Later Android Inc. was acquired by Google in 2005. After original release there have been number of updates in the original version of Android. Operating system have developed a lot in last 15 years. One of the most widely used mobile OS these days is ANDROID. Android is a software bunch comprising not only operating system but also middleware and key applications. After original release there have been number of updates in the original version of Android.

VII. CONCLUSION

The system provides Automatic generation of medicine details in the chatbot interface. User friendly mobile app using chatbot interface. Manual verification of prescription by the pharmacist. According to the time limitation the medicine should deliver to the certain location. Suggestion must given to the user when the medicine is not available in the stock and when the medicine is available, then it must be added to the cart in the proposed system. The main idea is to have user-friendly android application with suggesting medicine and giving details about the requested medicine which is not available at the time of order will be intimated to the user when it is available at the stock.

VIII. FUTURE WORK

The future scope of this project is implementing QR code technique. The application should be user friendly with accurate medicine details. And also, changes can be made by providing some provisions to accept different kinds of payments such as credit cards, debit cards, etc., the system can be further extended to link multiple medical shops to enhance the buying experience of users.

REFERENCES

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