International Research Journal of Innovations in Engineering and Technology (IRJIET)

ISSN (online): 2581-3048

Volume 9, Issue 12, pp 199-202, December-2025

https://doi.org/10.47001/IRJIET/2025.912030

First Health – Smart Digital Healthcare System

[1]Mayuri Chavan, [2]Kajal Patil, [3]Sanskruti Shitole, [4]Prof. Sumoli Vaje, [5]Prof. Nita Pawar

[1,2,3]Student, Computer Engineering Diploma, Ajeenkya D. Y. Patil School of Engineering, Charholi, Pune, India
[4]Guide, Professor, Computer Engineering Diploma, Ajeenkya D. Y. Patil School of Engineering, Charholi, Pune, India
[5]HOD, Professor, Computer Engineering Diploma, Ajeenkya D. Y. Patil School of Engineering, Charholi, Pune, India

***Abstract* - This project is a digital healthcare system that helps manage patient records, medical information, and doctor prescriptions securely online. It allows patients and doctors to store and access medical data quickly, track symptoms, and generate prescriptions instantly. The system is designed to be easy to use and keeps all sensitive data safe. The abstract tells the reader why the project matters, what problem it solves, and what it includes overall.**

Keywords: First Health, Smart Digital Healthcare, Medical information, Patients, Digital healthcare system.

I. INTRODUCTION

This project is designed to create a healthcare service system that allows people and doctors to access medical data digitally. Instead of keeping health records on paper, everything is stored in the computer system so that it can be retrieved quickly when needed. With modern technology, many people prefer using online systems for health records because it is easier and faster than traditional methods. This system aims to reduce confusion, save time, and keep health information organized and secure.

The homepage shows that users can log in and use features like secure storage of health data, instant access to patient records, and digital symptom reporting with prescriptions. These features help make the healthcare system more responsive and user-friendly.

II. LITERATURE SURVEY

The literature survey studies existing healthcare management systems and digital health solutions developed by researchers. Earlier healthcare systems were mainly paper-based, which resulted in problems such as loss of records, duplication of data, and difficulty in accessing patient history. Many studies highlight the use of Electronic Health Records (EHR) to store medical data digitally for quick and accurate access. Researchers also emphasize web-based healthcare platforms for remote access and improved doctor–patient communication. Some systems focus only on limited features like appointment booking or prescriptions. Security and privacy concerns are major issues discussed in literature due to the sensitivity of medical data. Many systems are also complex for non-technical users. Therefore, research shows the need for a simple, secure, and integrated healthcare services system.

III. METHODOLOGY

The methodology describes the systematic approach followed to develop the healthcare services system. The first step involves requirement gathering, where problems of traditional healthcare systems are studied. User needs such as secure login, digital medical records, and controlled access are identified. The second stage is system design, which includes planning system architecture, database structure, and user interface. The third stage focuses on development, where frontend and backend modules are implemented. Security mechanisms like authentication and role-based access are applied. Testing is carried out to identify errors and performance issues. Finally, the system is deployed and maintained to ensure smooth operation and future improvements.

IV. IMPLEMENTATION

The implementation phase focuses on converting the system design into a working web application. The frontend is developed to provide an easy-to-use interface for patients and doctors. Separate dashboards are created for different user roles to ensure proper access.

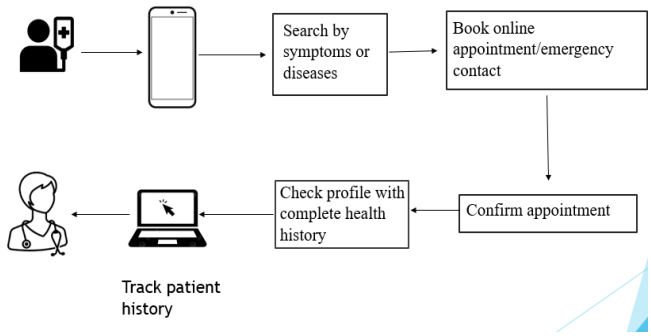


Figure 1: System Architecture (Design)

The backend manages user authentication, business logic, and database communication. A structured database is implemented to store patient details, medical history, and

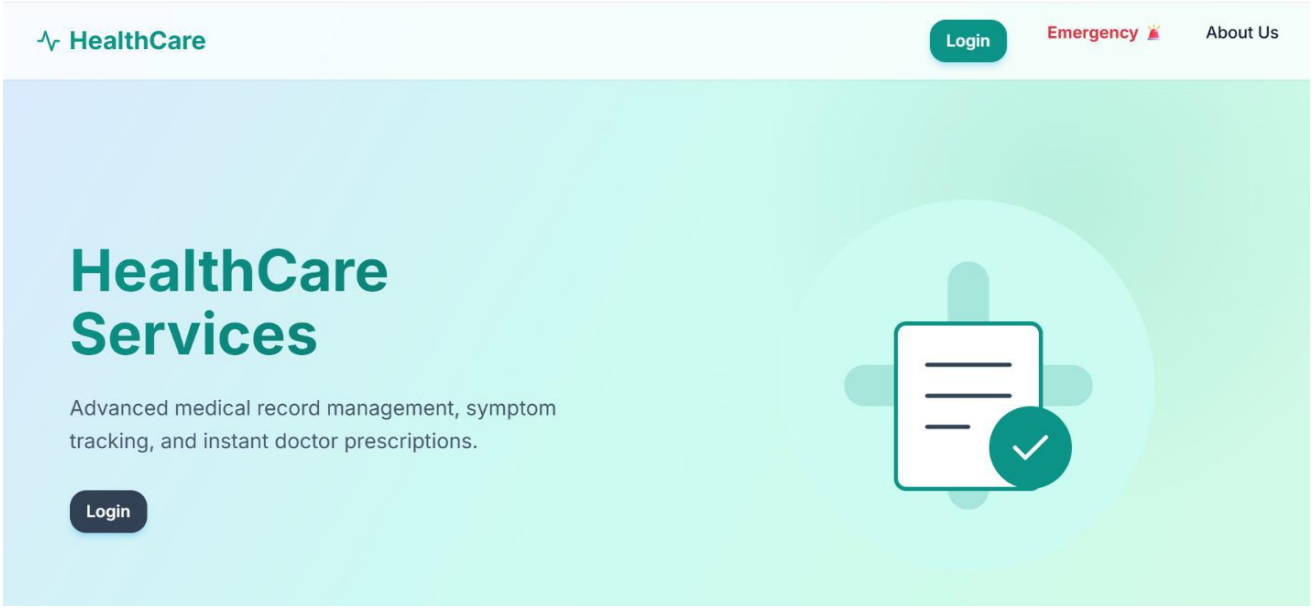
International Research Journal of Innovations in Engineering and Technology (IRJIET)
ISSN (online): 2581-3048
Volume 9, Issue 12, pp 199-202, December-2025
https://doi.org/10.47001/IRJIET/2025.912030

prescriptions securely. Data validation ensures accuracy and reliability of information. Security features such as encrypted passwords and session handling are applied. The system is deployed on a web server to allow online access. Continuous testing is performed during implementation to ensure smooth functioning.

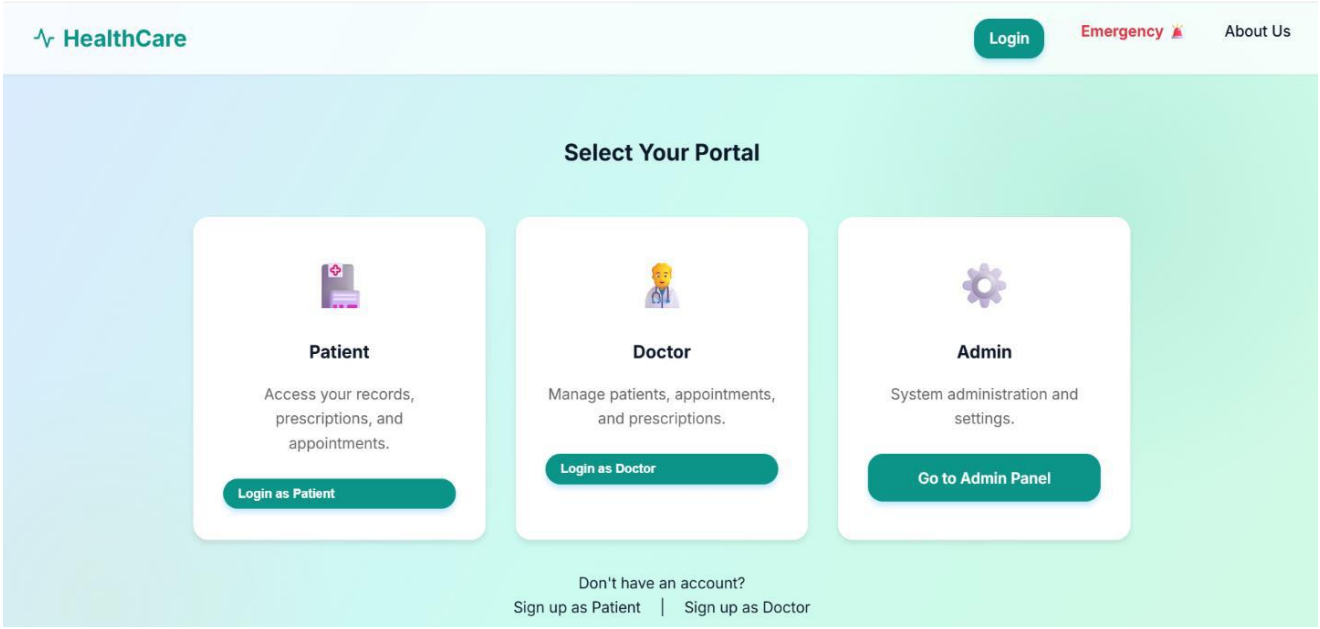
V. RESULTS AND DISCUSSION

The results show that the healthcare services system successfully achieves its objectives. Users can easily register, log in, and access the system features. Patient medical records are stored digitally and retrieved quickly when required. Doctors can view complete patient history and issue digital prescriptions efficiently. The system reduces paperwork and minimizes human errors. Database performance is fast and reliable. Security mechanisms prevent unauthorized access to sensitive information. Overall, the system provides an effective and modern solution for healthcare data management.

1. Main Page



2. Login Page



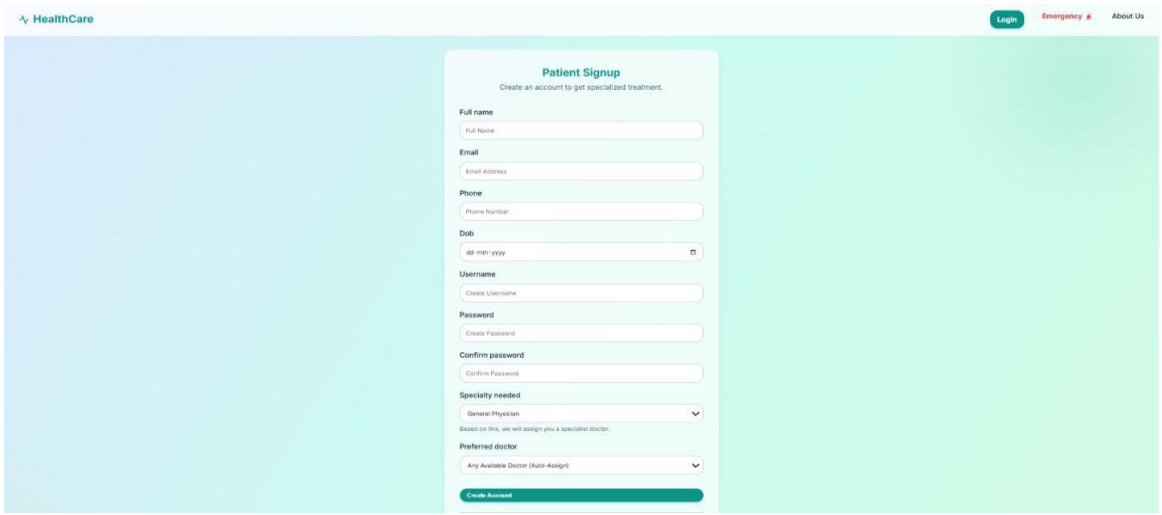
International Research Journal of Innovations in Engineering and Technology (IRJIET)

ISSN (online): 2581-3048

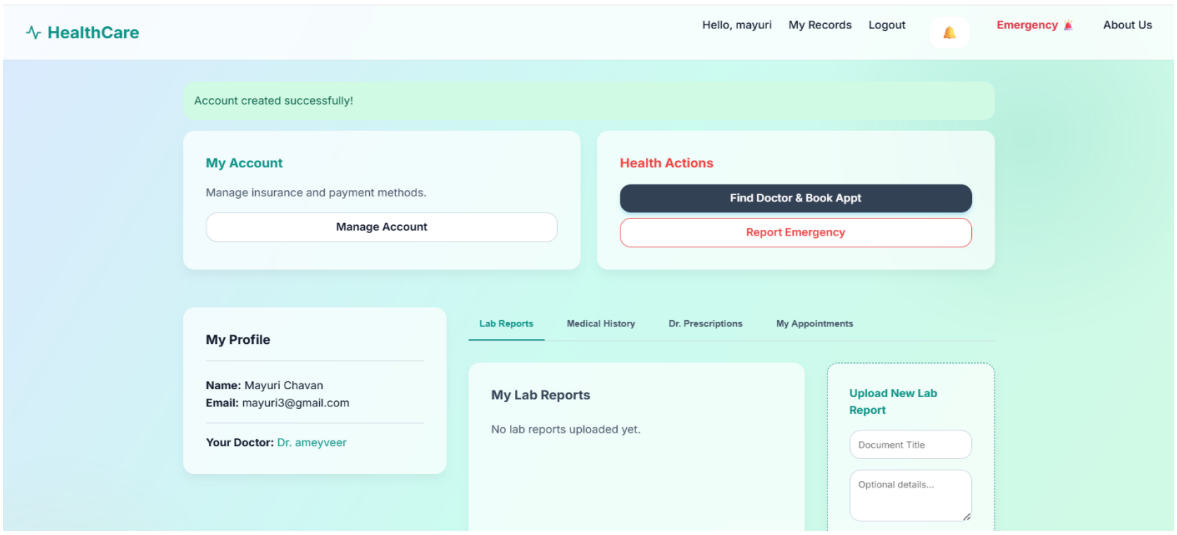
Volume 9, Issue 12, pp 199-202, December-2025

https://doi.org/10.47001/IRJIET/2025.912030

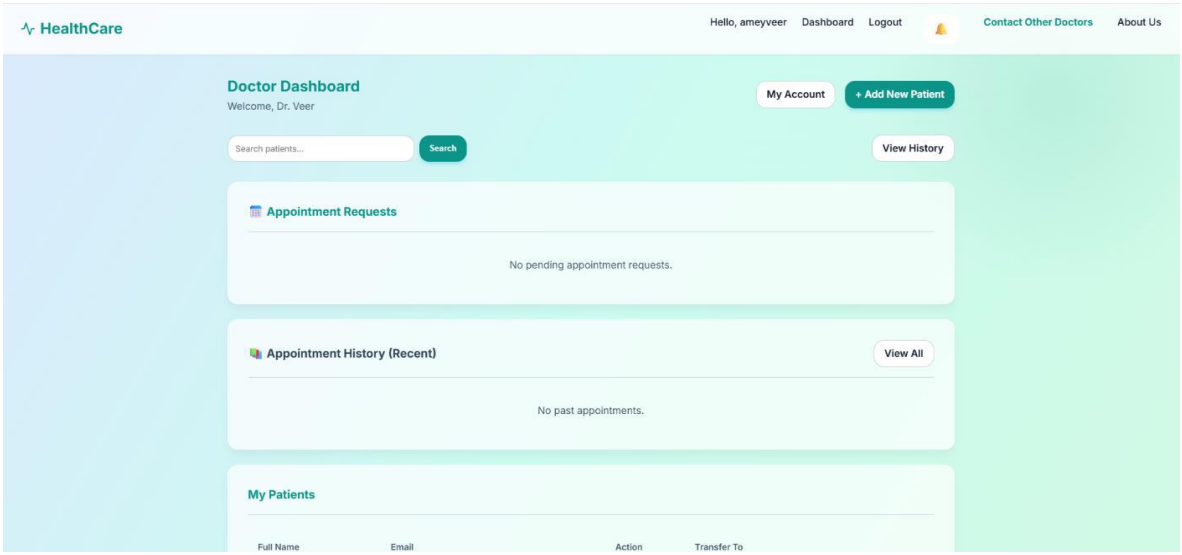
3. Registration Page



4. Patient Dashboard



5. Doctor Dashboard



International Research Journal of Innovations in Engineering and Technology (IRJIET)

ISSN (online): 2581-3048

Volume 9, Issue 12, pp 199-202, December-2025

https://doi.org/10.47001/IRJIET/2025.912030

VI. RESULT ANALYSIS

The analysis of results indicates that the system significantly improves healthcare data management. Digital record storage eliminates the risk of losing paper files and reduces data duplication. Role-based access control ensures privacy and data security. The system interface is simple, making it usable for non-technical users. It improves efficiency and saves time for both patients and doctors. Some limitations include dependence on internet connectivity. However, the modular design allows easy future enhancements. Overall, the system is reliable, secure, and suitable for real-world healthcare environments.

VII. CONCLUSION

The healthcare services system provides a secure and efficient platform for managing medical information. It replaces traditional paper-based systems with a digital solution that improves accuracy and accessibility. Doctors can access patient data quickly, helping in better diagnosis and treatment. The system enhances communication between patients and healthcare providers. Strong security features protect sensitive medical data and ensure user trust. The platform reduces manual workload and paperwork. It also supports faster decision-making during emergencies. The system has great potential for future enhancements such as mobile apps and online consultations. Overall, it contributes to smarter and more efficient healthcare services.

REFERENCES

[1] World Health Organization (WHO), Digital Health Overview and Guidelines.

[2] K. Laudon and J. Laudon, Management Information Systems, Pearson Education.

[3] R. Pressman, Software Engineering: A Practitioner's Approach, McGraw-Hill.

[4] Django Software Foundation, Official Django Documentation.

[5] W3Schools, HTML, CSS, and JavaScript Tutorials.

[6] IEEE Journals on Healthcare Information Systems.

Citation of this Article:

Mayuri Chavan, Kajal Patil, Sanskruti Shitole, Prof. Sumoli Vaje, & Prof. Nita Pawar. (2025). First Health – Smart Digital Healthcare System. *International Research Journal of Innovations in Engineering and Technology - IRJIET*, 9(12), 199-202. Article DOI https://doi.org/10.47001/IRJIET/2025.912030

****

