

MEDLIFE WEB APPLICATION

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Abstract: *Now a days, Technology-based health treatment in today's environment is even more important. Doctors tend to track patients in hospitals on a daily basis. The condition of patients operated on must be tracked on an ongoing basis. There could be no extremely qualified physicians in the hospital throughout the day. Now, healthcare systems are technically driven. In recent years, mobile devices and their use have also increased. This article describes the concept and implementation of an Android smartphone device implementation framework for a patient data display system. This device helps doctors to remotely monitor and react to the critical parameters of a patient. The objective of our application is about mobile healthcare system based on android and web applications. Our application provides assistance to patients, identifies and selects doctors based on their locations and the specialties of the doctors. Our app allows patients to make appointments with doctors and assigns reminders to take the prescribed medications and vaccinations, Secure and encrypted audio/video consultations between patients with their respective doctors. The results of testing the applications show a big saving of time and mobility of doctors and patients. In addition, communication has proven to be effective in enhancing healthy behaviors and giving the patients the support, they need to recover.*

Psychology, occupational therapy, physical therapy, athletic training, and other health professions all constitute health care. It includes work done in providing primary care, secondary care, and tertiary care, as well as in public health. Health systems are organizations established to meet the health needs of targeted populations. According to the World Health Organization (WHO), a well-functioning health care system requires a financing mechanism, a well-trained and adequately paid workforce, reliable information on which to base decisions and policies, and well-maintained health facilities to deliver quality medicines and technologies. Accidents on road have become a major concern for the people as well as the government. About three to five percent of the GDP was invested in road accidents each year. India roughly accounts for just about one percent of the global vehicle population. However, it accounted for about six percent of the total global road accidents. In 2020, there were around 132 thousand deaths due to road accidents in India. One of the contributing factors could be the ever-increasing vehicle population. In the last decade, the road network across the country grew by about a third of its original length. Vehicle registrations on the contrary, increased by almost three times. The majority of the accidents involved two-wheelers, which also dominate the Indian automotive industry in terms of production and sales. Over-speeding was another significant contributor to road accidents in India. Driving under alcohol influence, hit and run cases, and general traffic violations resulted in almost 80 percent of the accidents being the driver's fault. Citizens aged between 18 and 45 years were involved in about 70 percent of the road accidents. If the information is given by an unknown person, through telephone, the police may enter the message in the general diary and may conduct the preliminary inquiry. The FIR cannot be filled based on the cryptic telephonic

I. INTRODUCTION:

The good thing about custom made iOS and android apps is that all the ingredients are designed considering the parties that use them i.e.; Medicos and patients. The app design varies depending on the targeted user and is broadly classified in Providers Interface and Patients Interface. Healthcare is the improvement of health via the prevention, diagnosis, treatment, amelioration or cure of disease, illness, injury, and other physical and mental impairments in people. Health care is delivered by health professionals and allied health fields. Medicine, dentistry, pharmacy, midwifery, nursing, optometry, audiology,

message. If the information has been verified and either a statement has been recorded from the sender in writing or a confirmatory written and signed complaint has been received from the informant, then FIR can be filed based on the information. If the first informant, who gave the information through telephone is unknown, then the victim's complaint can be treated as the information for first information report, so in order to identify the unknown person police requires lot of efforts to find out the information of the person. But the thing is every person's ten finger and retina details are stored in the Aadhar database. By scanning the finger print or retina one can easily be able to identify the person details. If an unknown person dies in an accident, the first step is for the authorities to try to identify the person. This can involve checking for any identification on the body or in the person's belongings, as well as reaching out to the public for any information about the person. If the person cannot be identified, the authorities will typically try to determine the cause of death and gather any evidence that could help identify the person or determine the circumstances surrounding the accident. They may also conduct an autopsy to determine the cause of death. Once the person has been identified, the authorities will typically notify the person's next of kin. If the next of kin cannot be located, the authorities may seek the assistance of the public in locating them. In some cases, if the person cannot be identified or if the next of kin cannot be located, the person may be buried in an unmarked grave or cremated. However, authorities will make every effort to identify the person and locate their next of kin before taking such steps. If a person dies during an accident, the handling of their body will depend on various factors, such as the location of the accident, the cause of death, and local laws and regulations. In general, the body will be taken to a medical examiner's office or morgue, where an autopsy may be performed to determine the cause of death. The body will then be held until arrangements are made for burial or cremation. If the person has family members who are able to claim the body, they will typically be responsible for making the arrangements and covering the associated costs. If the person has no known family or if they are unable to claim the body, the responsibility may fall to the state

or local government. In some cases, if the person's identity is unknown, efforts will be made to identify them and locate their next of kin before making any final arrangements for the body. If a person dies and their identity is unknown, the police will typically work to try to identify the person. This may involve checking for any identification on the body or in the person's belongings, as well as reaching out to the public for any information about the person. If the person cannot be identified, the police may use other methods to try to identify them, such as fingerprint analysis, dental records, or DNA testing. They may also use facial reconstruction or sketches to try to create an image of what the person may have looked like, which can be circulated to the public in hopes of identifying them. In some cases, if the person remains unidentified, the body may be buried in an unmarked grave or cremated. However, authorities will make every effort to identify the person and locate their next of kin before taking such steps. It's worth noting that there are databases available for unidentified persons, such as the National Missing and Unidentified Persons System (NamUs) in the United States. These databases can be used to help match unidentified bodies with missing person's cases, and can be a valuable resource in trying to identify an unknown deceased person.

MOTIVATION FOR THE WORK:

An Android enabled device can run the application without any relation to the hardware. Also, its wide presence in most of today's smart phones makes Android the most suitable platform for developing the Patient Viewer System. This flexibility gives the user a range of devices to choose from like mobile phones, tablets, etc. The Android software easily integrates with the device's existing applications. Many healthcare applications are being developed on Android due to ability to interact with hardware at a high level. Another major advantage of Android is its quick and simple installation process for applications. A user must go to the Android Market (which is a preinstalled app on the Android device) and simply load the software by clicking on it. Any needed information can be supplied at the time of installation. This removes the need for a technician to install software and enormously quickens the implementation of a patient

Monitoring system. The patient residing in the hospital is connected to various medical equipment such as multi-channel monitor, pulse oximeter, ventilator, etc. These are all transducers which convert the patient's vital parameters into digital data. This data is fed to a controller in the patient ward. The controller collects information from all the equipment connected to different patients, compiles and stores the information. The information is periodically updated into the hospital server. If any of the vital parameters of a particular patient crosses the safe limits, the controller alerts the server and updates the patient information on the server. Many controllers in different wards are connected to a single server. The hospital server has a database of patients with details such as the patient's name, age, sex, address, the supervising doctor, patient's medical history. The database also contains the record of investigations done on the patient, any surgical procedure done or the treatment given. Legalities, billing, etc are also included. The important vital parameters included in the database are blood pressures, electrocardiography (ECG), respiration rate, heart rate, temperature, oxygen saturation, inspiratory CO₂ and expiratory CO₂.

III. SUSTAINABILITY OF ANDROID PLATFORM:

Database: Develop a centralized database that contains the biometric data, personal information, medical history, pill reminders, and appointment scheduling of all patients who have enrolled in the system. Mobile App: Create a mobile application that can be installed on smartphones or tablets used by patients. The app should have a user-friendly interface and include features for accessing medical history, setting pill reminders, scheduling appointments, and consulting with doctors online. Authentication: To ensure data privacy and security, the app should require user authentication, such as a login with a username and password or biometric authentication. Medical History: The app should enable patients to access their entire medical history, starting from birth to the present day. This can include details about previous illnesses, surgeries, medications, allergies, and any other relevant information. Pill Reminders: The app

Should include a feature that reminds patients to take their medication at the appropriate times. Patients can enter information about their medication, dosage, and timing, and the app can generate reminders based on this information. Online Doctor Consultation: The app should allow patients to consult with doctors online, either through chat or video calls. Patients can provide their medical history and symptoms, and doctors can provide advice and recommendations. Online Doctor Appointment: The app should allow patients to schedule appointments with doctors online, either through the app itself or by integrating with existing online appointment scheduling systems. Data Security: To ensure the privacy and security of patient data, the app should use secure communication protocols to transmit and store data. It should also be equipped with appropriate access controls to ensure that only authorized users have access to the data. Compliance: The app should comply with all relevant legal and regulatory requirements, including data protection laws and regulations. This would include obtaining informed consent from patients before collecting and using their data, and ensuring that the data is stored and processed in accordance with applicable laws. Overall, this system would provide patients with a convenient and efficient way to manage their health and medical history, while also enabling them to consult with doctors and schedule appointments online. However, as with any system that involves sensitive personal data, it's important to ensure that appropriate safeguards are in place to protect patient privacy and security.

MEDLIFE APPLICATION SYSTEM DESIGN:

Authentication Module - This module is responsible for ensuring secure user authentication and authorization to access the system.

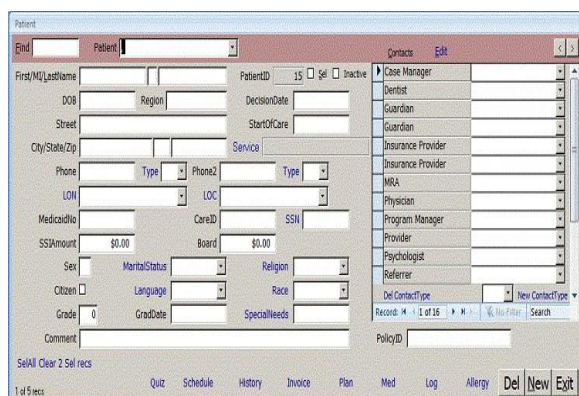
Patient Registration Module - This module allows patients to register for the system by providing their biometric data, personal information, and medical history.

Pill Reminder Module - This module enables patients to set reminders to take their medication at the appropriate times.

- d. Online Doctor Consultation Module - This module allows patients to consult with doctors online, either through chat or videocalls.
- e. Online Appointment Scheduling Module -This module allows patients to schedule appointments with doctors online, either through the app itself or by integrating with existing online appointmentscheduling systems.
- f. Medical History Module - This module allows patients to access their entire medical history, including details about previous illnesses, surgeries, medications, allergies, and any other relevant information.
- g. Biometric Identification Module - This module enables government doctors in the ambulance to identify the details of the accident person's detail by scanning their fingerprint and retina details available in the Aadhaar database.
- h. User Management Module - This module is responsible for managing user accounts and access to the system.
- i. Data Security Module - This module ensures that patient data is securely stored and transmitted.
- j. Compliance Module - This module ensures that the system complies with relevant legal and regulatory requirements.
- k. Reporting Module - This module allows for the generation of various reports related to patient data, appointment scheduling, and medication adherence.
- l. Admin Dashboard Module - This module provides a centralized dashboard for administrators to manage the system, view reports, and monitor system usage.
- m. Feedback Module - This module allows patients to provide feedback on their experience with the system and enables administrators to identify areas for improvement.

V. SYSTEM DESIGN OF MODEL:

Figure 1.1 Basic layout of application.



The screenshot displays a web-based application for patient management. The main form is titled 'Patient' and contains various input fields for patient information, including First/Last Name, DOB, Street, City/State/Zip, Phone, LOH, Medicaid ID, SSN, Sex, Marital Status, Religion, Citizen, Language, Race, Grade, Grad Date, Special Needs, and Comment. There are also checkboxes for '15', 'Self', and 'Inactive'. To the right of the form is a 'Contacts' section with a list of roles: Case Manager, Dentist, Guardian, Insurance Provider, NRA, Physician, Program Manager, Provider, Psychologist, and Referrer. Each role has a corresponding input field. At the bottom of the form, there are buttons for 'Save', 'Clear', '2', 'Self', and 'recs'. Below the form is a navigation bar with links for 'Quiz', 'Schedule', 'History', 'Invoice', 'Plan', 'Med', 'Log', 'Allergy', 'Del', 'New', and 'Exit'.

IMPLEMENTAION:

The result of this project could be a comprehensive healthcare management system that provides patients with a range of features and services to manage their health and medical needs. By integrating biometric identification, doctors in the ambulance could easily and quickly identify the details of accident victims and provide them with timely medical care. The pill reminder feature would help older adults, who may have difficulty remembering to take their medication regularly. The online doctor consultation and appointment scheduling features would enable patients to access healthcare services remotely, from the comfort of their homes. The medical history feature would allow patients to track and manage their medical information and share it with healthcare providers as needed. Overall, the system could help improve the quality of healthcare services provided to patients, reduce the burden on healthcare infrastructure, and provide patients with greater control over their health and medical needs.

CONCLUSION:

In conclusion, the proposed healthcare management system could be a valuable tool for patients, healthcare providers, and government authorities. The system could improve the quality of healthcare services provided to patients, especially in emergency situations like accidents, where quick and accurate identification of patient details is critical. The system's pill reminder feature could be particularly helpful for older adults who often have to manage multiple

Medications. The online doctor consultation and appointment scheduling features could improve access to healthcare services, especially for patients who may have mobility issues or live in remote areas. The medical history feature could help patients and healthcare providers manage medical information more effectively, and the system's reporting and feedback features could help administrators identify areas for improvement and provide patients with a better experience. Overall, the healthcare management system could play a vital role in improving healthcare services, increasing efficiency, and reducing the burden on healthcare infrastructure. It could be a valuable tool for patients, healthcare providers, and government authorities looking to provide better healthcare services to their communities.

VII. FUTURE ENHANCEMENTS:

- a. There are several future enhancements that could be made to the proposed healthcare management system: Integration with wearable devices - The system could be enhanced by integrating with wearable devices, such as smartwatches, to collect patient health data in real-time. This could help healthcare providers monitor patients' health more effectively and provide personalized treatment plans.
- b. Artificial Intelligence (AI) and Machine Learning (ML) - The system could be improved by incorporating AI and ML technologies. For example, AI-powered chatbots could provide patients with personalized healthcare advice, while ML algorithms could help healthcare providers predict and prevent certain diseases.
- c. Electronic Health Records (EHRs) - The system could be enhanced by integrating with EHR systems to allow patients and healthcare providers to access medical records from various healthcare providers in a centralized location. Health Analytics - The system could be improved by incorporating health analytics to allow healthcare providers and administrators to analyse patient data, identify trends, and make more informed decisions. Block chain Technology - The system could be improved by using block chain technology to improve the security and privacy of patient data. Block chain technology could also be used to enable secure sharing of medical records between patients and healthcare providers.

These are just a few potential future enhancements that could be made to the proposed healthcare management system. The possibilities are endless, and the system could be continuously improved and updated to meet the evolving needs of patients and healthcare providers.

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