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ABSTRACT

This paper presents the development of a virtual health care system. We suggest that the physician treat patients administer programs that assist both the physician and the patient by rescheduling the appointments and monitoring the medical progress. The virtual system helps and allows the doctors to manage their online reservations. Patients can take online appointments. Number of appointments for different date and time is managed by the portal. E-ASHWINA is a communication link between the doctor and the patients; the opportunity to communicate on a one-to-one basis is highly valued. The administrator has the right to register certified doctors and hospitals on the portal, any third party cannot access data of the portal. Our program also contains a donor module. This portal allows quick search of blood banks nearby your locations and also blood donation centers near you. It provides Covid-19 guidelines for the patients and vaccines information, How can register for vaccines through governments official sites.

Keywords

Virtual healthcare, healthcare monitoring, Doctors- patient portal, blood bank centers, pharmacy stores nearby, Vaccines registration

1. INTRODUCTION

Here we presents that the physician manage the patients, also administer the program that assist both of them by rescheduling the appointments and monitoring the patient's medical progress. The virtual system helps and allows the doctors to manage their online reservations. Number of appointments for different date and time is handled by this system. The portal handles the data of various appointments with different entries. The doctor maintains a database which is updated after each visit of a user. Whenever the user logs in him/her can entirely take a look at their medical record. Simultaneously, the medical history of the patient can be viewed by the doctor with provided background information for a visit. This permits an automated medication management accompanied by online visual cache. Our program also contains a donor module. In this module, we can also provide details of database-controlled patients, so it is easier for us to find contacts and their medical history.

In this pandemic situation, this portal shows Guidelines related to covid-19, hospital availability, a list of emergency medicines, and their availability in your location.

How we can overcome this situation is a major issue we cannot do this in a day. The processor of how we can book a covid-19 vaccine slot on the government website step by step.

This portal allows quick search of blood banks nearby your locations and also blood donation centers near you. So in this portal, we will provide you with proper information about the availability of blood in your nearby blood bank. So that it will be easy to get appropriate information about the need of blood you require. It becomes easy and less time-consuming for the needy persons to search for the blood he requires. This help in saving a lot of time and life for the patient.

2. LITERATURE SURVEY

Trust in Virtual Healthcare Communities: Design and Implementation of Trust-Enabling Functionalities.

[1]In this survey, we saw fundamental consideration of components and how we will build trust in society. We should build Quality assured content for maintaining transparency. Trust and reputation makes difference in mindsets, why should society choose us because with provide Quality assured content for maintaining transparency.

Team management plays an important role in this aspect. Heads of department/ authority should guide us in right ways so we can make transparency.

MONITORING PATIENTS VIA A SECURE AND MOBILE HEALTHCARE SYSTEM

[2]Authors state that there can be several techniques that can be used to monitor patients effectively and enhance the functionality of telemedicine systems. They also put light on current secure strategies that can impede the attacks faced by wireless communications in healthcare systems and improve the security of mobile healthcare.

A Secure Mobile Healthcare System using Trust-Based Multicast Scheme

[3]The author state the open issues in security, everyone wants safety about their personal information and medical details. Our phones can be taken away or loss very easily, so we should build factor authentication to make a more secure portal or system.

Confidentiality of data should be maintained properly through cryptographic algorithms; it will encrypt medical information and protect necessary data.

M. Tentori, J. Favela, and M. D. Rodriguez, "PrivacyAware Autonomous Agents for Pervasive Healthcare," *IEEE Intelligent Sys.*, vol. 21, 2006, pp. 55–62.

[4] This survey helped us to identify the satisfaction of users or how we can build a user-friendly framework for the portal. Privacy has become a big question for everyone, how we can overcome this and make privacy awareness applications for all. QoP level is used in this application shows the detailed pieces of information like e user's location and identity, the time of day, the artifacts used.

3. PROPOSED METHODS

In today's life, all are facing a lot of challenges related to hospitality. In this pandemic situation, it makes more worst to search hospitals and the availability of beds not only for Covid-19 patients but also for regular diagnose patients. To overcome this situation and makes it easier for everyone we have build this E-ASHWIN

3.1 Different Logins

At first users in their fields need to make registration through the registration portal and the admin will verify their role and accordingly experts or executive members will confirm identity and activate logins. We have built the two most secure environment logins the first is for doctors and the second one is for patients.

3.2 Health A to Z

E-ASHWINA creates health A to Z activity page where user can see all A to Z disease. In this page user can access all the information about disease, their causes, how we can prevent this. It also shows related specialist doctors and their blogs, other patient's blogs or comments how they recover from disease. Important preventions and councilor to help user through their treatments.

3.3 Integrations

Design this portal in a way that everyone can access this without any difficulty. We have supports of different major portals integrations from government organizations that make our site more selective in terms of the different portals i.e covid-19 guidelines and vaccine information. Creates secure database to keep records of all users, doctors. Admin as well as doctors panel develops in user friendly and responsive mode that can be handle without any complications.

3.4 Services

Coming to services availabilities, portal have made it possible to give you all-important services in one place followed by essentials and non-essentials. From Covid-19 guidelines, have made a research on the market and the most important is user-friendly environment is much needed for peoples.

For patients it is more reliable to find specialist doctors near them, and also can view nearby pharmacies and available medicines prices.

For doctors, they will reach more patients, more engagement with remote monitoring, and access to live one-to-one communication.

3.5 Live Chat

Nowadays direct conversation with doctors is more preferable, in the time of any emergency no matter where you are you can contact your family doctors through this portal. We can understand that family doctors consider firstly than any other doctor. It will make it more comfortable for the patient. Live chat with patients will also help doctors to keep track of the health progress of their patients it will create more transparency between doctors and patients.

3.6 Available In All Languages

After the research and study, came to know about the language barrier and existing services are mainly in one or a few languages. So, to overcome this situation, we decided to give support of all major languages without any limitations and even they can switch their languages in real-time without refreshing the whole page content wherever they are on page they can translate in their way. Of course, languages have made things impossible to many peoples to make understand others about their problems. To overcome the language barrier, we have powered our portal from tech giant Google, their Google translate service.

3.7 User Interface

The UI plays a more important role in user interactions. The simple and responsive UI makes the user attract more. The whole UI activity is monitored under our testing periods and found fluent in use and action found accurate. Coming to point for customer and seller, the simple and responsive UI makes a good impact and if they found it good in their way the user interaction will increase and satisfaction raises to work more to achieve perfections.

3.8 Activity

To verify certified doctors, there will be a team of admin, without admin permission no one can access the data of the portal. Keeping in mind that genuineness for the patients, we create more Covid-19 related guidelines

To help them with register in vaccines and articles on self-discipline in this pandemic.

All know that in this Pandemic situation people face a lot of problems related to the availability of blood. To overcome this portal create a blood donation guideline to spread awareness of it. E-ASHWIN are using centralized control panel to monitor activity and reply to our customers in real time of response.

3.9 Security

On mark discussion, the security feature of our portal is utmost level of priority from login page to registration have been done uniquely and securely. The login page has error displaying features that display, we have entered wrong credential then it shows the error prompt. Also, to ensure the authorization has been done by real user in their respective field of login. Portal created a special registration page for doctors and hospitals, that will not create the instant login to anyone., to verify and ensure the legacy and secure role, our verification team will verify by physical visiting and online verification process will be done, to register on portal, they need to submit the information on our registrations page along with their role. After successful verification process, the login will be activated on our portal; there is no shortcut for this of course. To maintain integrity and authenticity we have proposed this process of registrations.

4. RELATED WORK

4.1 Working

In TECH-SAVIOUR, we implement a doctor-patient portal. We have 3 logins 1) ADMIN LOGIN 2) DOCTOR LOGIN 3) PATIENT LOGIN.

ADMIN LOGINS

Admin is the person who can first log in to the system and set his password and id. And then he assigns doctors to specific domains. Admin can see the overall status of the project. Admin registers verified doctors and hospitals in portals. Probably the overall portal works on the guidance of the admin. Verifications of Doctors, as well as patients, are under the control of the admin. Adding locations of hospitals and keep updating it, keep racking records and overall performance.

DOCTORS LOGIN firstly doctors have to register with this portal through their ids or hospitals register numbers with the government. Doctors provide their appointment timings and their details to the admin.

According to their specialization admin keep them in the specific domain.

Doctors can start their consultants with the patient in this portal. They can creates blogs on their specific subject to council patients and maintains balance.

USER LOGIN patients can register themselves with us creating their id and passwords. This will help us keeping logins more secure and maintaining records of patients. A patient can choose Doctors and book their appointments from the portal. Patients can track their health progress and online consult with doctors any time AND anyever.

According to their location, they can choose nearby hospital locations, hospitals opening timings, and their doctor's details.

User can get help from blood bank module or they can donate blood to centers.

4.2 Methodology

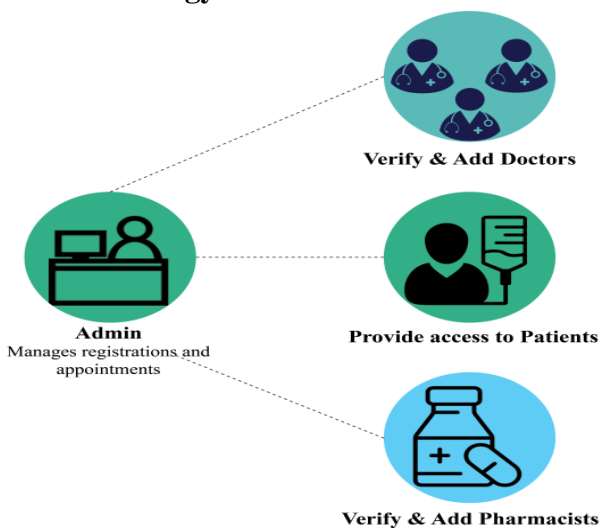


Fig2.1: Admin Login

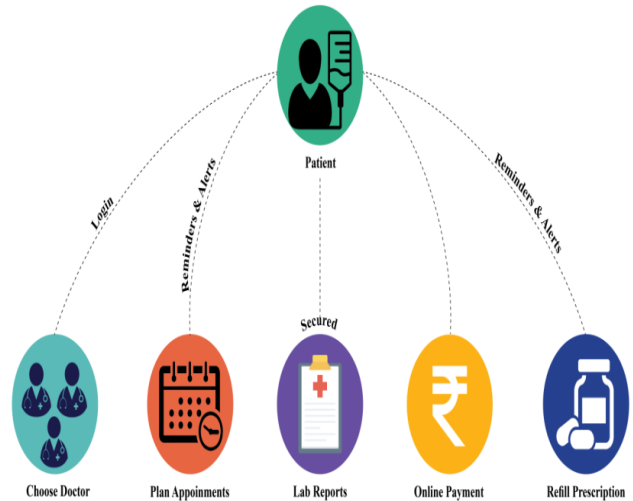


Fig2.2: Patient Login

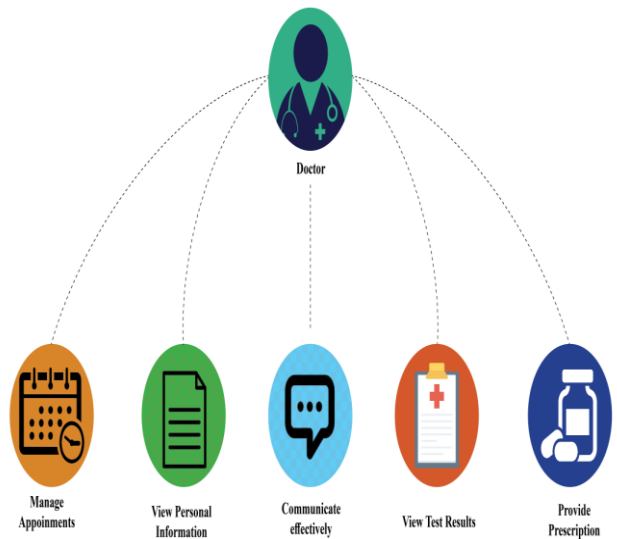


Fig2.3: Doctor Login

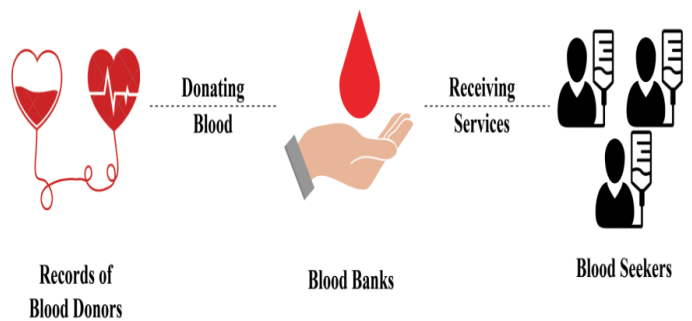


Fig2.4: Blood Bank

5. FUTURE SCOPE

Virtual attention is around India till 2019, with only 11% of the population going through these opportunities. Many folks would like in-person visits to be fully certain that they got the proper recommendation and prompt the desired treatments.

But 2020 shows USA virtual health landscape expertise a revolution of a form.

COVID created its entry into our lives, and soon, it had been dangerous to be in a very hospital. Of course, currently those individuals had no selection that they had to resort to virtual attention apps and websites. And by the top of the year, the proportion of the population actively victimization virtual attention had up to an impressive seventy-six

The future looks promising for virtual health! currently that individuals are victimization it, they'll decide for themselves in what things they have to in-person visit the doctor Associate in Nursing once an app could fulfill.

The folks that benefit most from virtual attention can be the seniors in care homes. Since they were within the risky cluster for COVID that they had to be monitored remotely by caregivers and currently it looks this might be here to remain.

However, problems like legalities and security problems ought to be sorted out if virtual health is to supplement ancient medication in a very larger approach. For now, we will foresee additional individuals' finance in these ventures, so the potential of virtual attention is explored.

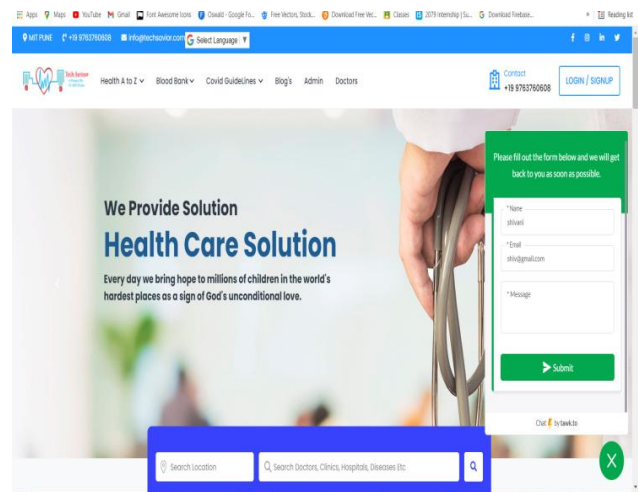


Fig1: Homepage

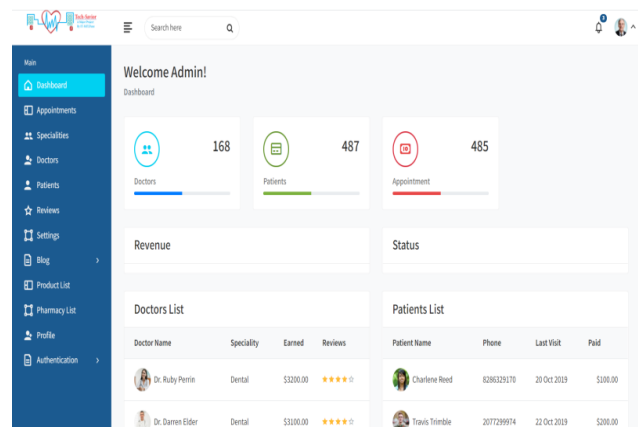


Fig2: Admin Control Panel



Fig3: Bloodbank or Blood Donation



Fig4: Covid-19 Guidelines or vaccine Registration Info

6. CONCLUSION

FLEXIBLE for everyone no matter which language you know, shows nearby location hospitals give detailed information about verified doctors, keeping the medical record of every user with security.

Thus, Virtual Healthcare Assistant is a very useful tool for maintaining the health records of the patients and users of this web service. It maintains the patient's or users' details. Doctors and health institutions can look into these records if need be. Thus, this system automates the excess amount of labor it takes to maintain these records on paper, and also these records are monitored so that there are no chances of data leaks.

By building A E-ASHWIN, the hospital website will have a higher amount of insights which will be more profitable for the hospital as well as the patient and his family. Our website will help you to check the appointment of the doctor and also the availability of blood in blood banks and the patient can have a one-to-one conversation with the doctor. It will also provide doctors the older prescription and the older record of the patient with one click. This system will help patients to interact with doctors, without physically visiting it. Our website provides some of the great features which reduce the stress from the receptionist who gets a huge number of calls from patients regarding appointments and availability of blood in the blood bank.

7. REFERENCES

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