Parul Institute of Technology

BTech 6th Semester Minor Project Presentation

CleverCare

(HealthCare WebApp)

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Abstract

- In recent years, the healthcare industry has increasingly embraced digital transformation to enhance patient care, streamline administrative processes, and improve overall efficiency.

- The healthcare web application we propose aims to bridge the gap between patients and healthcare providers by offering a comprehensive, user-friendly platform that supports various aspects of healthcare management.

- The primary features of the web application include patient appointment scheduling, electronic health records (EHR) management, telemedicine capabilities, prescription management, and a patient portal for accessing personal health information.

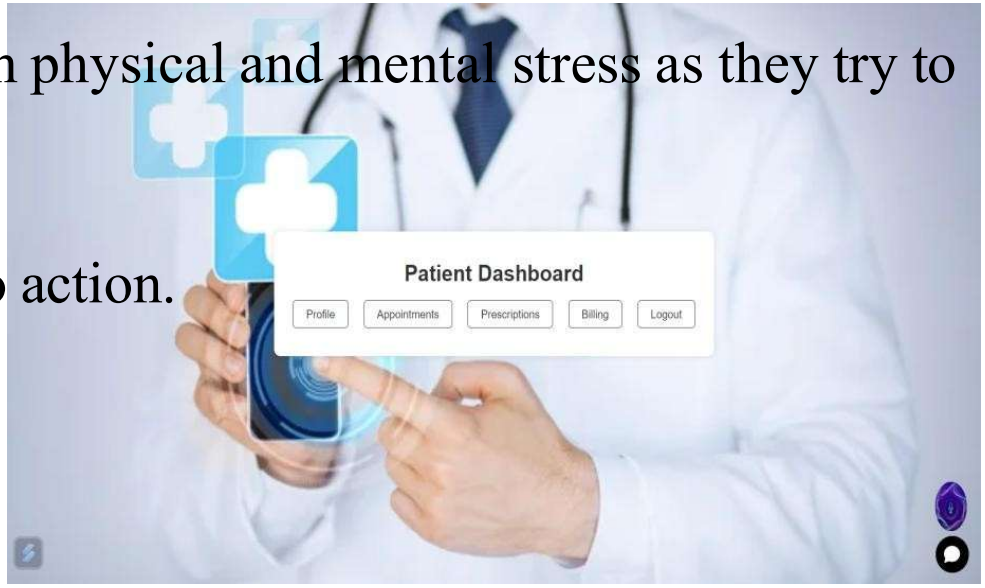
- The application integrates with existing healthcare systems and ensures data security and privacy in compliance with regulatory standards such as HIPAA

Introduction

- It is a web service in which the proposed system tries to eliminate user's need to figure out their disease by giving them access to a centralized clinical repository in a much interactive manner.
- Users can also ask questions regarding their disease and even book online and offline appointments with doctors.
- User can enter the Symptoms or Disease and Our System try to figure out it and give the immediate action that user can take it may be some Home remedies or some emergency Medicine.
- Taking that case into condition there is one more feature that is an online video appointment in case of emergency and users can also book an offline appointment near their location.

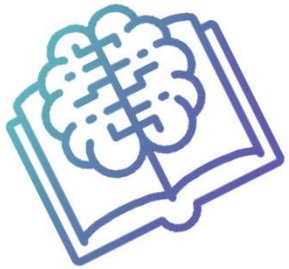
Problem Statement

- One of the most common problems faced by today's people is a lack of knowledge of diseases and a lack of immediate first aid consultation.
- **Developing a feature in a project to suggest medicines for temporary relief based on symptoms.**
- Due to this many people may suffer from physical and mental stress as they try to figure out the reason for their condition.
- Now Virtual Health Assistant comes into action.



Methodology

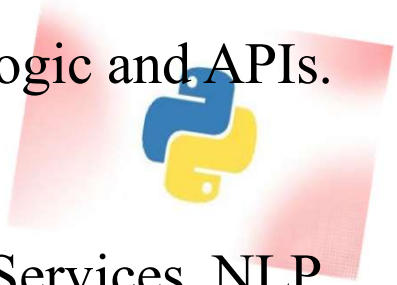
- The methodology section outlines the systematic process followed during the development of the Virtual Health Care.
- This section will cover the various phases, tools, and techniques employed to ensure the successful completion of the project.



Tools/Technology:

Frontend: HTML, CSS, JavaScript.

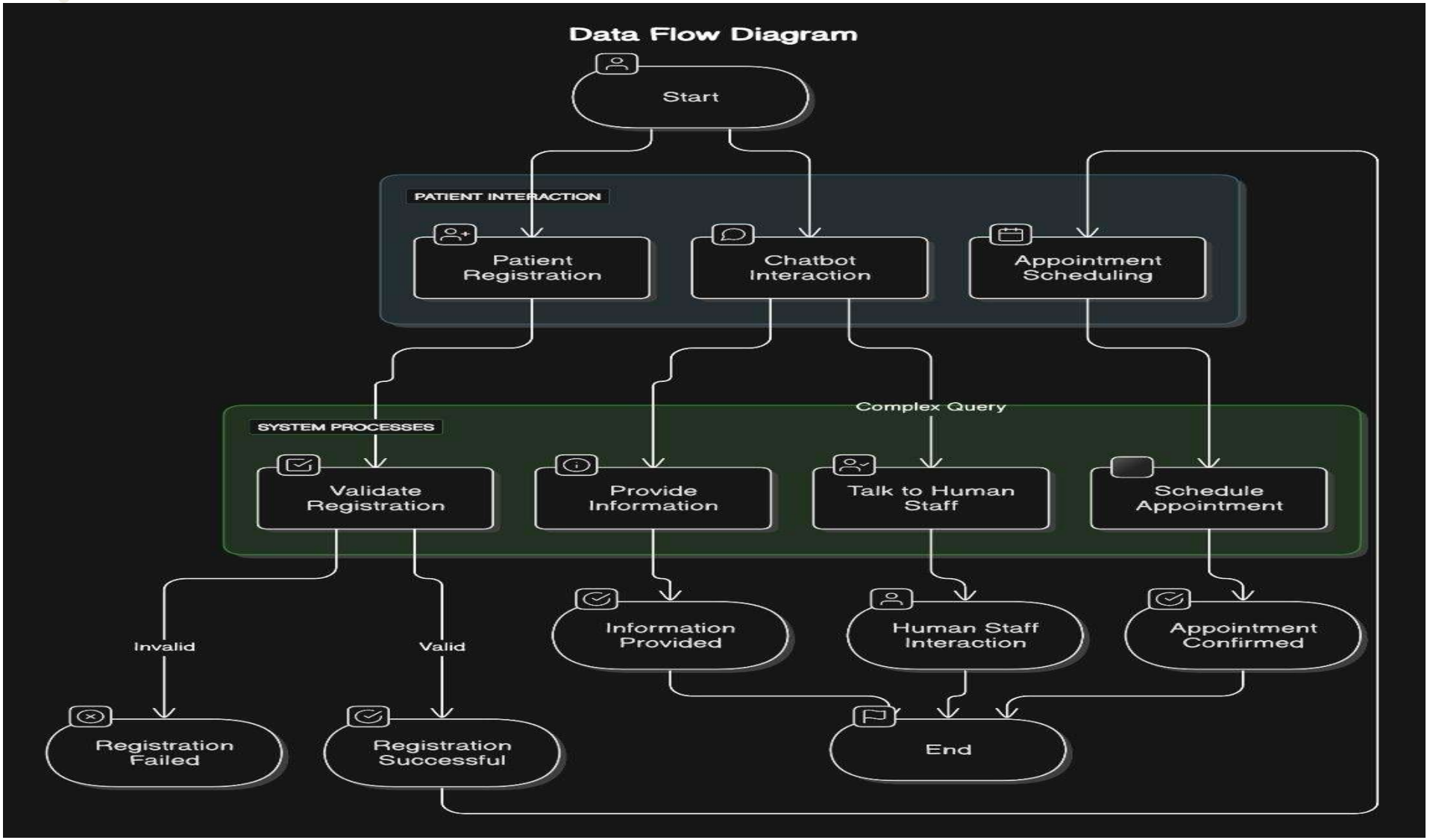
Backend: Node.js with Express for server-side logic and APIs.



Database: MongoDB for data storage.

Additional Tools: Postman, Git/GitHub, Cloud Services, NLP.

Flow Diagram



Project Module

- Patient Registration
- Appointment Scheduling
- Doctor’s Schedule Management Appointment
- Confirmation Appointment
- Patient History
- Follow-up
- Reporting
- Analytics Payment Management

Patient Registration

- Collects and stores basic patient information (name, contact details, medical history).
- Generates unique patient IDs for easy tracking.
- Integrates with the appointment scheduling system.
- Allows patients to update their information via a patient portal.

Appointment Scheduling

- Allows patients to book, reschedule, and cancel appointments online.
- Integration with the patient registration module for seamless data transfer.
- Real-time updates on doctor availability.
- Automatic reminders via email to reduce no-shows.

Doctor's Schedule Management

- Centralized management of doctor's working hours and available slots.
- Real-time updates to the doctor's schedule for booking, rescheduling, or cancellations.
- Patients can book appointments directly based on doctor's availability.
- Integration with the Patient Registration and EHR systems for seamless patient data management.

Confirmation Appointment

- Automatic confirmation of appointments upon booking.
- Option for patients to confirm, reschedule, or cancel appointments.
- Option for patients to confirm, reschedule, or cancel appointments.
- Confirmation sent via email to both patient and doctor.

Patient History

- Comprehensive management of patient medical history.
- Includes past diagnoses, treatments, surgeries, allergies, and medications.
- Integrated with the Electronic Health Records (EHR) system for easy access by doctors.
- Provides a chronological view of patient health for better treatment planning.

Follow-up

- Automated reminders for follow-up appointments based on treatment plans.
- Follow-up scheduling directly integrated with the patient's records.
- Patients receive reminders about post-treatment visits, test results, and medication reviews.
- Enhances patient care by ensuring continuity of care.

Reporting & Analytics

- Generates reports on patient demographics, treatment outcomes, and hospital performance.
- Provides insights into patient care patterns, resource utilization, and overall healthcare trends
- Customizable reports for specific needs: e.g., number of consultations, payment history, etc.
- Real-time data visualizations through dashboards for healthcare administrators.

References

- https://stackoverflow.blog-stack-overflow/
- https://www.tutorialspoint.com/index.htm
- https://www.geeksforgeeks.org/
- https://getbootstrap.com/docs/
- https://www.kaggle.com/datasets