

Online Medicine Health Care Service

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Abstract— Most of times patients may not feel to visit the medical shop at the time of medicines needed. This leads to improper body conditions that make them suffer a lot which may cause a later recovery from the disease/illness. So it is necessary to take proper medicines in proper quantity at proper time. In this 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. Time saving for persons from remote places for their medicines search and also provides the convenience of searching for medicine anywhere at any point of time.

Keywords— Hardware: - Mobile Phone and Laptop; Software: - java runtime environment (JRE), SOL, A server.

II INTRODUCTION

Usage of mobile applications and wireless networks is growing rapidly at different sectors in the world. Mobile healthcare application is devotedly accepted by the healthcare organizations and also by patients. The reasons behind accepting mobile healthcare applications are user friendly, reliable, low cost, time efficient, mobility etc.

Though the use of mobile applications is rising day by day in the healthcare sectors still those applications are not completely secure to prevent disclosure and misuse of patient's sensitive data. However, security issues in healthcare applications get attention by many organizations. In this thesis we have presented an integrated architecture for secure mobile healthcare system.

This application provides management of patient medical records in a regional environment. Our mobile application is developed for Android platform. This solution is secure enough, because it fulfills important security requirements: integrity, confidentiality and availability.

The use of information technology within the healthcare domain is increasing day by day all over the world. Previously, mainly developed countries were using computers and their devices within the healthcare domain. But nowadays developing countries are also moving towards it. Coverage of mobile networks in most of a large area in a country makes everyone interested to use mobile phones. And within the last few years the uses of smartphones drastically increased.

The area of healthcare is involved with handling of patient sensitive data. Security and privacy of these data is very important. While doing online transfer of these secret data over the public network, it can be viewed and/or modified by the attackers. It can be also accessed by unauthorized persons who can break privacy of the patient's data. The main goal of this project is to develop an m-healthcare application that will provide secure, trustful and reliable communication for different communities in healthcare area. We have planned to develop an application that will provide interface to both physicians and patients.

I.

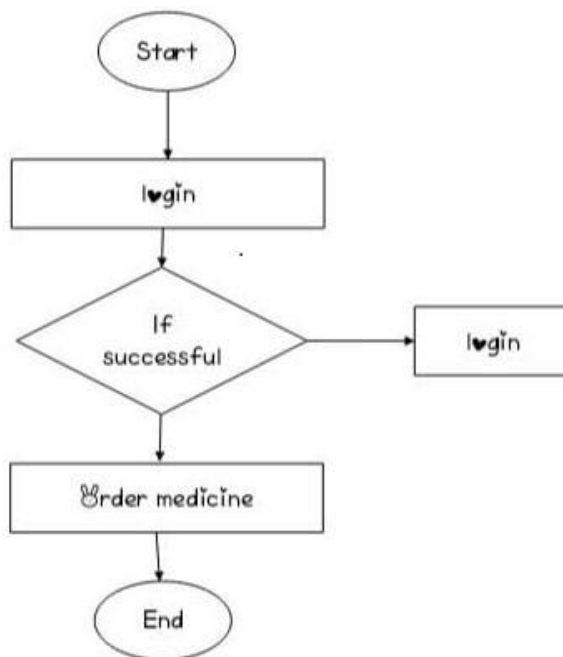
II PROPOSED SYSTEM

In this research, we have used design science research methodology (DSRM). As per Kanet al. "The DS process includes six steps: problem identification and motivation, definition of the objectives for a solution, design and development, demonstration, evaluation, and communication". The main reason why we choose this method is because we have followed the same steps in our research. First we have identified the problem area, and then

we have defined the objectives for the solution of the problem with studying the related technologies. After that we have designed a secure m-healthcare application. We have also developed a prototype of the design and then we have demonstrated our solution. We have tested the application in lab environment. The last step of the DSRM is the future work of this research.

A. DataFlowDiagram

First we click on Start. Go to the Login if login successfully done, click on to order medicine, and buy the medicine with the help of medicine name or cover of medicine.



B. EntityRelationshipDiagram:

The average healthcare organization is struggling to create compelling user experiences. They are also grappling with how to craft beautiful and usable designs that delight and amaze their users. User-centric healthcare website design focuses on web design techniques meant to deliver an enhanced user experience to users looking for healthcare products or services. An effective healthcare website design strategy incorporates mobile responsiveness, marketing goals, and complies with ADA regulations.

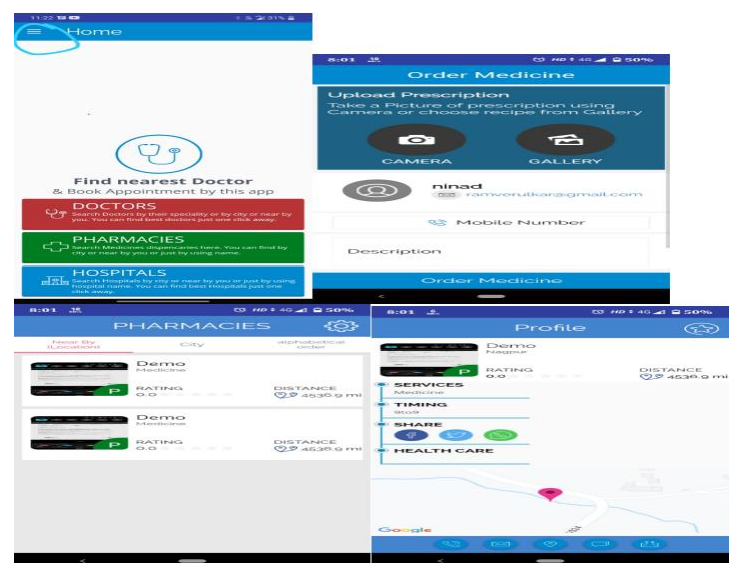
To ensure adequate, qualitative, preventive & curative healthcare to people of the State. To ensure healthcare services to all particularly to the disadvantaged groups like scheduled tribes, scheduled cast & backward classes.



IMODULES

Objective:

In a post-COVID world, healthcare providers that used to rely on being a patient's only option will live and die on a hill that companies in other industries have been dying on for over a decade—their website, specifically the user's experience (UX) of that website. There is a complete disconnect between what healthcare organizations want when it comes to healthcare website design strategies & implementation and what users expect.

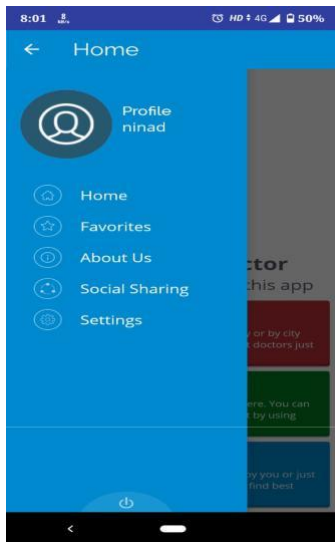


OnlineMedicineApp:

IVUSES

Afterloginthecartcontainstheitemsthatauserhas selectedforpurchasing.Theshoppingcartpageofthe

OnlineMedicinepurchasingapplicationwilldisplayalistof medicinesselectedbytheuser.

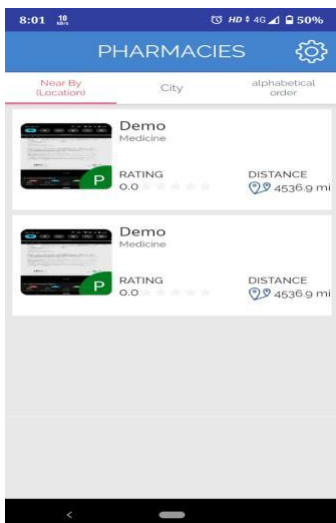


Application Usage:

1.52%ofconsumerssearchmedicalprovideronlinebefore engagingwithhospitals.

2.81% ofconsumersareunhappywiththeirhealthcare experience.

3.95% ofhealthcaremarketingexecutivesbelievedtheir company'swebsitewastheprimarydriverofnewbusinessfor hospitalsin2017.



1. HealthAppwasfoundedtoimprovemedicalassistanceandpatient recoveryprocess,bydevelopinggamifiedapps.
2. HealthAppengagespatientsintothetherapyandconnectswith healthcareprofessionals.
3. HealthAppprovidesrealtimedataandanalysisitoadjusttreatment, actionsanddecisionsforabettercare.
4. Theycansendemailtoanask-an-expertservice,tohealthcare professionals,andeventtootherpeoplewithsimilarhealthproblems.
5. Itassistindividualsinmonitoringtheirrownhealthconditions,such asheartdisease,diabetes,pregnancy,mentalhealth.
6. Italowhealthcareproviderstoshareandreportonapatient's personalhealthrecordsremotely.
7. Tohelpkeeptrackofalpurchasedmedicines.

VCONCLUSION

Ifyoudomaintainahhealthylifestyle,therearemanybenefits,and notonlyforyourbody.Somearemaintainingahealthyweight, reducingriskofdevelopingheartdisease,increasingenergylevels, assistingahealthyimmunesystem,andithelpsyoutobemoresocial. Inconclusion,weneedahealthylifestyletobuildupahealthyimmune systemandtoavoiddisease.Here,“maintain”meansahealthyimmune systemtoprotectyourbody.

Inconclusion, we need ahealthylifestyle to build up ahealthyimmunesystemandtoavoiddisease.Here,“maintain”means ahealthyimmunesystemtoprotectyourbody.

MobiletechnologyandmHealthapplicationshaveaffectedtheway nursingeducationandpracticeis carriedout.Nursesaremoving towardempoweringtheirpatientsusingmHealthapplicationsinorder toimprovepatients'healthandassistthemtomakehealthylifestyle adjustments.Byincreasingtheirpatients'awarenessandusability, theseappsmaysupportproactiveandvidence-basedhealthcare.In nursingeducation,nursingeducatorsandstudentsareutilizingmobile technologyindifferentwaysresultinginreportedenhancementinthe nursingstudents'academicperformance—bothintermsoftheir acquiredskillsandknowledge.

VIREFERENCES

- [1] M. Haus, M. Waqas, A. Y. Ding, Y. Li, and S. Member, "Security and Privacy in Device-to-Device (D2D) Communication: A Review," no. December, pp. 1–27, 2016.
- [2] J. Liu, H. Shen, and X. Zhang, "A survey of mobile crowdsensing techniques: A critical component for the internet of things," 2016 25th Int. Conf. Comput. Commun. Networks, ICCCN 2016, 2016.
- [3] J. Dutta, F. Gazi, S. Roy, and C. Chowdhury, "AirSense: Opportunistic crowd-sensing based air quality monitoring system for smart city," in 2016 IEEE SENSORS, 2016, pp. 1–3.
- [4] A. Carpenter and A. Frontera, "Smart-watches: a potential challenge to the implantable loop recorder?," *Europace*, vol. 18, no. 6, pp. 791–793, 2016.
- [5] B. VanHoe, G. Lee, E. Bosman, J. Missinne, S. Kalathimekkad, O. Maskery, D. J. Webb, K. Sugden, P. VanDaele, and G. VanSteenberge, "UltraSmaI integrated optical fibers sensing system," *Sensors (Switzerland)*, vol. 12, no. 9, pp. 12052–12069, 2012.
- [6] P. Marika and D. Di, "Sensors, Signal Processing & Applications," vol. 5, no. 3, 2012.
- [7] G. Chatzimilioudis, A. Konstantinidis, C. Laoudias, and D. Zeinalipour-yazdi, "Crowdsourcing with smartphones," pp. 1–7, 2012.
- [8] P. C. Jain and K. P. Vijaygopalan, "RFID and Wireless Sensor Networks," *Proc. ASCNT--2010*, CDAC, Noida, India, pp. 1–11, 2010.
- [9] N. Pesonen, K. Jaakkola, J. Lamy, K. Nummila, and J. Marjonen, "Smart RFID Tags," *Dev. Implement. RFID Technol.*, no. February, pp. 159–178, 2009.
- [10] A. Loeffler and H. Gerhaeuser, "Localizing with Passive UHF RFID Tags Using Wideband Signals," *Radio Freq. Identif. from Syst. to Appl.*, pp. 85–110, 2013.
- [11] R. Bhattacharyya, C. Floerkemeier, and S. Sarma, "RFID tag antenna based temperature sensing," pp. 8–15, 2010.
- [12] N. Cárdenas-Benítez, R. Aquino-Santos, P. Magaña Espinoza, J. Aguilár-Velazco, A. Edwards-Block, and A. M. Cass, "Traffic congestion detection system through connected vehicles and big data," *Sensors (Switzerland)*, vol. 16, no. 5, 2016.
- [13] L. Wei and H.-Y. Dai, "Real-time Road Congestion Detection Based on Image Texture Analysis," *Procedia Eng.*, vol. 137, pp. 196–201, 2016.
- [14] Y. Zhu, N. Gao, J. Wang, and C. Liu, "Study on Traffic Flow Patterns Identification of Single Intersection Intelligent Signal Control," *Procedia Eng.*, vol. 137, pp. 452–460, 2016.
- [15] S. Wang, Z. Huang, and S. Trautenberg, "Measuring Medication Adherence with Simple Drug Use and Medication Switching Stacy Wang, Walgreens, Deerfield, IL Seth Trautenberg, Walgreens, Deerfield, IL SAS Global Forum 2013 Pharma and Health Care," *SAS Glob. Forum 2013-Pharma Heal. Care*, pp. 1–9, 2013.
- [16] W. Y. Lam, P. Fresco, W. Y. Lam, and P. Fresco, "Medication Adherence Measures: An Overview," *Medication Adherence Measures: An Overview*, *BioMed Res. Int. BioMed Res. Int.*, vol. 2015, 2015, p. e217047, 2015.
- [17] H. Hafezi, T. L. Robertson, G. D. Moon, K. Y. Au Yeung, M. J. Zdeblick, and G. M. Savage, "An ingestible sensor for measuring medication adherence," *IEEE Trans. Biomed. Eng.*, vol. 62, no. 1, pp. 99–109, 2015.
- [18] C. R. Dolder, J. P. Lacro, S. Leckband, and D. V. Jeste, "Intervention to improve antipsychotic medication adherence: Review of recent literature," *J. Clin. Psychopharmacol.*, vol. 23, no. 4, pp. 389–399, 2003.
- [19] B. L. Svarstad, B. A. Chewing, B. L. Sleath, and C. Claesson, "The brief medication questionnaire: A tool for screening patient adherence and barriers to adherence," *Patient Educ. Couns.*, vol. 37, no. 2, pp. 113–124, 1999.
- [20] M. S. Philips, O. Abdelghany, S. Johnston, R. Rarus, J. Austin-Szwak, and C. Kirkwood, "Navigating the Institutional Review Board (IRB) Process for Pharmacy-Related Research," *Hosp. Pharm.*, vol. 52, no. 2, pp. 105–116, 2017.
- [21] M. Haus, M. Waqas, A. Y. Ding, Y. Li, and S. Member, "Security and Privacy in Device-to-Device (D2D) Communication: A Review," no. December, pp. 1–27, 2016.
- [22] J. Liu, H. Shen, and X. Zhang, "A survey of mobile crowdsensing techniques: A critical component for the internet of things," 2016 25th Int. Conf. Comput. Commun. Networks, ICCCN 2016, 2016.
- [23] J. Dutta, F. Gazi, S. Roy, and C. Chowdhury, "AirSense: Opportunistic crowd-sensing based air quality monitoring system for smart city," in 2016 IEEE SENSORS, 2016, pp. 1–3.
- [24] A. Carpenter and A. Frontera, "Smart-watches: a