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Mobile based Medical Health Application for Common Medical Treatment

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Abstract:- The expanded lifespan of people over the previous century can be essentially credited to propels coming about because of clinical research. As in this century humans are busy with their work life and don't have that much time for the treatment of the common disease or to know about the Government Schemes, the facilities that are provided by the government in their hospitals and medical store. As their time is saved that's why they go to private sectors and get the same treatment at higher price and get the same medicine at higher price. Most of them also don't know that government also provides most of the branded products at a subsidized rate. The current research discusses the problems in environment and suggested its solution through a systematic development of an application used for common medical treatment is presented as an outcome of the study.

Keywords:- *Medical Treatment, Mobile Application, Software Development.*

I. INTRODUCTION

The idea behind the proposed application is to create awareness regarding various common diseases. As nowadays the new generation does not know about the homemade remedies for the common diseases for that they have to go to hospitals or clinics. There is a lack of awareness among people about what to do when they come across certain symptoms/disease. In the present study not only homemade remedies are there but also data about 24/7 Medical shop 24/7 Hospital 24/7 clinics and 24/7 doctor which will be easier and accessible for users is provided If the user is purchasing the medicine from the app they will have to upload the prescription of the medicine and the purchase medicine will be delivered to the doorstep of the user. Application will also display the Government hospitals and pharmacists so that the user will get cheap and best consulting. The same medicine at a lower cost than the other private medical shops as the users are not that much aware about the Government medical facilities and hospitals. The user will be given their own login details so that their details will be saved and they don't have to fill the details and their records will be saved for any future check. If the user will purchase medicine from proposed app they will get offers and token on every purchase of Rs250 they will get 1 coin which equals to Rs 0.25 which can be redeemed on their next purchase. Further section focus on the systematic development of proposed app.

II. PREVIOUS STUDY

Nowadays people are not aware about the homemade remedies for the common disease. There are some diseases which can be cured at home only by knowing the correct treatment. People in this century don't have time to search for the homemade remedies. That is why proposed application is built so that user can get the accurate and correct treatment of the disease. People also don't know that treatment in Government Hospital are done at very lesser cost than the Private Hospitals and the medicine that they buy from the Private Medical Store are at a very high price as compared to the Government Medical Store as the same medicine will be given at a lesser price rate the only difference is that the manufacturing of the medicine is different and no other difference is there.

MedicoPort that is a clinical internet searcher intended for the clients with no clinical aptitude. Since MedicoPort is intended to help individuals looking for data about wellbeing on the web, our objective clients are not clinical pros who can adequately utilize the uncommon language of medication and access clinical databases [1]. EMERSE (the Electronic Medical Record Search Engine) is an instinctive, amazing internet searcher for nothing content archives in the electronic clinical record. It offers numerous choices for making complex inquiry questions yet has an interface that is sufficiently simple to be utilized by those with negligible PC experience. EMERSE is perfect for review diagram audits and information deliberation and may have potential for clinical consideration also. Information mining strategies have looked to address parts of this issue, however the procedure normally includes specialists with cutting edge specialized abilities [2].

Existing web search tools frequently can't deal with clinical inquiry well since they don't consider its unique requirements. Therefore, now and then likes to present long questions, portraying its indications and circumstances in plain English and get complete, significant data from indexed lists. Here author tells about the MedSearch which is a specific clinical web index, to address these difficulties. It gives differentiated indexed lists. It proposes related clinical expressions to help the client rapidly digest indexed lists and refine the question. The outcomes show that MedSearch can deal with different clinical questions successfully and proficiently [3]. Scanning for clinical data on the web is an entryway and significant. The first keen clinical web crawler iMed that widely utilizes clinical information. It utilizes a few

key procedures to improve its ease of use and output quality. In this first, it utilizes a survey based inquiry interface to direct searchers to give the most significant data about their situations. Second, client's clinical information to consequently frame different inquiries from a searcher's response to questions. Third, all the iMed structures query items into a staggered chain of command with expressly checked clinical implications to encourage searcher's review [4].

Find online wellbeing data web clients regularly utilize a web crawler, for example, Google or Yahoo!. Authors have considered Yahoo! Search movement identified with the 23 most normal diseases in the United States. The goal was to test three potential connects of Yahoo! Diseases search movement evaluated malignancy rate, assessed mortality, and the volume of disease news inclusion and to contemplate the periodicity of and tops in Yahoo! News reports related with the particular disease types were recognized utilizing LexisNexis 'US News Database' which incorporates in excess of 400 national and local papers and an assortment of newswire administrations [5]. HealthCyberMap is a semantic web venture that targets mapping chosen portions of wellbeing data assets in the internet in novel semantic approaches to improve their recovery and route. Permitting a semantic web internet searcher to derive understood implications not straightforwardly referenced in either the asset or its metadata. In this a relative assessment of the new motor dependent on significance measurements is additionally proposed [6].

Web has become an essential data asset about illnesses and medicines for both clinical and non-clinical clients. Right now search is by a wide margin the most well-known interface to this data. It is hence important to discover how well web crawlers work for indicative questions and what variables add to progress and disappointments. Among maladies, uncommon ailment speaks to a particularly testing and along these lines intriguing class to analyse as each is uncommon, assorted in side effects and as a rule has dissipated assets related with it [7]. A site quality appraisals (WQA) instrument was created utilizing criteria identified with the nature of the data to be proceeded in the site notwithstanding an evaluation of the comprehensibility of the content. The reproducibility of the WQA instrument and its prescient legitimacy were evaluated right now [8]. During the previous 2 decades, the web has developed to turn into a need in our everyday lives. Specifically, it is to look at the impacts of web indexes that convey sites underscoring on the professional side of inoculation with those concentrating on the con side and with typical Google as a benchmark group [9].

Clinical data recovery frameworks help bolster social insurance specialists in indicative and treatment choices through the administration of a lot of clinical information. Right now, propose a multimodal look interface for clinical articles to give better investigation devices to finding and clinical case recovery. The basic system entered the Medical ImageCLEF 2013 test and depends on best in class data recovery, picture recovery and information combination procedures [10]. Looking into the subtleties techniques, results and examination of the CLEF 2015 eHealth Evaluation Lab are studied. The issue considered right now was to recover site pages to help data needs of wellbeing shoppers that are gone up against with a sign, symptom or condition and that look for data through an internet searcher with the intend to comprehend which condition they may have. As a piece of this assessment work out, 66 inquiry themes were made by potential client's dependent on pictures and recordings of conditions [11]. Authors have proposed a question extension strategy which depends on clinical semantic information and a theme model. Clinical semantic information is developed by utilizing clinical terms separated from United Medical Language Systems(UMLS) and Wikipedia articles. The proposed techniques accomplished 0.2327 and 0.3033 in the induced NDCG on Tasks. [12].

Expanded enthusiasm for the region of Artificial Intelligence all in all and master frameworks specifically. Master frameworks are quickly developing innovation. Master framework is a part of Artificial Intelligence which is greatly affecting numerous fields of human life. Authors had given a diagram of this innovation and will examine a study on numerous papers done in wellbeing utilizing a specialist framework [13]. Optoelectronic innovation assumes a significant job in clinical finding. In the paper a survey of some optoelectronic sensors for intrusive and non-obtrusive human wellbeing test is introduced. The study presents likewise own exploration identified with creating of instruments for human breath investigation. Breath test unit and three vaporous biomarkers analyzer utilizing laser assimilation spectroscopy intended for clinical diagnostics were portrayed. The analyzer is furnished with sensors for CO, CH4 and NO location. The sensors work utilizing multi-pass spectroscopy with frequency balance technique (MUPASS-WMS) and cavity improved spectroscopy (CEAS) [14].

Mobile Health (mHealth) is a mobile technology that supports mobile health care. mHealth is widely used in health care sectors and has become very affordable for health care professionals.1 It has also become easier for a user to access web-based applications and websites. Instant information access from handheld devices such as smartphones and tablets is an alternative to computer systems that were used before the advent of such devices [15]. The research aims to review the attempts of researchers in response to the new and disruptive technology of skin cancer. Applications studied in terms of evaluation and benchmarking, in order to identify the research landscape from the literature into a cohesive taxonomy [16].

Mental health disorders affect approximately 20 per cent of adolescents in the developed world and early intervention is essential in order to improve outcomes for young people. The aim of this study was to explore adolescents' needs and concerns in relation to mental health mobile apps. Five focus groups were conducted with young people aged 15–16years (N=34, 60% male [17]. Healthcare providers have known for many years that an ounce of prevention is worth a pound of cure. Recognizing the cost-saving potential of early detection, many of the health improvement trends have become incentives built into both the Affordable Care Act and private insurance company policies [18]. The article reports the development of the Piezofilm yarn sensor for healthcare

applications, and investigates its performance by monitoring cardio-respiratory signals of human body over an extended period of time. Piezofilm yarn sensor was developed by embedding the thin PVDF strips within the textile yarn. Apart from the general healthcare, this sensing fabric could also be used in studies related to biorhythms, sports, detection of sleep apnea and heart problems [19]. Mobile devices are increasingly becoming an indispensable part of people's daily life, facilitating to perform a variety of useful tasks. A cloudlet-based mobile cloud-computing infrastructure to be used for healthcare big data applications is described. The techniques, tools, and applications of big data analytics are reviewed [20]. Human context recognition (HCR) from on-body sensor networks is an important and challenging task for many healthcare applications because it offers continuous monitoring capability of both personal and environmental parameters. Authors have proposed a new classification of the energy-efficient mechanisms for health related human context recognition applications. Also, provided a qualitative comparison of these solutions in terms of energy-consumption, recognition accuracy and latency [21].

Healthcare applications in IoT systems have been receiving increasing attention because they help facilitate remote monitoring of patients. Authors have proposed a reliable oneM2M-based IoT system for Personal Healthcare Devices. The proposed oneM2M-based IoT system for Personal Healthcare Device is constructed, and evaluated in various experiments [22].

III. LIMITATION IN EXISTING SYSTEM

- Can, A. B.et al., (2007) [1] developed MedicoPort. In this application mapping of the keywords entered by the user is ambiguous.
- Hanauer, D. A. (2006) [2] had made EMERSE (The Electronic Medical Record Search Engine) In this application the methodology involves expertise.
- Mourão, et al. (2013, May) [10] developed Multimodal search interface. In this application the drawback of this is that it has Medical Image CLEF 2013 Challenge.
- Luo, G. (2009, March) [4] made imed which is a medical search engine. In this drawback is that it
- provides info of limited and most common diseases.
- Jo˜ao Palotti., et al., (2015) [11] in this they have researched on CLEF 2015 eHealth Evaluation Lab. In this drawback is that to recover website pages to help data needs of wellbeing purchasers that are stood up to with a sign, side effect or condition and that look for data through a web index, with the mean to comprehend which conditions they may have.
- Seung-Hyeon, et al., (2016) [12] in this they have basically described the cooperation of the CBNU group at the TREC Clinical Decision Support track 2015.In this downside is that they have proposed an inquiry development technique dependent on a clinical semantic information and a point model.

IV. PROBLEM FORMULATION

Looking for clinical data on the web is a difficult assignment for customary web clients. Frequently, clients are questionable about their accurate clinical circumstances, are new to clinical wording, and thus experience issues in thinking of the correct pursuit watchwords.

In this proposed system software application, the token system which helps the user to buy cheaper medicine as the tokens will be provided which can be used when the user orders the medicine from this app. This token system will work in the way when user order the medicine from this app and the total cost of medicine should be above the minimum cost for the medicine. In this application provided a homemade remedy for the common diseases as per user requirement. Application will also provide nearby Government hospitals and Government medical store or if not possible then nearby Private Hospital and Private medical store that are open for 24 hours. If user need an on spot doctor consultant, then it will be also available there. The user will also get doorstep delivery when a picture of prescription will be uploaded.

A. Objective of the study

1. To generate awareness for homemade remedies for common diseases.
2. To inform the user about the Government Medical Schemes that provide cheaper rates of medicine and the Government Hospital Schemes that provide treatment to users at much less price compared to that of private hospitals.
3. To tell the user that he/she can get in contact with the best certified doctor so that user will consult the right doctor at the right time saving his/her time and money and getting the best treatment when required.

B. Scope of the study

1. The application can be utilized on android gadgets that makes the client increasingly supportive as the vast majority of the clients use android telephones.
2. The database for the online Doctor and information related to government private hospitals will be available all over India but the Homemade remedies for common diseases will be provided all over the world.

V. PROPOSED METHODOLOGY

With the advent of technology, people have started using mobile phones for all basic needs like food ordering, shopping, groceries, bookings, etc. In this increasing technology, people have started finding information about their health issues also. etc. But there is no application which gives remedies from things which are available in every home. These remedies are natural. Along with providing natural remedies, this project also provides information about certified and authentic doctors and hospitals also. This information will come in handy for people who are new in the city, or who want to consult a new doctor. This platform will also provide information regarding government and private hospitals. Not only hospitals, this platform will also give information about the nearby medical

shops and 24 hour open medical shops, also provide lab tests and everyday essentials at subsidized rates.

This platform will fulfil all the medical needs of a common person. There are no applications which provide all this functionality in a single application. This application will become the default choice of all the people for their medical needs. Fig.1 shows flow chart of the same.

VI. RESULT DISCUSSION

This section focuses on test evaluation and result obtained from the new system. Table 1 explains about the various test cases used for verification and validation of the new system. In this table it ensures that the user is getting correct details of doctors, nearby Government/Private hospital/medical store, delivery details for home delivery of medicine and healthcare product is filled correctly.

The final result visualization is expressed through Figure 2 to Figure 7. Figure 2 shows the login page where existing user will directly login to the app with their login credential

Figure 3 shows the registration page where new user has to register themselves. Figure 4 shows the home page of the application where user have to select the desired option. Figure 5 shows the types of common diseases where user will select the disease and will be generated with homemade remedies for that disease. Figure 6 shows the 24*7 available doctors where you can call them and get help for any medical illness.

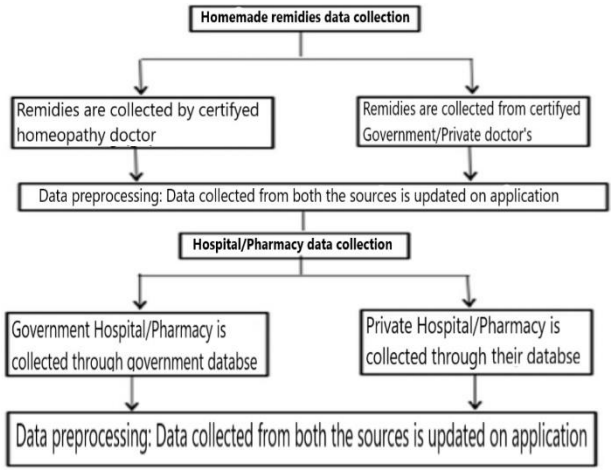

Fig 1. Flow chart of the proposed system model

Test case	Test Case Summary	Prerequisites	Test procedure	Test data	Expected Result
1	To check if the user is getting the correct contact number of 24*7 doctors..	User is registered to this application.	Log in to the website with your credentials (username and password).	List of available of available 24*7 doctors.	Correct contact numbers of the 24*7 doctors.
2	To check if the user is getting the best hospital nearby according to the treatment required.	User is registered to this website. User has entered his/her correct location. User has entered his medical requirement.	Log in to the website with your credentials (username and password). Enter your location and treatment required.	List of available addresses of nearby hospitals.	List of addresses of nearby hospitals is shown according to the treatment required.
3	To check the details are filled for the home delivery of the medicine or for the healthcare product.	User is registered to the application. User has entered the correct mobile number, address, landmark, Pin code. User has uploaded the prescription for the medicine.	Log in to the website with your credentials (username and password).	Check the availability of the medicine and the product. Check the location for delivery	Prescribed medicine should be available. Healthcare Product that user has selected should be available.
4	To check the details are filled for the home for the lab test	User is registered with the application. User has entered the correct mobile number, address, landmark, Pin code. User has uploaded the prescription for the medicine.	Log in to the website with your credentials (username and password). Enter the test want to be done.	Check the availability of the staff to collect the blood sample	Availability of the staff should be presence.

TABLE I. THE TEST CASE OF THE APPLICATION THAT WILL ENSURE THAT USER IS GETTING THE CORRECT DETAILS

Fig. 2 for existing users

Fig. 3 for new users

Fig. 4 Home Page

Figure 7 shows the form for delivery details for the medicine written in the prescription which will also has to be uploaded by the user.

Fig. 5 Types of Common Diseases

Fig. 6 24*7 doctor's

Fig. 7 Delivery details

VII. FEATURES OF NEW SYSTEM

This section focuses on features provided by proposed system. These are as below:

- User will get Homemade remedies of the Common Diseases.
- User will get 24*7 doctor's help with correct details.
- User will get nearby Government/Private Hospital's.
- User will get nearby Government/Private Medical Store.
- User will get home delivery of the medicine or the products that have been ordered from the application.
- User will get medicine and products at a subsidized rate.
- Blood will be collected at the doorstep whichever the test user has selected for the Lab test

VIII. CONCLUSION

Common illnesses are the widespread infectious disease that are affected to millions of people. Due to not getting the correct information of the common illness, people go to doctors and then doctors give them medicines, which they may have trouble in the future. People should be provided with correct homemade remedies for the illness as these homemade made remedies will not be harmful for them.

As there are very less number of Government Hospitals/Medical store. Due to which people have to go to the private hospitals/medical store and get the treatments/medicine at a higher rate. If there will a government hospitals and medical store in every locality like private sectors are then people will get the best treatments and medicines at a cheaper rate this will also increase the revenue of the government and for the government also it will easy to maintain the discipline and the facility of the hospitals and through which every person in India will get a better treatment.

With the occurrence of present, upcoming problems current study provides a solution by developing proposed app where user will get all the information at one platform without wasting their precious time. This application will provide solutions through contacts received via health ministry and suggesting them to work on this. The whole data will be provided by this app and will be shared through the application to the user so that they will be provided with homemade remedies according to the user requirement, nearby Government/Private hospitals/medical store, best certified and authentic online Doctor with the correct information.

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