HALLODOC -PLATFORM

BE-CE Semester- VIII

Prepared at

Tatvasoft House, Near Shivalik Business Center, Sarkhej - Gandhinagar Highway Rajpath Rangoli Road Ahmedabad

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Ahmedabad, Gujarat.

SUBMITTED TO

L.J. Institute of Engineering & Technology

Gujarat Technological University

L. J. Institute of Engineering & Technology

Ahmedabad

CERTIFICATE

This is to certify that the project report submitted along with the   project

entitled **HalloDoc** has been carried out by **Aakash Jitendrabhai Dave**

under my guidance in partial fulfillment for the degree of

Bachelor of Engineering in Computer Engineering, 8th Semester of

Gujarat Technological University, Ahmadabad during the academic

year 2023-24.

Ms. Stephy Patel   Prof. Shruti Raval

Internal Guide   **Head of the Department**

L. J. Institute of Engineering & Technology Ahmedabad

DECLARATION

We hereby declare that the Internship report submitted along with the Internship entitled **HalloDoc** submitted in partial fulfillment for the degree of Bachelor of Engineering in **Computer Engineering** to Gujarat Technological University, Ahmedabad, is a bonafide record of original project work carried out by me at TatvaSoft under the supervision of Ms. Sweety Patel and that no part of this report has been directly copied from any students' reports or taken from any other source, without providing due reference.

Name of the Student   Sign of Student

Aakash Jitendrabhai Dave

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to several individuals for supporting me throughout my internship project. First, I wish to express my sincere gratitude to my Internal Guide, **Ms. Stephy Patel**, for his enthusiasm, patience, insightful comments, helpful information, practical advice and unceasing ideas that have helped me tremendously at all times in my project. Without his support and guidance, this project would not have been possible.

I would like to express my endless thanks to my external guide **Ms. Sweety S. Patel** at **HALLODOC- PLATFORM** their sincere and dedicated guidance throughout the project development.

Also, our hearty gratitude to our Head of Department, **prof. Shruti Raval** and our internal guide **Ms. Stephy Patel** for giving us encouragement and technical support on the project.

Aakash Jitendrabhai Dave

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ABSTRACT

HalloDoc is a cutting-edge platform poised to revolutionize healthcare delivery by seamlessly integrating online doctor consultations and diagnostic services. With a user-friendly interface catering to both physicians and patients, HalloDoc streamlines medical processes, enhancing patient care and optimizing workflow for healthcare providers.

The platform offers a comprehensive suite of features, facilitating efficient access to patient records, appointment management, and secure communication channels between doctors and patients. Patients can conveniently request care for themselves or on behalf of others, fostering accessibility and convenience in healthcare delivery.

Admin functionalities empower comprehensive oversight, enabling the review of patient and physician records, case management, and the ability to manage requests effectively.

HalloDoc represents a significant advancement in healthcare technology, bridging the gap between healthcare providers and patients, thereby promoting accessibility, efficiency, and improved patient outcomes in the digital age.

LIST OF FIGURES

LIST OF TABLES

LIST OF SYMBOLS

Entity	Entity
Database Table	D DataBase
Process	Process
Dataflow	
Actor	

LIST OF ABBREVIATIONS

- Docs   Documents

- IDE   Integrated Development Environment

- SQL   Structured Query Language

- JS JavaScript

- HTML   Hyper Text Markup Language

- CSS   Cascading Style Sheet

- CSHTML C Sharp Hyper Text Markup Language

- CS C Sharp

- DBA   Database Administrator

- DBMS   Database Management System

- HR   Human resources

- QA   Quality Assurance

- SMS   Short Message Service

- UI User Interface

- UX   User Experience

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1.   OVERVIEW OF THE COMPANY

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History

Different Products

OVERVIEW OF THE COMPANY

Tatvasoft

TatvaSoft, founded in 2001 and headquartered in Ahmedabad, is a distinguished software product development company known for its expertise in designing and implementing mobile apps, advanced software solutions, and websites. Specializing in crafting comprehensive digital solutions, TatvaSoft assists businesses across various sectors in overcoming their challenges and achieving their goals effectively.

With a skilled team proficient in a multitude of technologies, TatvaSoft offers bespoke website development services tailored to the unique needs of each client. Whether it's creating dynamic e-commerce platforms, interactive corporate websites, or engaging web applications, TatvaSoft leverages its expertise to deliver high-quality, visually appealing, and user-friendly websites.

In addition to website development, TatvaSoft excels in mobile app development and software implementation. By conceptualizing and strategizing the entire development process, the company ensures that projects are executed with precision, reducing risks, managing costs, and delivering solutions that meet and exceed client expectations.

Through its commitment to excellence and innovation, TatvaSoft has earned a reputation as a trusted partner for businesses seeking to leverage technology to drive growth and success in today's digital landscape.

DIFFERENT SERVICES

- Custom Software Development
- Web Development
- Mobile App Development
- UI/UX Design
- Product Development & Maintenance
- Cloud Services
- Big Data & Analytics Solutions
- IT Services & IT Consulting

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2.   OVERVIEW OF THE COMPANY DEPARTMENT

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All Departments

Technical Specifications in department

Sequence of operators

Product stages

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OVERVIEW OF THE COMPANY DEPARTMENT

TatvaSoft: Your One-Stop Shop for Software Development
TatvaSoft is a reputed CMMI level 3 software and mobile app development company with a focus on providing exceptional customer service. We offer a full range of development services to ensure your project's success, from initial concept to final product.

All departments

- HR Department
- Sales Marketing Department
- Development Department
- Testing Department

Technical Specifications in department

- **HR Department**

  Our HR team is committed to finding the best talent and fostering a positive work environment that maximizes employee productivity. They handle everything from recruitment and compensation to training and development.

- **Sales Marketing Department**

  Our sales and marketing team works diligently to understand your target market and develop strategies to reach them effectively. They help you determine the best pricing and positioning for your product or service.

- **Development Department**

  Our development department is comprised of skilled professionals across various specialties, including web development, Android development, and iOS development. We use the latest technologies to create high-quality, user-friendly applications.

- **Testing Department**

  Our testing department plays a vital role in ensuring the quality of your software. They rigorously test all aspects of your application to identify and fix any bugs before it reaches the market.

Sequence of operators

1. **Requirement Gathering & Analysis:** Our research team gathers your requirements, analyzes them, and defines the features to be developed. They also estimate the project's cost and timeline.

2. **Development & Team Allocation:** We leverage expert teams like ASP.NET MVC for backend and a modern UI framework for frontend, ensuring a tailored approach for each project.

3. **Testing & Quality Assurance:** Once development is complete, our testing team meticulously tests the software to ensure it meets all requirements and functions flawlessly.

Product stages
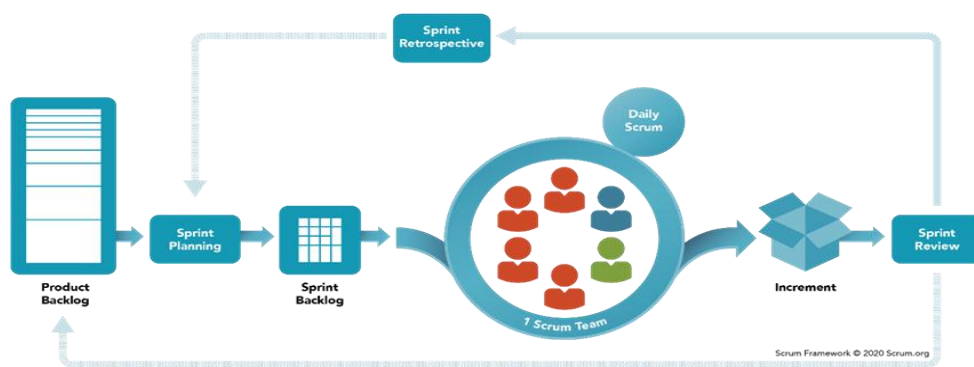
Fig 2.1 Production Stage

Chapter

3

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3.   INTRODUCTION TO INTERNSHIP

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Project Summary

Purpose

Objective

Scope

Technology and Literature Review

Planning

Scheduling

===

INTRODUCTION TO INTERNSHIP

Project Summary

Table 3.1: Project Summary

Project Title	HalloDoc	
Aim	HalloDoc is a cutting-edge healthcare platform aimed at revolutionizing patient-doctor interactions. Our mission is to remove barriers to healthcare by offering virtual consultations and diagnostic services, eliminating the need for physical visits. Like effective marketing relies on understanding ideal customers, HalloDoc tailors healthcare solutions by considering individual needs and preferences. With a user-friendly interface, we empower patients to take control of their health conveniently. HalloDoc is committed to transforming healthcare delivery, ensuring accessible and personalized care anytime, anywhere.	
Developed At	Tatvasoft	
Project Category	Web site	
Tools	IDE	Visual Studio
	Languages/Frameworks	ASP .NET (MVC), PostgreSQL, Bootstrap
	Database	PostgreSQL
Duration	3 Months (January 2024 to April 2024)	

Purpose

HalloDoc aims to break down barriers in healthcare by fostering trust and accessibility. Just as understanding the ideal customer is crucial in effective marketing, we believe in understanding patients deeply. Our platform facilitates virtual consultations and diagnostics, eliminating physical barriers to care. Through personalized interactions, we address individual needs, habits, and aspirations, ensuring tailored healthcare solutions. HalloDoc empowers patients to engage with their health, making informed decisions. By leveraging technology and understanding patients comprehensively, we strive to revolutionize healthcare delivery, providing accessible and trustworthy care to all.

Objective

HalloDoc's core goal is to enhance healthcare accessibility and trust, our platform empowers patients with virtual consultations and diagnostics. Through this innovative approach, HalloDoc aims to revolutionize healthcare, bridging the gap between patients and providers while ensuring accurate representation of patient needs.

Scope

The scope of the HalloDoc project includes facilitating virtual consultations and offering diagnostic services for remote monitoring and analysis. Efficient patient management tools will be developed, along with telemedicine features for remote healthcare delivery. A user-friendly interface and dedicated mobile application will enhance accessibility. Integration with existing healthcare systems will enable seamless data exchange, while features for patient feedback and ratings will promote transparency and accountability. Continuous improvement mechanisms will ensure HalloDoc remains innovative in healthcare technology.

Technology and Literature Review

Table 3.2 Technologies Used to Develop Project

Front End	Bootstrap, HTML, CSS
Back End	ASP .NET
Database	Postgres

Planning

Project / Internship Development Approach and Justification

The software development models are the various processes or methodologies that are being selected for the development of the project depending on the project's aims and goals. There are many development life cycle models that have been developed in order to achieve different required objectives. The models specify the various stages of the process and the order in which they are carried out.

The selection of model has very high impact on the testing that is carried out. It will define the what, where and when of our planned testing, influence regression testing and largely determines which test techniques to use.

According to our project requirements we chose scrum methodology to accomplish project in effective and timely manner.

Scrum Methodology

Scrum is an agile development methodology used in the development of Software based on an iterative and incremental processes. Scrum is adaptable, fast, flexible and effective agile framework that is designed to deliver value to the customer throughout the development of the project.

The primary objective of Scrum is to satisfy the customer's need through an environment of transparency in communication, collective responsibility and continuous progress. The development starts from a general idea of what needs to be built, elaborating a list of characteristics ordered by priority (product backlog) that the owner of the product wants to obtain.

Scrum Methodology & Process

Scrum is precisely an evolution of Agile Management. Scrum methodology is based on a set of very defined practices and roles that must be involved during the software development process. It is a flexible methodology that rewards the application of the 12 agile principles in a context agreed by all the team members of the product.
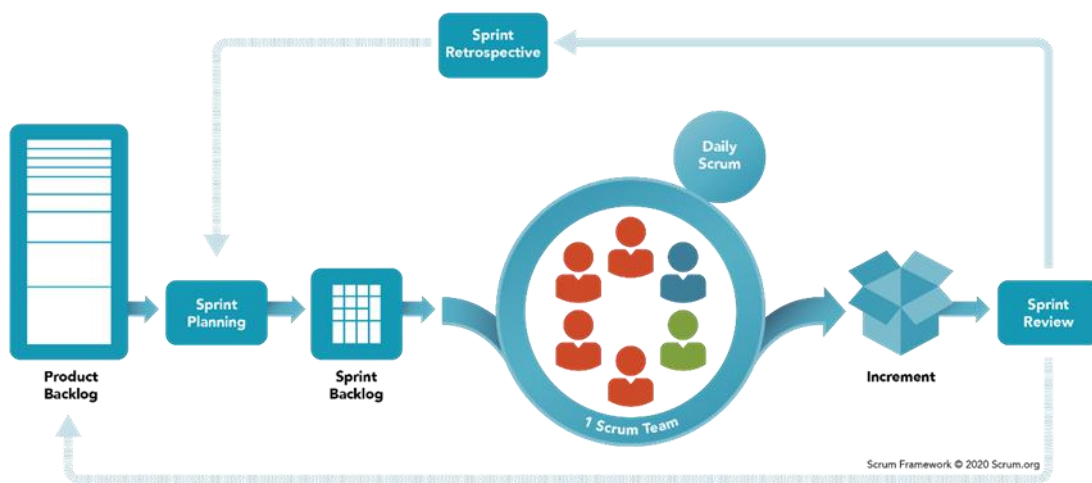
Fig 3.1 Scrum Methodology

("Courtesy of Scrum.org")

Scrum is executed in temporary blocks that are short and periodic, called Sprints, which usually range from 2 to 4 weeks, which is the term for feedback and reflection. Each Sprint is an entity in itself, that is, it provides a complete result, a variation of the final product that must be able to be delivered to the client with the least possible effort when requested.

The process has as a starting point, a list of objectives/ requirements that make up the project plan. It is the client of the project that prioritizes these objectives considering a balance of the value and the cost thereof, that is how the iterations and consequent deliveries are determined.

On the one hand the market demands quality, fast delivery at lower costs, for which a company must be very agile and flexible in the development of products, to achieve short development cycles that can meet the demand of customers without undermining the quality of the result. It is a very easy methodology to implement and very popular for the quick results it gets.

Scrum methodology is used mainly for software development, but other sectors are also taking advantage of its benefits by implementing this methodology in their organizational models such as sales, marketing, & HR teams etc.

Roles and Responsibilities

- Scrum Master

  The person who leads the team guiding them to comply with the rules and processes of the methodology. Scrum master manages the reduction of impediments of the project and works with the Product Owner to maximize the ROI. The Scrum Master is in charge of keeping Scrum up to date, providing coaching, mentoring and training to the teams in case it needs it.

- Product Owner

  Product is the representative of the stakeholders and customers who use the software. They focus on the business part and is responsible for the ROI of the project. They translate the vision of the project to the team, validate the benefits in stories to be incorporated into the Product Backlog and prioritize them on a regular basis.

- Team

  A group of professionals with the necessary technical knowledge who develop the project jointly carrying out the stories they commit to at the start of each sprint.

   Group Dependencies

- Java Development Team

  Java Team develops back-end of web application. The API developed by Java team is then used by other teams to develop front-end and database.

- .Net Development Team
  .Net works in both back-end as well as front-end development. It uses API developed by Java team. It processes documents and make it processable by Java team.

- DBA Team is responsible for entire database related work. It provides database service to Java as well as .Net team.

Scheduling

Week	2	3	4	5	6	7	8	9	10	11	12	13	14
Month / Activity		January				February				March			April
Domain Understanding	■	■	■										
Future Analysis	■	■	■	■	■	■	■						
Learning Process	■	■	■	■	■	■	■	■	■	■	■	■	■
Design			■	■	■	■	■	■					
Coding and Testing						■	■	■	■	■	■	■	■
Documentation				■	■	■	■	■	■	■	■	■	■
Final Documentation												■	■

Fig 3.2 Gantt Chart

(Time scheduling from week 1)

Chapter

4

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4.   SYSTEM ANALYSIS

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Study of Current System

Weakness of Current System

Requirement of New System

Feasibility Study

Use case Diagram

Data flow Diagram

List of main Modules

Features of New System

Selection of Hardware and Software

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SYSTEM ANALYSIS

Study of Current System

1. **Teladoc:**
   -      Limited Physical Examination: Teladoc consultations may lack the ability for healthcare providers to conduct physical examinations, which can be crucial for certain medical conditions or diagnoses.
   -      Lack of Continuity of Care: Since Teladoc connects users with different healthcare providers for each consultation, there may be a lack of continuity of care and familiarity with the patient's medical history.
   -      Technical Limitations: Users in areas with poor internet connectivity or limited access to technology may face challenges in accessing Teladoc's virtual healthcare services.

2. **ZocDoc:**
   -      Limited Provider Availability: Zocdoc's availability of healthcare providers may vary depending on location and specialty, leading to potential difficulties in finding appointments with preferred providers.
   -      Reliance on User Reviews: While user reviews can provide valuable insights, they may not always accurately reflect the quality of care provided by healthcare providers listed on Zocdoc.
   -      Appointment Scheduling Issues: Users may encounter scheduling conflicts or difficulties in booking appointments due to limited availability or discrepancies between Zocdoc's listings and actual provider schedules.

3. **Amwell:**
   -      Diagnosis Limitations: Remote consultations through Amwell may have limitations in diagnosing certain medical conditions that require in-person evaluations or diagnostic tests.
   -      Privacy Concerns: Users may have concerns about the privacy and security of their personal health information when using Amwell's virtual healthcare services, especially with regards to data breaches or unauthorized access.
   -      Insurance Coverage: While Amwell accepts various insurance plans, not all services or consultations may be covered by insurance, potentially leading to out-of-pocket expenses for users.

Weakness of Current System

- Lack of Physical Examination
- Continuity of Care Issues
- Technical Limitations
- Limited Provider Availability
- Reliance on User Reviews
- Appointment Scheduling Issues

- Diagnosis Limitations
- Privacy Concerns

Requirement of New System

● Comprehensive Virtual Care
● Integrated Patient Management
● User-Friendly Interface
● Multi-Platform Accessibility
● Secure Communication
● Remote Monitoring Capabilities
● Interoperability with Existing Systems
● Personalization and Customization
● Scalability and Flexibility
● Regulatory Compliance
● Feedback and Improvement Mechanisms

Feasibility Study

Scheduling for the Project

Table: 4.1 Activity of Proposed System

Title	Date	Status
Study Time	15/01/2024 to 22/01/2024	**Completed**
Introduction of languages	22/01/2024 to 24/01/2024	**Completed**
Data Gathering and Requirements Analysis	24/01/2024 to 26/01/2024	**Completed**
Design Diagrams	26/01/2024 to 29/01/2024	**Completed**
Data Dictionary	29/01/2024 to 30/01/2024	**Completed**
Database, Stored Procedure	30/01/2024 to 01/02/2024	**Completed**

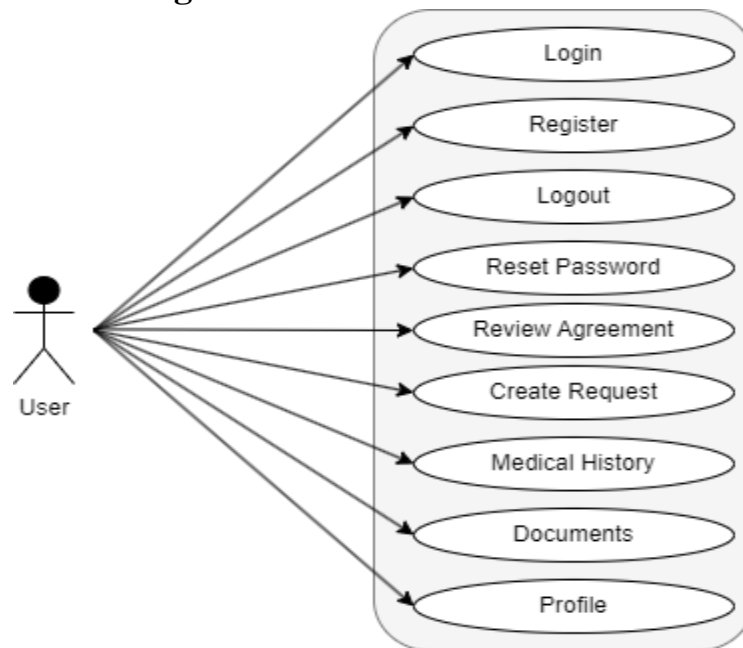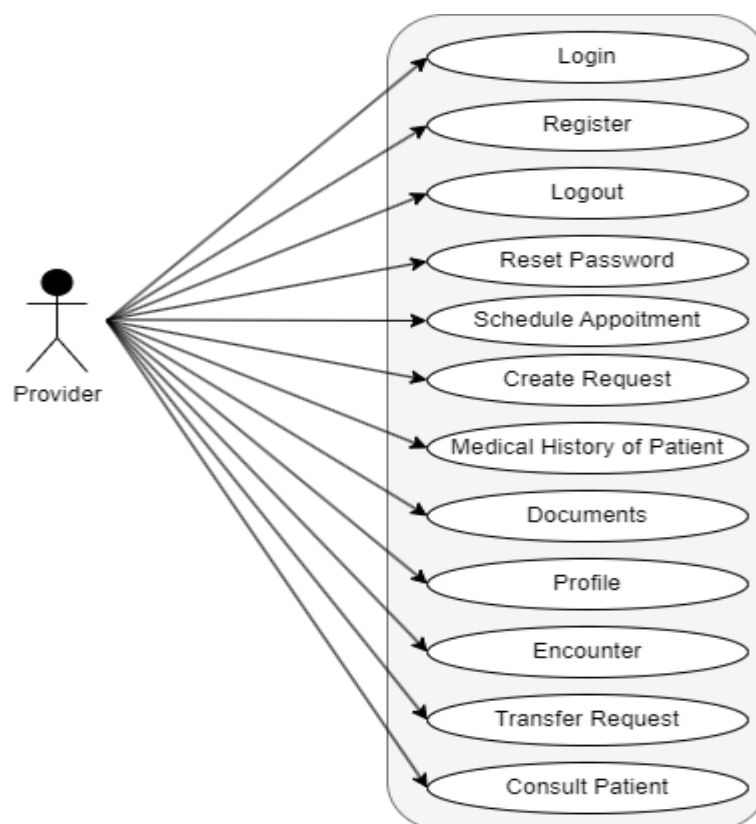|		
Template Design, Reports	02/02/2024 to 17/02/2022	**Completed**
Coding/Implementation	17/03/2024 to 04/04/2024	**Completed**
Change Detection	05/04/2024 to 10/04/2024	**Completed**
Testing	11/04/2024 to 12/04/2024	**Completed**
Referencing the change	13/04/2024 to 15/04/2024	**Completed**

Use Case Diagram

Fig 4.2 User - Use case diagram

Fig 4.3 Provider - Use case diagram
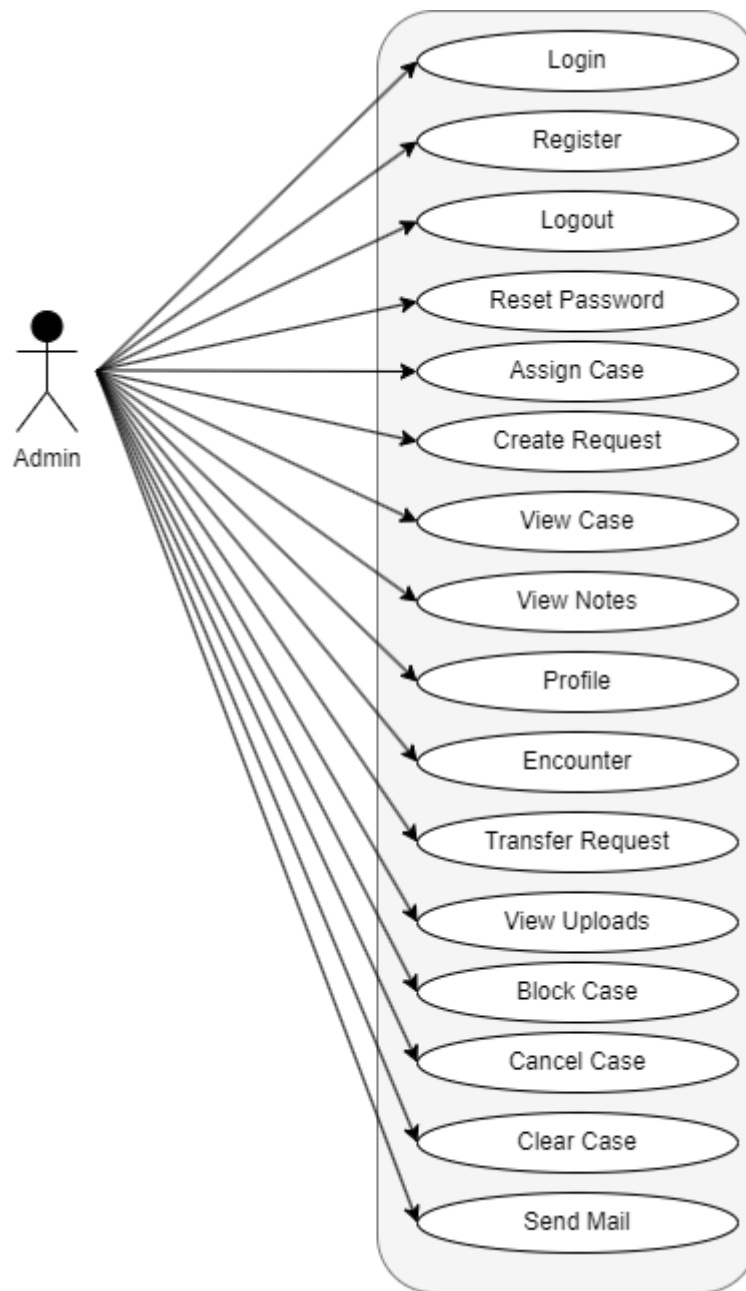
Fig 4.4 Admin - Use case diagram

Data Flow Diagram

Fig. 4.5 Data Flow Diagram (Level 0)

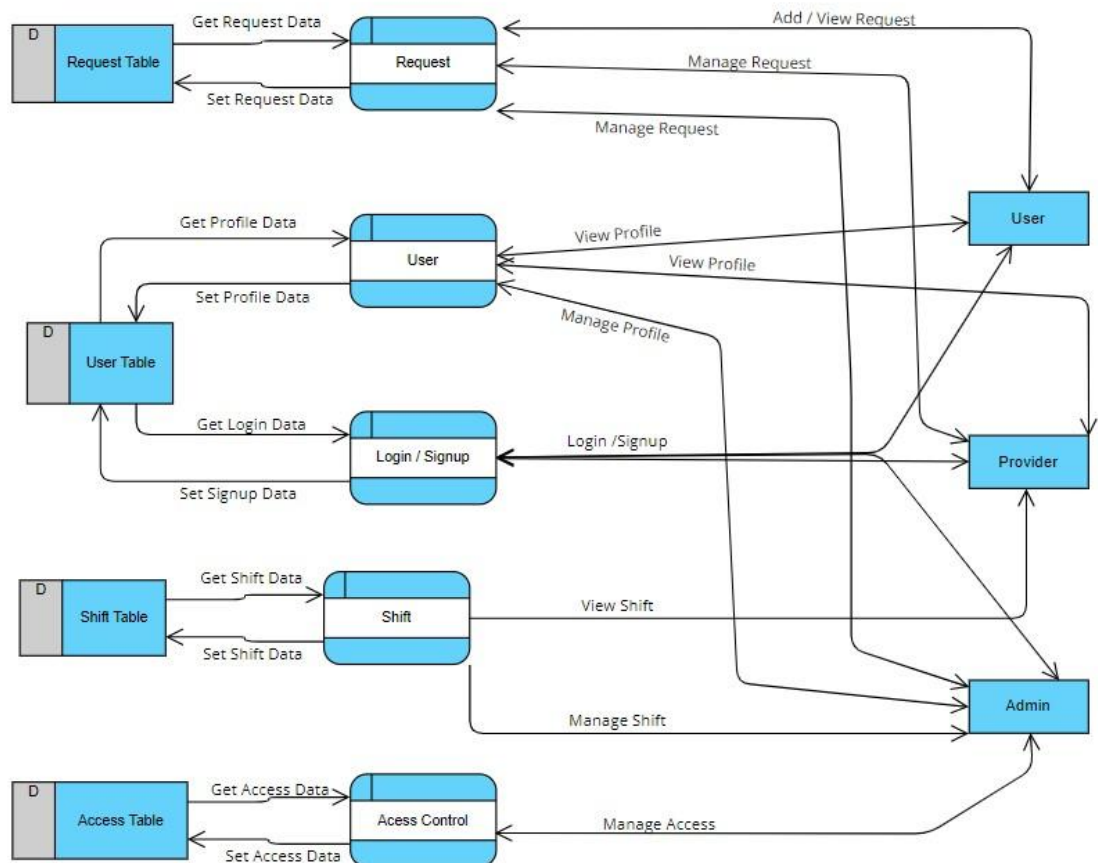Fig 4.6 Data Flow Diagram (Level 1 Admin)

Fig 4.4 Data Flow Diagram (Level 1 Client/User)

List of Modules

● System consists mainly two main modules:

    i.   Admin

    ii.   Provider iii. Patient (User)

Features of New System

This website is going to be used by mainly 3 kinds of user that deals with this application:

1. Admin

2. Provider

3. Patient (User)

1. Admin:

   - Role: The admin user has overarching control and management responsibilities within the healthcare system.

   - Responsibilities:

   - Manage user accounts and permissions, including creating, modifying, and deleting accounts as needed.

   - Configure system settings and preferences, such as appointment scheduling rules and billing parameters.

   - Monitor system performance and resolve technical issues or security concerns.

   - Generate reports and analytics to track key performance indicators and assess system usage.

   - Ensure compliance with regulatory requirements and standards for healthcare data privacy and security.

   - Collaborate with providers and patients to gather feedback and implement system improvements.

2. Provider:

   - Role: The provider user includes healthcare professionals who deliver medical services within the system.

   - Responsibilities:

   - Conduct virtual consultations with patients, including diagnosing medical conditions, prescribing medications, and developing treatment plans.

   - Review patient medical records and history to provide personalized care and recommendations.

   - Document patient encounters accurately and comprehensively, ensuring all relevant information is captured for continuity of care.

   - Collaborate with other healthcare providers and specialists as needed for multidisciplinary care.

   - Communicate with patients effectively and compassionately, addressing their concerns and providing education on health management.

   - Stay updated on medical best practices and guidelines to deliver high-quality care and improve patient outcomes.

3. Patient:
   - Role: The patient user represents individuals seeking healthcare services and managing their health within the system.

- Responsibilities:

- Schedule appointments with healthcare providers, including selecting preferred dates and times for consultations.

- Provide accurate and complete medical history information during consultations to facilitate diagnosis and treatment.

- Participate actively in virtual consultations, asking questions, expressing concerns, and following provider recommendations.

- Adhere to prescribed treatment plans, including taking medications as directed and attending follow-up appointments.

- Communicate openly and honestly with healthcare providers about symptoms, changes in health status, or treatment adherence issues.

- Access educational resources and tools within the system to learn about health conditions, preventive care measures, and lifestyle management strategies.

Selection of Hardware and Software

- Hardware

  o Development Machine Requirement (Average performance)

  - 8 GB RAM

  - 50 GB HDD

  - Internet   o   Client

  Machine Requirement

  - 4 GB RAM

  - 5 GB of HDD space

  - Network related tools

  o Host Machine Requirement

  - 32 GB RAM

  - 500 GB of HDD space

  - Network related tools

- Software o Development Machine Requirements

  - Visual Studio

  - PostgreSQL

  - PgAdmin

  - Browser   o   Client

  Machine Requirements

System Analysis

▪ Browser   o Host Machine
Requirements (Linux)

Chapter

5

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5.   SYSTEM DESIGN

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System Design and Methodology Database

Design   Interface Design

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SYSTEM DESIGN

System Design and Methodology

● We are using Scrum Methodology in development process.

Scrum is an agile development methodology used in the development of Software based on iterative and incremental processes. Scrum is adaptable, fast, flexible and effective agile framework that is designed to deliver value to the customer throughout the development of the project. The primary objective of

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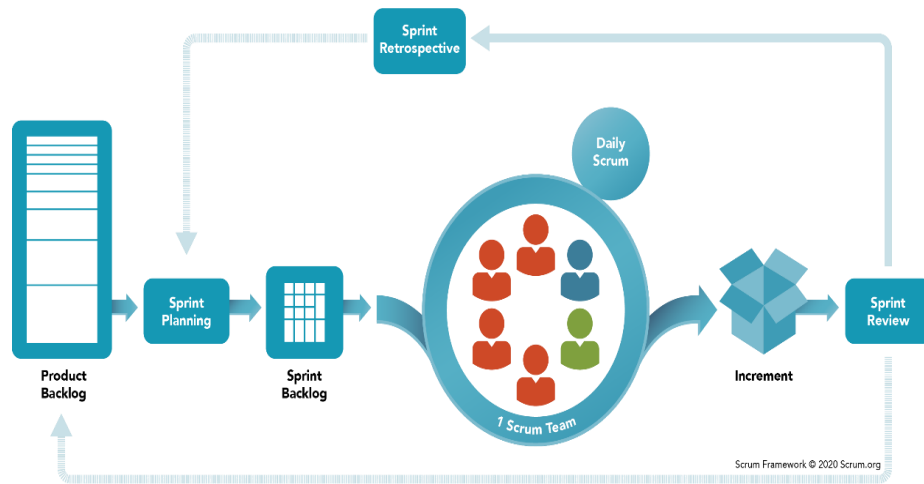

Fig 5.1 Scrum Methodology

Scrum Methodology & Process

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Scrum methodology is used mainly for software development, but other sectors are also taking advantage of its benefits by implementing this methodology in their organizational models such as sales, marketing, & HR teams etc.

Different Roles in Scrum

Fig 5.2 Different Roles in Scrum

Database Design

Table 5.1 Admin

Table Name	Admin			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
AdminId	int		No	Its Primary Key.
AspNetUserId	nvarchar	128	No	Its Foreign key of AspNetUsers Table.
FirstName	nvarchar	100	No	

Field	Type	Length	Nullable	Comments
LastName	**nvarchar**	**100**	**Yes**	
Email	**nvarchar**	**50**	**No**	
Mobile	**nvarchar**	**20**	**Yes**	
Address1	**nvarchar**	**500**	**Yes**	
Address2		**500**	**Yes**	
City	**nvarchar**	**100**	**Yes**	
RegionId	**int**		**Yes**	
Zip	**nvarchar**	**10**	**Yes**	
AltPhone	**nvarchar**	**20**	**Yes**	
CreatedBy	**nvarchar**	**128**	**No**	
CreatedDate	**datetime**		**No**	
ModifiedBy	**nvarchar**	**128**	**Yes**	**Its Foreign key of AspNetUsers Table.**
ModifiedDate	**datetime**		**Yes**	
Status	**tinyint**		**Yes**	
IsDeleted	**bit**		**Yes**	
RoleId	**int**		**Yes**	

Table 5.2 AdminRegion

Table Name	AdminRegion			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
AdminRegionId	**int**		**No**	**Its Primary Key.**
AdminId	**int**		**No**	**Its Foreign key of Admin Table.**
RegionId	**int**		**No**	**Its Foreign key of Region Table.**

Table 5.3 AspNetRoles

Table Name	AspNetRoles			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
Id	**nvarchar**	**128**	**No**	**Its Primary Key.**
Name	**nvarchar**	**256**	**No**	

Table 5.4 AspNetUserRoles

Table Name	AspNetUserRoles			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
UserId	**nvarchar**	**128**	**No**	**Its Primary Key.Its Foreign key of AspNetUsers Table.**
RoleId	**nvarchar**	**128**	**No**	**Its Primary Key.**

Table 5.5 AspNetUsers

Table Name	AspNetUsers			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
Id	nvarchar	128	No	Its Primary Key.
UserName	nvarchar	256	No	
PasswordHash	nvarchar	MAX	Yes	
Email	nvarchar	256	Yes	
PhoneNumber	nvarchar	20	Yes	
IP	nvarchar	20	Yes	
CreatedDate	datetime		No	
CreatedDate	datetime		Yes	

Table 5.6 BlockRequests

Table Name	BlockRequests			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
BlockRequestId	int		No	Its Primary Key.
PhoneNumber	nvarchar	50	Yes	
Email	nvarchar	50	Yes	
IsActive	bit		Yes	
Reason	nvarchar	MAX	Yes	
RequestId	nvarchar	50	No	
IP	nvarchar	20	Yes	
CreatedDate	datetime		Yes	
ModifiedDate	datetime		Yes	

Table 5.7 Business

Table Name	Business			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
BusinessId	int	100	No	Its Primary Key.
Name	nvarchar		No	
Address1	nvarchar	500	Yes	
Address2	nvarchar	500	Yes	
City	nvarchar	50	Yes	
RegionId	int		Yes	Its Foreign key of Region Table.
ZipCode	nvarchar	10	Yes	
PhoneNumber	nvarchar	20	Yes	
FaxNumber	nvarchar	20	Yes	
IsRegistered	bit		Yes	

CreatedBy	nvarchar	128	Yes	Its Foreign key of AspNetUsers Table.
CreatedDate	datetime		No	
ModifiedBy	nvarchar	128	Yes	Its Foreign key of AspNetUsers Table.
ModifiedDate	datetime		Yes	
Status	tinyint		Yes	
IsDeleted	bit		Yes	
IP	nvarchar	20	Yes	

Table 5.8 CaseTag

Table Name	CaseTag			
Field Name	Data Type	Length	Nullable	Comments
CaseTagId	int		No	
Name	nvarchar	50	No	

Table 5.9 Concierge

Table Name	Concierge			
Field Name	Data Type	Length	Nullable	Comments
ConciergeId	int		No	Its Primary Key.
ConciergeName	nvarchar	100	No	
Address	nvarchar	150	Yes	
Street	nvarchar	50	No	
City	nvarchar	50	No	
State	nvarchar	50	No	
ZipCode	nvarchar	50	No	
CreatedDate	datetime		No	
RegionId	int		No	Its Foreign key of Region Table.
RoleId	nvarchar	20	Yes	

Table 5.10 EmailLog

Table Name	EmailLog			
Field Name	Data Type	Length	Nullable	Comments
EmailLogID	decimal	9	No	Its Primary Key.
EmailTemplate	nvarchar	MAX	No	
SubjectName	nvarchar	200	No	
EmailID	nvarchar	200	No	
ConfirmationNumber	nvarchar	200	Yes	
FilePath	nvarchar	MAX	Yes	
RoleId	int		Yes	
RequestId	int		Yes	
AdminId	int		Yes	
PhysicianId	int		Yes	

CreateDate	datetime		No	
SentDate	datetime		Yes	
IsEmailSent	bit		Yes	
SentTries	int		Yes	
Action	int		Yes	

Table 5.11 HealthProfessionals

Table Name	HealthProfessionals			
Field Name	Data Type	Length	Nullable	Comments
VendorId	int		No	Its Primary Key.
VendorName	nvarchar	100	No	
Profession	int		Yes	Its Foreign key of HealthProfessionalType Table.
FaxNumber	nvarchar	50	No	
Address	nvarchar	150	Yes	
City	nvarchar	100	Yes	
State	nvarchar	50	Yes	
Zip	nvarchar	50	Yes	
RegionId	int		Yes	
CreatedDate	datetime		No	
ModifiedDate	datetime		Yes	
PhoneNumber	nvarchar	100	Yes	
IsDeleted	bit		Yes	
IP	nvarchar	20	Yes	
Email	nvarchar	50	Yes	
BusinessContact	nvarchar	100	Yes	

Table 5.12 OrderDetails

Table Name	OrderDetails			
Field Name	Data Type	Length	Nullable	Comments
Id	int		No	Its Primary Key.
VendorId	int		Yes	
RequestId	int		Yes	
FaxNumber	nvarchar	50	Yes	
Email	nvarchar	50	Yes	
BusinessContact	nvarchar	100	Yes	
Prescription	nvarchar	max	Yes	
NoOfRefill	int		Yes	
CreatedDate	datetime		Yes	
CreatedBy	nvarchar	100	Yes	

Table 5.13 HealthProfessionalType

Table Name	HealthProfessionalType			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
HealthProfessionalId	int		No	**Its Primary Key.**
ProfessionName	nvarchar	50	No	
CreatedDate	datetime		No	
IsActive	bit		Yes	
IsDeleted	bit		Yes	

Table 5.14 Menu

Table Name	Menu			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
MenuId	int		No	**Its Primary Key.**
Name	nvarchar	50	No	
AccountType	tinyint		No	**1 - Admin, 2 - Physician**
SortOrder	int		Yes	

Table 5.15 Physician

Table Name	Physician			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
PhysicianId	int		No	**Its Primary Key.**
AspNetUserId	nvarchar	128	Yes	**Its Foreign key of AspNetUsers Table.**
FirstName	nvarchar	100	No	
LastName	nvarchar	100	Yes	
Email	nvarchar	50	No	
Mobile	nvarchar	20	Yes	
MedicalLicense	nvarchar	500	Yes	
Photo	nvarchar	100	Yes	
AdminNotes	nvarchar	500	Yes	
IsAgreementDoc	bit		Yes	
IsBackgroundDoc	bit		Yes	
IsTrainingDoc	bit		Yes	
IsNonDisclosureDoc	bit		Yes	
Address1	nvarchar	500	Yes	
Address2	nvarchar	500	Yes	
City	nvarchar	100	Yes	
RegionId	int		Yes	
Zip	nvarchar	10	Yes	
AltPhone	nvarchar	20	Yes	
CreatedBy	nvarchar	128	No	**Its Foreign key of AspNetUsers Table.**

CreatedDate	**datetime**		**No**	
ModifiedBy	**nvarchar**	**128**	**Yes**	**Its Foreign key of AspNetUsers Table.**
ModifiedDate	**datetime**		**Yes**	
Status	**tinyint**		**Yes**	
BusinessName	**nvarchar**	**100**	**No**	
BusinessWebsite	**nvarchar**	**200**	**No**	
IsDeleted	**bit**		**Yes**	
RoleId	**int**		**Yes**	
NPINumber	**nvarchar**	**500**	**Yes**	
IsLicenseDoc	**bit**		**Yes**	
Signature	**nvarchar**	**100**	**Yes**	
IsCredentialDoc	**bit**		**Yes**	
IsTokenGenerate	**bit**		**Yes**	
SyncEmailAddress	**nvarchar**	**50**	**Yes**	

Table 5.16 PhysicianLocation

Table Name	**PhysicianLocation**			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
LocationId	**int**		**No**	
PhysicianId	**int**		**No**	**Its Foreign key of Physician Table.**
Latitude	**decimal**	**9**	**Yes**	
Longitude	**decimal**	**9**	**Yes**	
CreatedDate	**datetime**		**Yes**	
PhysicianName	**nvarchar**	**50**	**Yes**	
Address	**nvarchar**	**500**	**Yes**	

Table 5.17 PhysicianNotification

Table Name	**PhysicianNotification**			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
id	**int**		**No**	**Its Primary Key.**
PhysicianId	**int**		**No**	**Its Foreign key of Physician Table.**
IsNotificationStopped	**bit**		**No**	

Table 5.18 PhysicianRegion

Table Name	**PhysicianRegion**			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**

PhysicianRegionId	int		No	Its Primary Key.
PhysicianId	int		No	Its Foreign key of Physician Table.
RegionId	int		No	Its Foreign key of Region Table.

Table 5.19 Region

Table Name	Region			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
RegionId	int		No	Its Primary Key.
Name	nvarchar	50	No	
Abbreviation	nvarchar	50	Yes	

Table 5.20 Request

Table Name	Request			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
RequestId	int		No	Its Primary Key.
RequestTypeId	int		No	1- Business, 2- Patient, 3- Family & 4- Concierge
UserId	int		Yes	Its Foreign key of User Table.
FirstName	nvarchar	100	Yes	
LastName	nvarchar	100	Yes	
PhoneNumber	nvarchar	23	Yes	
Email	nvarchar	50	Yes	
Status	tinyint		No	1-Unassigned,2-Accepted,3-Cancelled,4Reserving,5-MDEnRoute,6-MDOnSite,7-FollowUp,8-Closed,9-Locked,10-Declined,11Consult,12-Clear,13-CancelledByProvider,14CCUploadedByClient,15-CCApprovedByAdmin
PhysicianId	int		Yes	Its Foreign key of Physician Table.
ConfirmationNumber	nvarchar	20	Yes	
CreatedDate	datetime		No	
IsDeleted	bit		Yes	
ModifiedDate	datetime		Yes	
DeclinedBy	varchar	250	Yes	
IsUrgentEmailSent	bit		No	
LastWellnessDate	datetime		Yes	
IsMobile	bit		Yes	
CallType	tinyint		Yes	
CompletedByPhysician	bit		Yes	
LastReservationDate	datetime		Yes	
AcceptedDate	datetime		Yes	
RelationName	nvarchar	100	Yes	

CaseNumber	nvarchar	50	Yes	
IP	nvarchar	20	Yes	
CaseTag	nvarchar	50	Yes	
CaseTagPhysician	nvarchar	50	Yes	
PatientAccountId	nvarchar	128	Yes	
CreatedUserId	int		Yes	

Table 5.21 RequestBusiness

Table Name	RequestBusiness			
Field Name	Data Type	Length	Nullable	Comments
RequestBusinessId	int		No	Its Primary Key.
RequestId	int		No	Its Foreign key of Request Table.
BusinessId	int		No	Its Foreign key of Business Table.
IP	nvarchar	20	Yes	

Table 5.22 RequestClient

Table Name	RequestClient			
Field Name	Data Type	Length	Nullable	Comments
RequestClientId	int		No	Its Primary Key.
RequestId	int		No	Its Foreign key of Request Table.
FirstName	nvarchar	100	No	
LastName	nvarchar	100	Yes	
PhoneNumber	nvarchar	23	Yes	
Location	nvarchar	100	Yes	
Address	nvarchar	500	Yes	
RegionId	int		Yes	Its Foreign key of Region Table.
NotiMobile	nvarchar	20	Yes	
NotiEmail	nvarchar	50	Yes	
Notes	nvarchar	500	Yes	
Email	nvarchar	50	Yes	
strMonth	nvarchar	20	Yes	
intYear	int		Yes	
intDate	int		Yes	
IsMobile	bit		Yes	
Street	nvarchar	100	Yes	
City	nvarchar	100	Yes	
State	nvarchar	100	Yes	
ZipCode	nvarchar	10	Yes	
CommunicationType	tinyint		Yes	
RemindReservationCount	tinyint		Yes	
RemindHouseCallCount	tinyint		Yes	

IsSetFollowupSent	tinyint		Yes	
IP	nvarchar	20	Yes	
IsReservationReminderSen t	tinyint		Yes	
Latitude	decimal	9	Yes	
Longitude	decimal	9	Yes	

Table 5.23 RequestClosed

Table Name	RequestClosed			
Field Name	Data Type	Length	Nullable	Comments
RequestClosedId	int		No	Its Primary Key.
RequestId	int		No	Its Foreign key of Request Table.
RequestStatusLogId	int		No	Its Foreign key of RequestStatusLog Table.
PhyNotes	nvarchar	500	Yes	
ClientNotes	nvarchar	500	Yes	
IP	nvarchar	20	Yes	

Table 5.24 RequestConcierge

Table Name	RequestConcierge			
Field Name	Data Type	Length	Nullable	Comments
Id	int		No	Its Primary Key.
RequestId	int		No	Its Foreign key of Request Table.
ConciergeId	int		No	Its Foreign key of Concierge Table.
IP	nvarchar	20	Yes	

Table 5.25 RequestNotes

Table Name	RequestNotes			
Field Name	Data Type	Length	Nullable	Comments
RequestNotesId	Int		No	Its Primary Key.
RequestId	Int		No	Its Foreign key of Request Table.
strMonth	Nvarchar	20	Yes	
intYear	Int		Yes	
intDate	Int		Yes	
PhysicianNotes	Nvarchar	500	Yes	
AdminNotes	Nvarchar	500	Yes	
CreatedBy	Nvarchar	128	No	

CreatedDate	Datetime		No	
ModifiedBy	Nvarchar	128	Yes	
ModifiedDate	Datetime		Yes	
IP	Nvarchar	20	Yes	
AdministrativeNotes	Nvarchar	500	Yes	

Table 5.26 RequestStatusLog

Table Name	RequestStatusLog			
Field Name	Data Type	Length	Nullable	Comments
RequestStatusLogId	int		No	Its Primary Key.
RequestId	int		No	Its Foreign key of Request Table.
Status	tinyint		No	
PhysicianId	int		Yes	Its Foreign key of Physician Table.
AdminId	int		Yes	Its Foreign key of Admin Table.
TransToPhysicianId	int		Yes	Its Foreign key of Physician Table.
Notes	nvarchar	500	Yes	
CreatedDate	datetime		No	
IP	nvarchar	20	Yes	
TransToAdmin	bit		Yes	

Table 5.27 RequestType

Table Name	RequestType			
Field Name	Data Type	Length	Nullable	Comments
RequestTypeId	int		No	Its Primary Key.
Name	nvarchar	50	No	

Table 5.28 RequestWiseFile

Table Name	RequestWiseFile			
Field Name	Data Type	Length	Nullable	Comments
RequestWiseFileID	int		No	Its Primary Key.
RequestId	int		No	Its Foreign key of Request Table.
FileName	nvarchar	500	No	
CreatedDate	datetime		No	
PhysicianId	int		Yes	Its Foreign key of Physician Table.
AdminId	int		Yes	Its Foreign key of Admin Table.
DocType	tinyint		Yes	1-TestOne,2-MedicalReport,3-CostReceipt
IsFrontSide	bit		Yes	
IsCompensation	bit		Yes	

IP	nvarchar	20	Yes	
IsFinalize	bit		Yes	
IsDeleted	bit		Yes	
IsPatientRecords	bit		Yes	

Table 5.29 Role

Table Name	Role			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
RoleId	int		No	Its Primary Key.
Name	nvarchar	50	No	
AccountType	tinyint		No	1 - Admin, 2 - Physician
CreatedBy	nvarchar	128	No	
CreatedDate	datetime		No	
ModifiedBy	nvarchar	128	Yes	
ModifiedDate	datetime		Yes	
IsDeleted	bit		No	
IP	nvarchar	20	Yes	

Table 5.30 RoleMenu

Table Name	RoleMenu			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
RoleMenuId	int		No	Its Primary Key.
RoleId	int		No	Its Foreign key of Role Table.
MenuId	int		No	Its Foreign key of Menu Table.

Table 5.31 Shift

Table Name	Shift			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
ShiftId	int		No	Its Primary Key.
PhysicianId	int		No	Its Foreign key of Physician Table.
StartDate	date		No	
IsRepeat	bit		No	
WeekDays	char	7	Yes	
RepeatUpto	int		Yes	
CreatedBy	nvarchar	128	No	Its Foreign key of AspNetUsers Table.
CreatedDate	datetime		No	
IP	nvarchar	20	Yes	

Table 5.32 ShiftDetail

Table Name	ShiftDetail			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
ShiftDetailId	**int**		**No**	**Its Primary Key.**
ShiftId	**int**		**No**	**Its Foreign key of Shift Table.**
ShiftDate	**datetime**		**No**	
RegionId	**int**		**Yes**	
StartTime	**time**		**No**	
EndTime	**time**		**No**	
Status	**tinyint**		**No**	
IsDeleted	**bit**		**No**	
ModifiedBy	**nvarchar**	**128**	**Yes**	**Its Foreign key of AspNetUsers Table.**
ModifiedDate	**datetime**		**Yes**	
LastRunningDate	**datetime**		**Yes**	
EventId	**nvarchar**	**100**	**Yes**	

Table 5.33 ShiftDetailRegion

Table Name	ShiftDetailRegion			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
ShiftDetailRegionId	**int**		**No**	**Its Primary Key.**
ShiftDetailId	**int**		**No**	**Its Foreign key of ShiftDetail Table.**
RegionId	**int**		**No**	**Its Foreign key of Region Table.**
IsDeleted	**bit**		**Yes**	

Table 5.34 SMSLog

Table Name	SMSLog			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
SMSLogID	**decimal**	**9**	**No**	**Its Primary Key.**
SMSTemplate	**nvarchar**	**MAX**	**No**	
MobileNumber	**nvarchar**	**50**	**No**	
ConfirmationNumber	**nvarchar**	**200**	**Yes**	
RoleId	**int**		**Yes**	
AdminId	**int**		**Yes**	
RequestId	**int**		**Yes**	
PhysicianId	**int**		**Yes**	
CreateDate	**datetime**		**No**	
SentDate	**datetime**		**Yes**	
IsSMSSent	**bit**		**Yes**	
SentTries	**int**		**No**	
Action	**int**		**Yes**	

Table 5.35 User

Table Name	User			
Field Name	**Data Type**	**Length**	**Nullable**	**Comments**
UserId	int		No	Its Primary Key.
AspNetUserId	nvarchar	128	Yes	Its Foreign key of AspNetUsers Table.
FirstName	nvarchar	100	No	
LastName	nvarchar	100	Yes	
Email	nvarchar	50	No	
Mobile	nvarchar	20	Yes	
IsMobile	bit		Yes	
Street	nvarchar	100	Yes	
City	nvarchar	100	Yes	
State	nvarchar	100	Yes	
RegionId	int		Yes	
ZipCode	nvarchar	10	Yes	
strMonth	nvarchar	20	Yes	
intYear	int		Yes	
intDate	int		Yes	
CreatedBy	nvarchar	128	No	
CreatedDate	datetime		No	
ModifiedBy	nvarchar	128	Yes	
ModifiedDate	datetime		Yes	
Status	tinyint		Yes	
IsDeleted	bit		Yes	
IP	nvarchar	20	Yes	
IsRequestWithEmail	bit			

Interface Design

Fig 5.3 Landing Page

Description: Landing page will shown when website url is searched
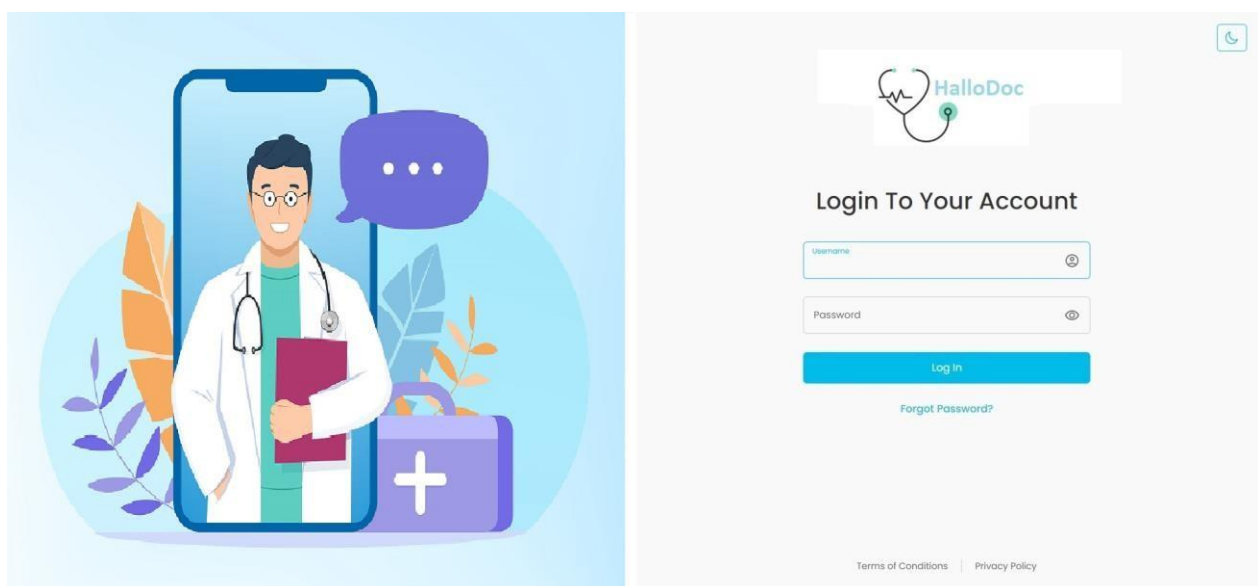
Fig 5.4 Login Page

Description: Login page with personal details such as email address and password after successfully submitted all the details and then clicking on log in button user can successfully enter in the system and there is also option for forgot password.
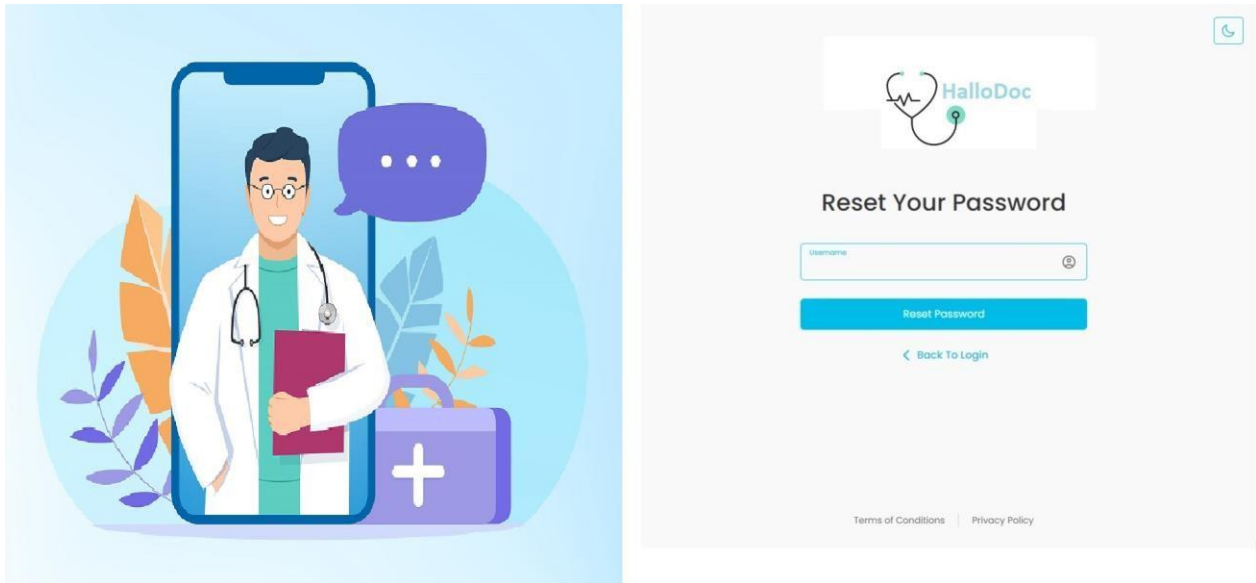
Fig 5.5 Reset Password Page

Description: The reset password page prompts users to enter their email address. Upon submission, a password reset link is sent to the email. Users click the link, set a new password, and gain access to their account.
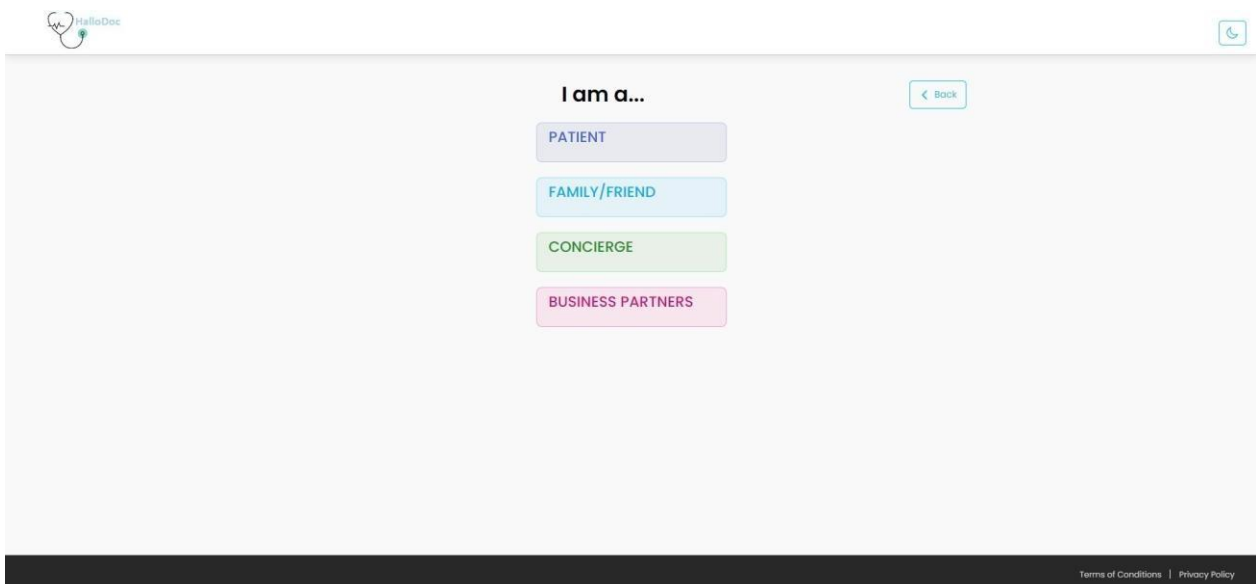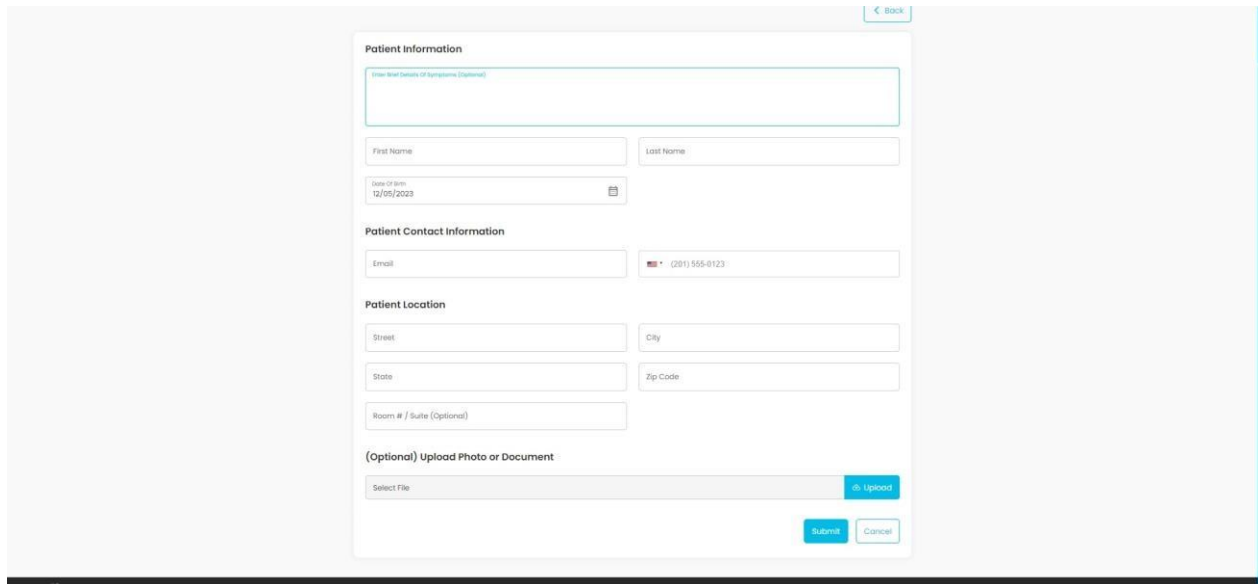
Fig 5.6 Select Role Page

Description: This is Screenshot of submit request screen it shows four different types of request Patient,Family/Friend,Concierge and Business Partners

Fig 5.7 Submit Request Page

Description: This is Screenshot of form for submit request patient. Patient can upload any medical documents here .

Fig 5.8 Info Alert Page

Description: This is Screenshot Of popup that warns user to give correct data while submitting request as any of these 3 request types same pop up will shown when forms are loaded excluding Patient type.

Fig 5.9 Family/Friend Request Page

Description: This screenshort shows family friend request form.

Fig 5.10 Concierge Request Page

Description: This screenshort shows concierge request form.

Fig 5.11 Business Request Page

Description: This is screenshort shows submit request as business partners.

Fig 5.12 Patient Dashboard Page

Description: After successful log in this is dashboard page of patient site.
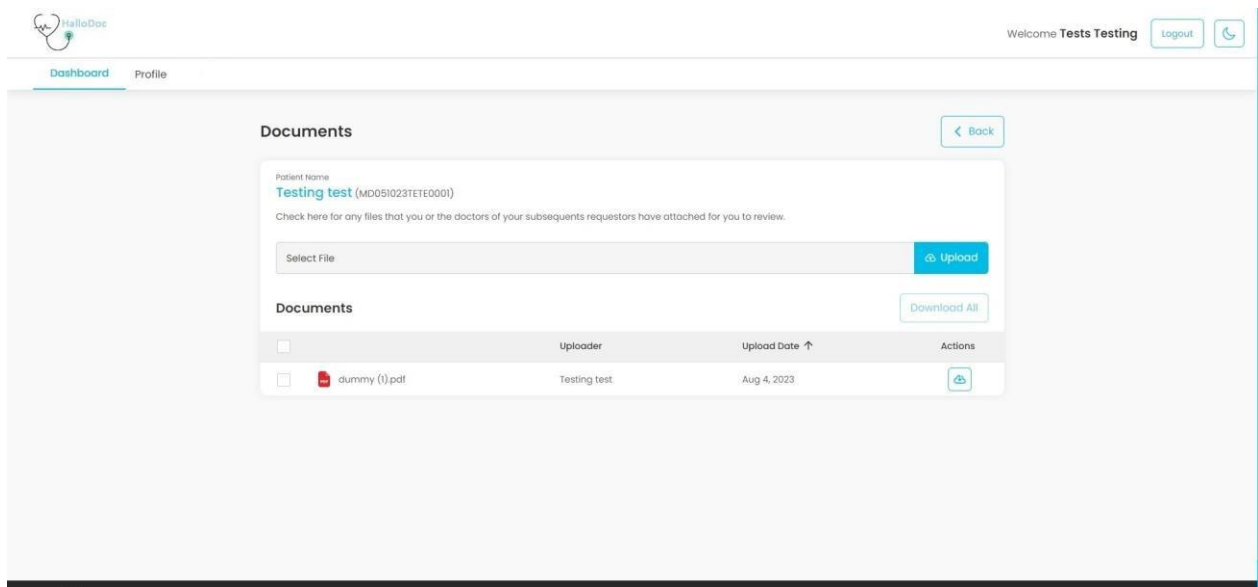
Fig 5.13 View Documents Page

Description: This is Screenshot View document page which shows all documents of particular request and shows uploader name with uploaded date. Also user can download the documents one by one or selected by checkboxs.user can upload documents also.

Fig 5.14 Patient Profile Page

Description: This is Patient Profile page user can edit the fields except email.

Fig 5.15 Patient Request Page

Description: This is Patient request option page user can request for him or her self or for others.

Fig 5.16 Patient Request for Me Page

Description: This is Screenshot of create new request for me when user clicks me button and submits this screen will show with user data filled and user can change also while submitting information for himself.

Fig 5.17 Patient Request for someone else Page

Description: This is Screenshot of submit request for some one else user can submit request by filling up the data and also can upload the document.
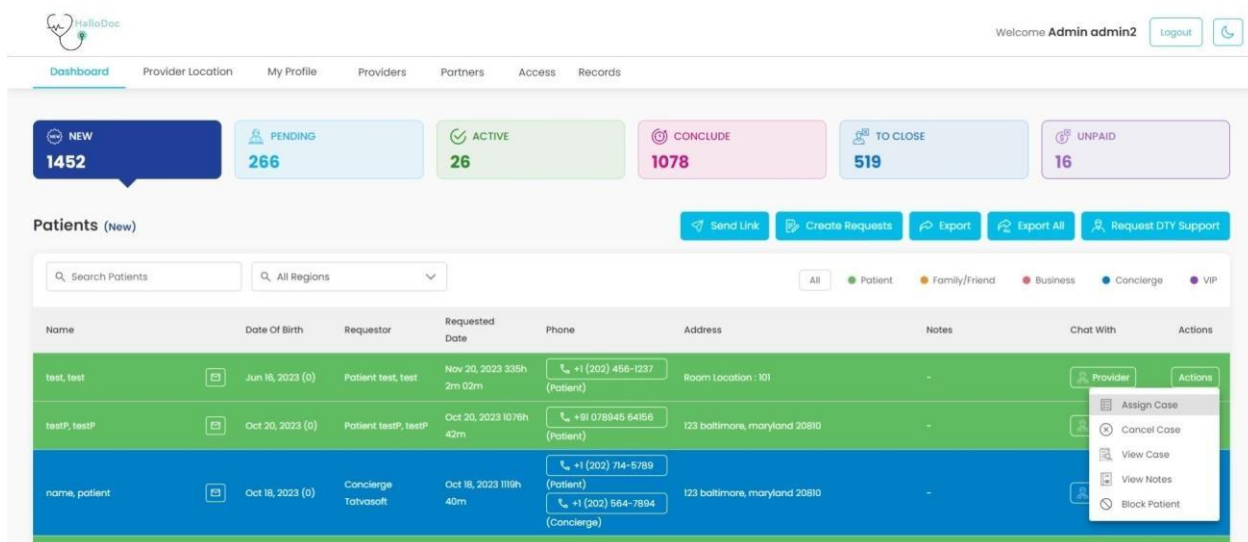
Fig 5.18 Admin Dashboard - New State Dashboard

Description: This is Screenshot of admin dashboard . admin dashboard will be shown if logged in email belongs to admin table.
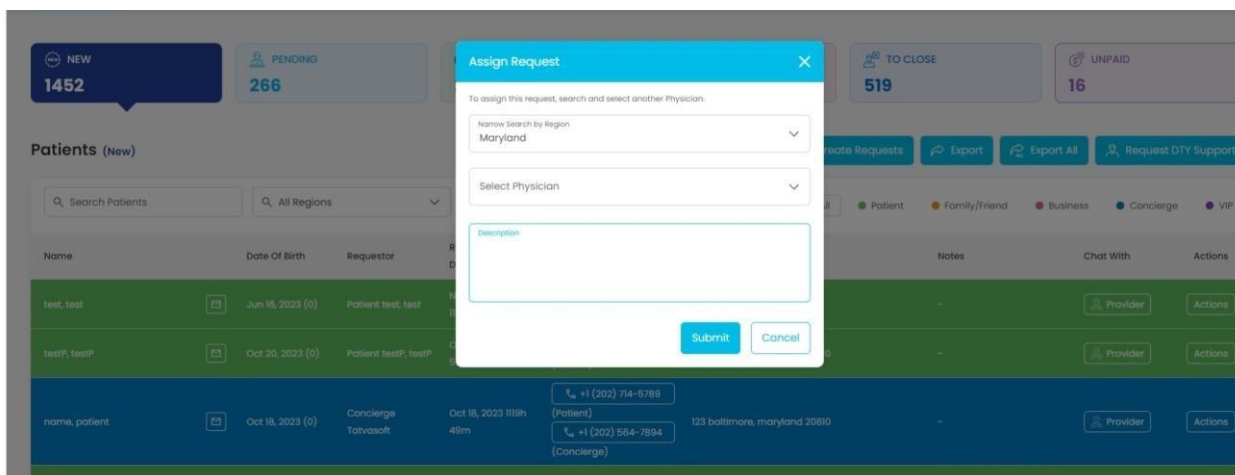
Fig 5.19 Assign Case

Description: This is Screenshot of assign case popup admin can assign case to the provider when the request is in new state.

Fig 5.20 Pending State Dashboard

Description: This is Screenshot of admin dashboard in pending state from here admin can send link for agreement to the patient . it will sent on registered email.

Fig 5.21 Active State Dashboard

Description: This is Screenshot of admin dashboard in active state and following six operations can be performed on request view case , view uploads , view notes,orders,doctors note,encounter.
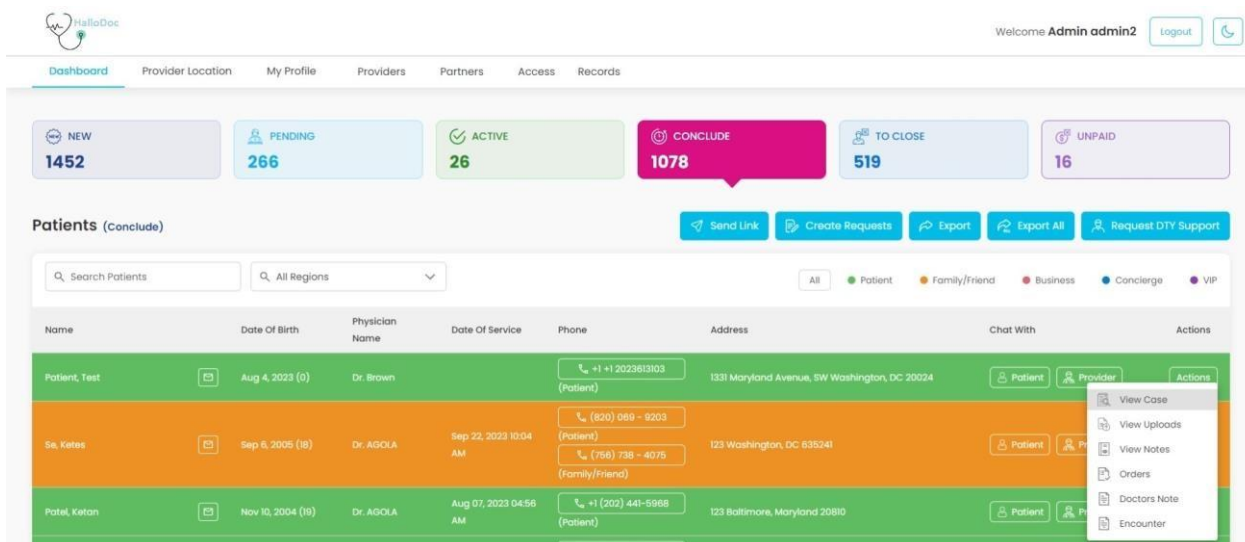
Fig 5.22 Conclude State Dashboard

Description: This is Screenshot of admin dashboard in conclude state and following six operations can be performed on request view case , view uploads , view notes,orders,doctors note,encounter.
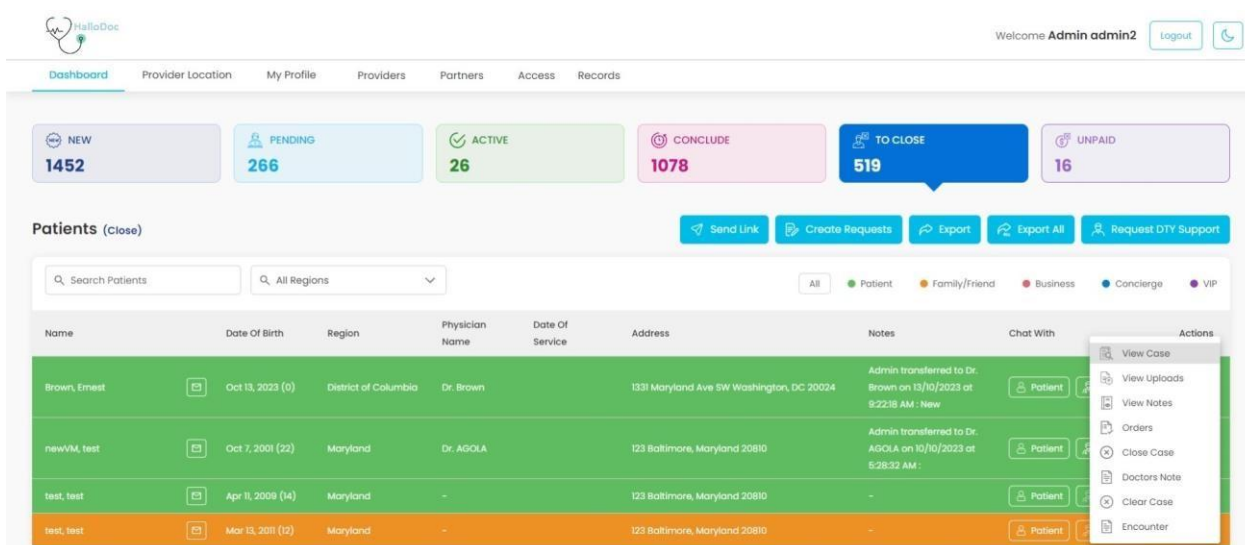

Fig 5.23 To Close State Dashboard

Description: This is Screenshot of admin dashboard in to close state in which requests are ready to close .
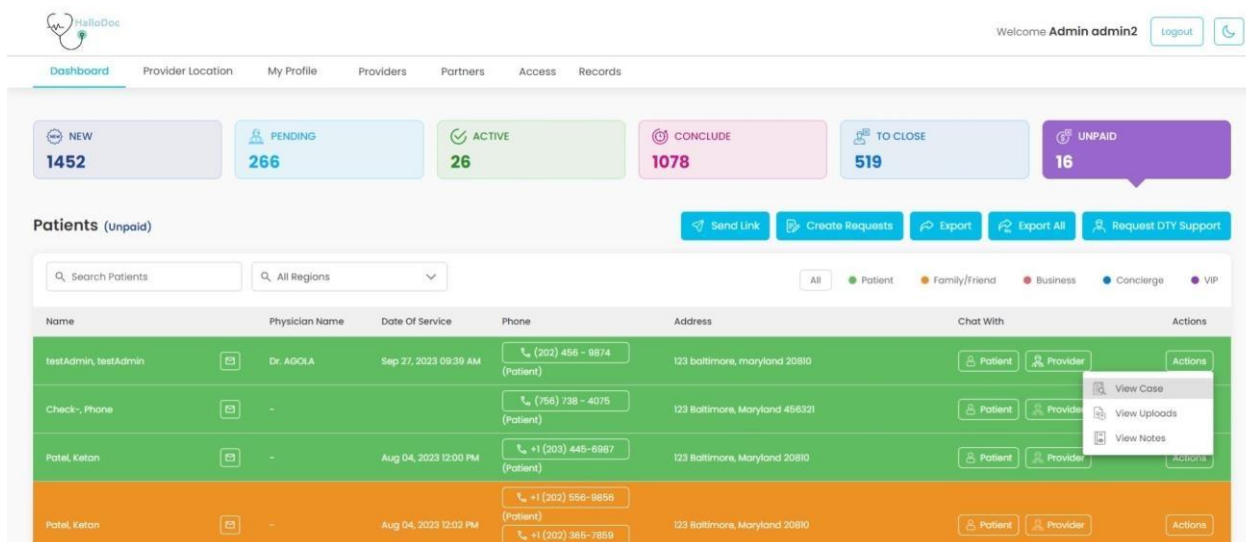
Fig 5.24 Unpaid State Dashboard

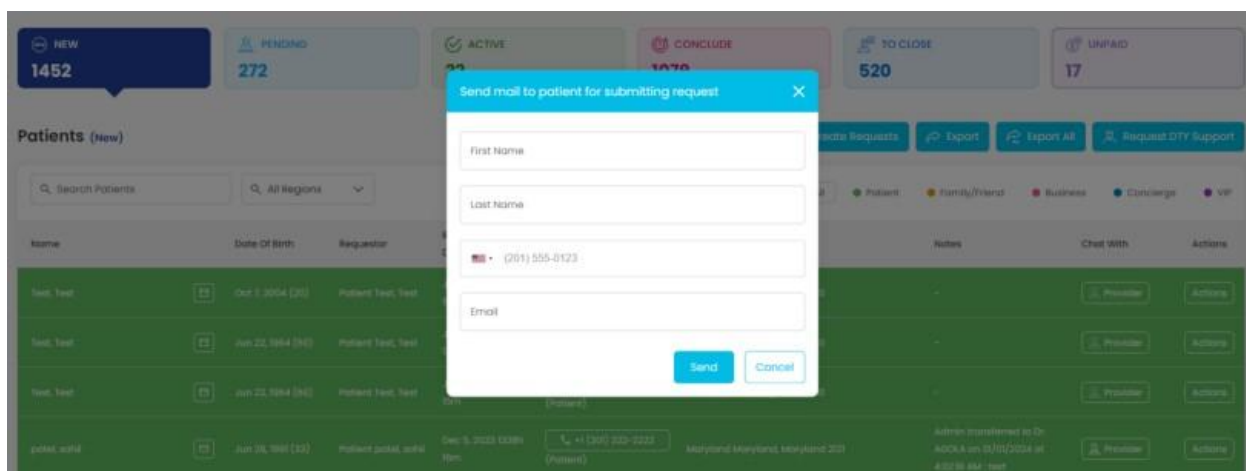**Description:** This is Screenshot of admin dashboard in unpaid state.

Fig 5.25 Send Mail

Description: This popup is opened when clicked on Send link button in dashboard, it will be used to send link of Submit Request Screen page to the patient via email and SMS.

Fig 5.26 View Case

Description: This screen will appear when admin clicks on view case button from any state.it show description of the request.

Fig 5.27 View Notes

Description: This screen will appear when admin clicks on view notes button .it shows notes like admin notes ,physician notes , transfer notes , other notes are patient cancellations notes it will appear if patient have not accept the agreement.
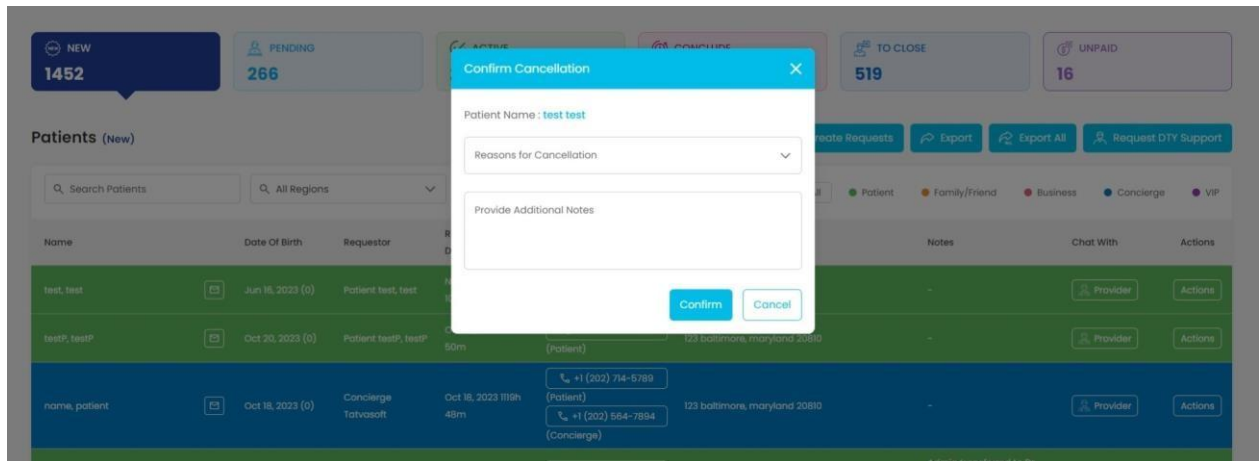
Fig 5.28 Cancel Case

Description: This screen will appear when admin clicks on cancel case button .it shows the drop down for reason for cancelling the case it also have text area for addition description. After cancellation request will move to ToClose state.
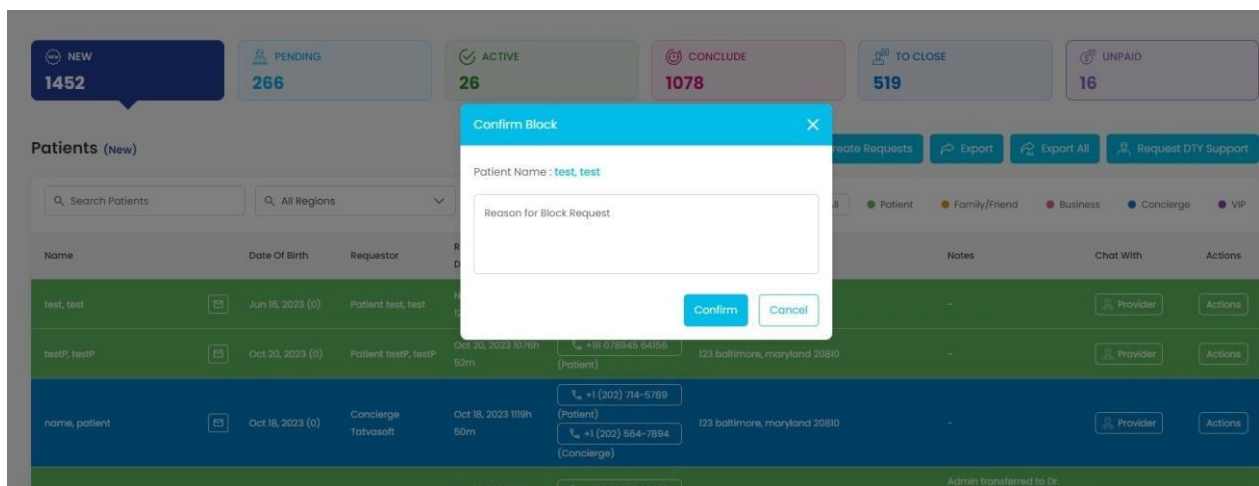
Fig 5.29 Block Case

Description: This screen will appear when admin clicks on block case button .it shows the text area for reason for blocking patient.
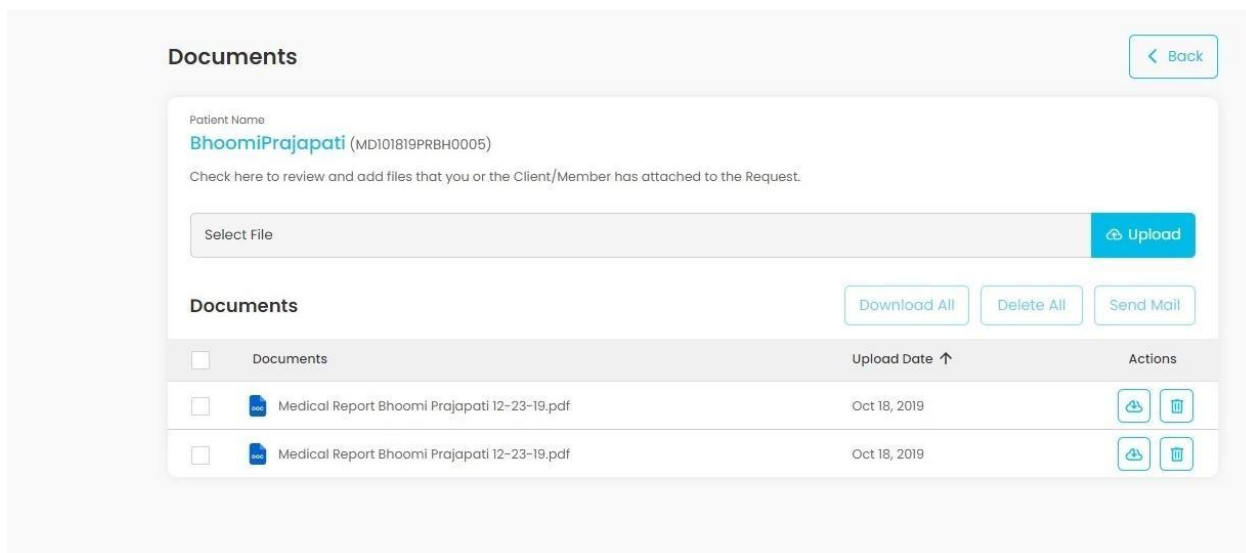
Fig 5.30 View Uploads Admin

Description: This screen will appear when admin clicks on view uploads button .it shows all the documents related to the request and admin can download , delete the document. Admin can also send documents on email of the client to which request belongs to . and admin can also upload the document.
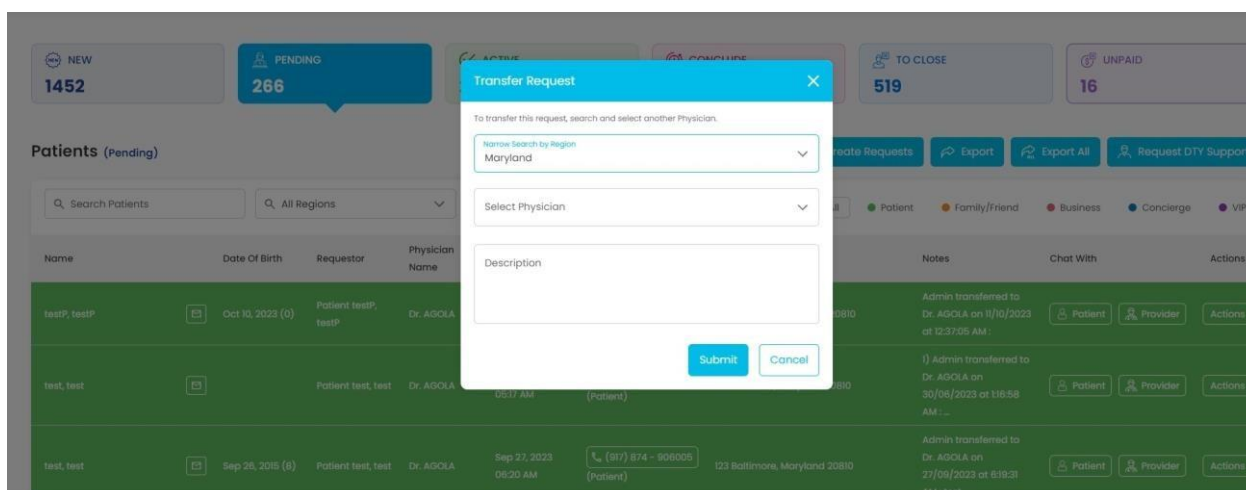
Fig 5.31 Transfer Case

Description: This screen will appear when admin clicks on transfer case button .it will transfer request to one physician to another physician.
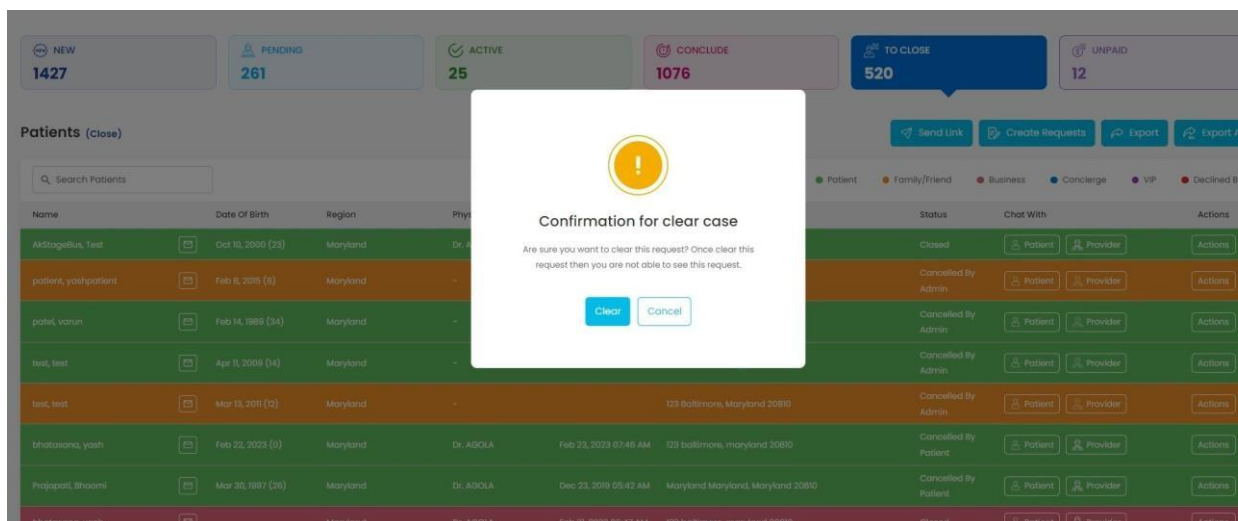
Fig 5.32 Clear Case

Description: This screen will appear when admin clicks on clear case button .it will remove the request from the dashboard .
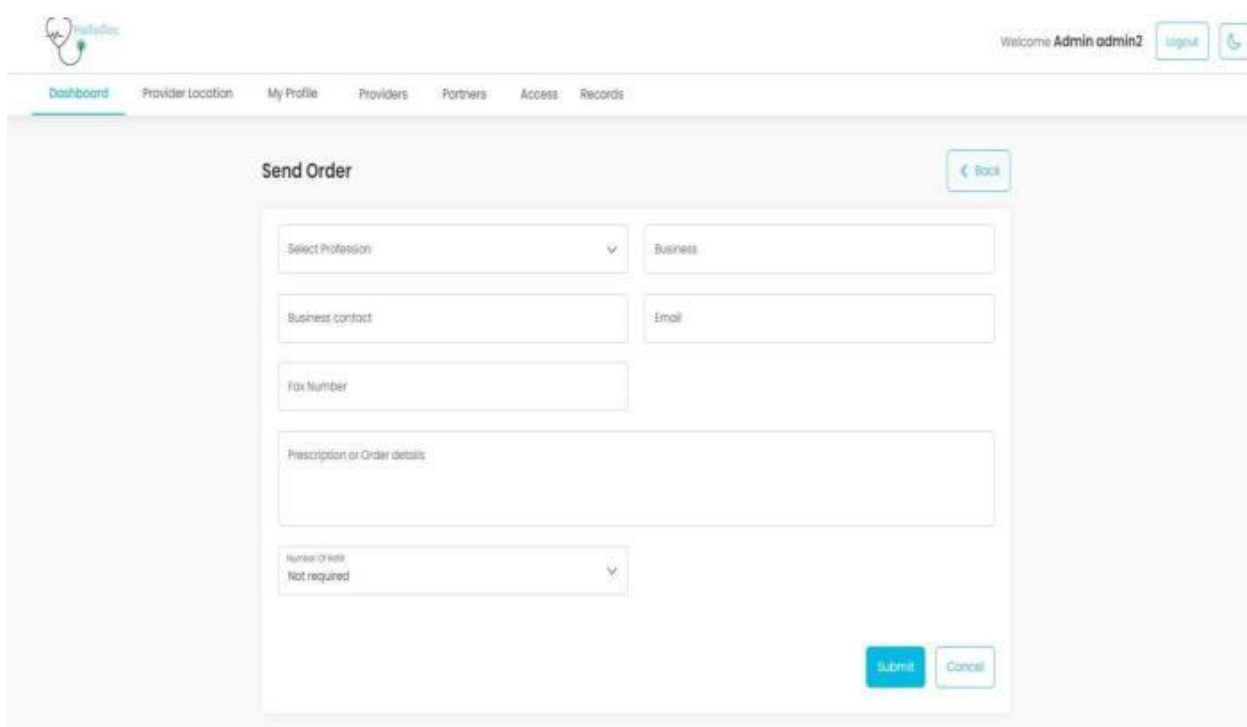
Fig 5.33 Send Orders

Description: This page will open when admin/provider will click on "Orders" link from Actions menu. From the active, conclude and close state, admin/providers can send order to a registered business.

Dashboard   My Schedule   My Profile

Encounter Form   < Back

Medical Report-Confidential

First Name
Ketes

Last Name
Se

Location
123, Washington, DC, 635241

Date Of Birth
06/09/2005

Date
06/09/2018

🇺🇸 · (202) 456-7896

Email
test@gmail.com

History Of Present Illness Or Injury

Medical History

Medications

Allergies

Temp

HR

RR

Blood Pressure(S...

Blood Pressure(D...

O2

Pain

Heent

CV

Chest

ABD

Extr

Skin

Neuro

Other

Diagnosis

Treatment Plan

Medications Dispensed

Procedures

Followup

Save Changes   Finalize   Cancel

Fig 5.34 Encounter - Admin

Description: This form will appear when admin clicks on encounter button .it will show details of the consultation filled by provider.admin can edit this also.

Fig 5.35 Profile - Admin

Description: This form will appear when admin clicks on my profile tab.

Fig 5.36 Provider Information - Admin

Description: This form will appear when admin clicks on my profile tab.

Chapter

6

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6.   IMPLEMENTATION

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Implementation Platform   Module Specification

Technological University   60   LJIET, Ahmedabad

IMPLEMENTATION

Implementation Platform

- Visual Studio

  Visual Studio is a comprehensive integrated development environment (IDE) developed by Microsoft. It offers advanced features for code editing, debugging, project management, version control integration, testing, and performance profiling. Visual Studio is available in different editions, including Community, Professional, and Enterprise, catering to various developer needs. It supports development for multiple platforms and seamlessly integrates with other Microsoft development tools and services, facilitating end-to-end application development and deployment workflows.

- Meet IntelliSense.

  Go beyond syntax highlighting and auto complete with IntelliSense, which provides smart completions based on variable types, function definitions, and imported modules.

- Print statement debugging is a thing of the past

  Debug code right from the editor. Launch or attach to your running apps and debug with break points, call stacks, and an interactive console.

- Git commands built-in

  Working with Git and other SCM providers has never been easier. Review different, stage files, and make commits right from the editor. Push and pull from any hosted SCM service.

- Deploy with confidence and ease

  With Microsoft Azure you can deploy and host your React, Angular, Node, Python (and more!) sites, store and query relational and document based data, and scale with server less computing, all with ease, all from within VS.

Module Specification

This website is going to be used by mainly 3 kinds of user that deals with this application:

1. Admin

2. Provider

3. Patient (User)

1. Admin:

- Role: The admin user has overarching control and management responsibilities within the healthcare system.

- Responsibilities:

- Manage user accounts and permissions, including creating, modifying, and deleting accounts as needed.

- Configure system settings and preferences, such as appointment scheduling rules and billing parameters.

- Monitor system performance and resolve technical issues or security concerns.

- Generate reports and analytics to track key performance indicators and assess system usage.

- Ensure compliance with regulatory requirements and standards for healthcare data privacy and security.

- Collaborate with providers and patients to gather feedback and implement system improvements.

2. Provider:

- Role: The provider user includes healthcare professionals who deliver medical services within the system.

- Responsibilities:

- Conduct virtual consultations with patients, including diagnosing medical conditions, prescribing medications, and developing treatment plans.

- Review patient medical records and history to provide personalized care and recommendations.

- Document patient encounters accurately and comprehensively, ensuring all relevant information is captured for continuity of care.

- Collaborate with other healthcare providers and specialists as needed for multidisciplinary care.

- Communicate with patients effectively and compassionately, addressing their concerns and providing education on health management.
- Stay updated on medical best practices and guidelines to deliver high-quality care and improve patient outcomes.

3. Patient:

- Role: The patient user represents individuals seeking healthcare services and managing their health within the system.

- Responsibilities:

- Schedule appointments with healthcare providers, including selecting preferred dates and times for consultations.

- Provide accurate and complete medical history information during consultations to facilitate diagnosis and treatment.

- Participate actively in virtual consultations, asking questions, expressing concerns, and following provider recommendations.

- Adhere to prescribed treatment plans, including taking medications as directed and attending follow-up appointments.

- Communicate openly and honestly with healthcare providers about symptoms, changes in health status, or treatment adherence issues.
- Access educational resources and tools within the system to learn about health conditions, preventive care measures, and lifestyle management strategies.

Chapter

7

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7. TESTING

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Testing Plan **Testing Strategy** **Testing Methods** **Testing Cases**

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TESTING

Testing Plan

A test plan is the cornerstone of a successful testing implementation. The testing plan represents the overall approach to the test. In many ways, the test plan serves as a summary of the test activities that will be performed. It shows how the tests will be organized, and outlines all of the tester's needs that must be met in order to properly carry out the test.

The goal of test planning is to establish the list of tasks that, if performed, will identify all of the requirements that have not been met in the software. There are many standards that can be used for developing test plans. Early in the deployment planning phase, the testing effort, and identifies the methodology that your team will use to conduct tests. It also identifies the hardware, software, and tools required for testing and the features and functions that will be tested. A well-rounded test plan notes any risk factors that jeopardize testing and includes a

testing schedule. So, I can say that Test Planning details the activities, dependencies and effort required to conducting the system test.

Testing Strategy

The test strategy is a formal description of how a software product will be tested. A test strategy is developed for all levels of testing, as required. The test team analyzes the requirements, writes the test strategy and reviews the plan with the project team. The test plan may include test cases, conditions, and the test environment, a list of related tasks, pass/fail criteria and risk assessment.

The purpose of the testing strategy is to define the overall context for the entire testing process. The process is different depending on the specific characteristics of your solution. In many respects, this is the most important part of the testing process, since all future testing decisions will be made within the context of the strategy. As a programmer, we have to just do a unit testing which is a part of White Box testing. Other type of the testing in each phase of the software is done by testing department. Unit testing begins at the vortex of the spiral and concentrates on each unit (i.e. component) of the software as implemented in source code.

Testing Methods

Unit Testing

Unit testing involves the testing of each unit or an individual component of the software application. It is the first level of functional testing. The aim behind unit testing is to validate unit components with its performance.

A unit is a single testable part of a software system and tested during the development phase of the application software.

The purpose of unit testing is to test the correctness of isolated code. A unit component is an individual function or code of the application. White box testing approach used for unit testing and usually done by the developers.

Whenever the application is ready and given to the Test engineer, he/she will start checking every component of the module or module of the application

independently or one by one, and this process is known as Unit testing or components testing.

Testing Cases

Testing: - Software testing is a critical element of software quality assurance and represents the ultimate review or specification, design and code generation.

Table 7.1 Test Cases 01 - Registration

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
1	Click Register Button	Blank Fields	Give the message of mandatory field	Give Validation message to enter mandatory field	PASS
2	All Data would be entered	Enter All Data Name : ABC, email : ABC@gmail.com , password : 123456	Give the message of Register Successfully	Register Successfully	PASS

Table 7.2 Test Cases 02 - Login

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
1	Click Login Button	Blank Fields	Give the message of mandatory field	Give Validation message to enter mandatory field	PASS

| 2 | All Data would be entered | Enter All Data email:ABC@gmail.com, password : 123456 | Give the message of Login Successfully | Login Successfully | PASS |

Table 7.3 Test Case 03 – Request Form

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
1	Add Address	Blank Fields	Give the message of mandatory field	Give Validation message to enter mandatory field	PASS
2	All Data would be entered	Enter All Data email:ABC@gmail.com, Name : Delvadiya Shyam, Address : "Shyam" , Krishna Park, Jamjodhpur zip code: 360530 , state : Gujarat , country : India , mobile no : 9879879870	Give the message of Add Successfully	Add Successfully	PASS

Table 7.4 Test Cases 04 – PopUp Form

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)

1	Pay	Blank Fields	Give the message of mandatory field	Give Validation message to enter mandatory field	PASS
2	All Data would be entered	Enter All Data	Give the message of Success	*Success*	PASS

Chapter

8

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8.   CONCLUSION AND DISCUSSION

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Overall Analysis of Internship   Problem Encountered and possible solutions Summary of Internship Limitation and future Work

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CONCLUSION AND DISCUSSION

Overall Analysis of Internship

1. Since the very first day of internship, I learned a lot of new things from the respected industry guides and fellow interns.

2. First of all, started from basics of C#.

3. Then learned Scrum methodology.

4. Overview of MVC – Entitity Frame Work is given.

5. SQL is covered.

6. HTML and CSS overview is also given.

7. Project work is assigned.

8. Project work is completed and report is prepared.

Problem Encountered and Possible Solutions

Problem Encountered:

- The website interface might not be intuitive or userfriendly.

- Users may require separate installations for body measurement functionalities.

Possible Solutions:

- Revamp the website interface to prioritize user-friendliness and responsiveness.

- Integrate body measurement features seamlessly within the platform, eliminating the need for separate installations.

Summary of Internship

Table 8.1 Summary of Internship/Project

Project Title	HalloDoc
Aim	Our main Aim is to remove the barrier that is generated due to lack of consumer trust as they are not physically touching or can watch the product but by showing it on avatar they can at least look and decide that how it will suit on them as per body measurement. When you understand who your ideal customer is, what they look like, their habits, interests, challenges, aspirations, in fact everything about them, you'll be much more effective in marketing to them.
Developed At	Tatvasoft
Project Category	Web site

Tools	IDE	Visual Studio
	Languages /Framewor ks	PostgreSQL, Bootstrap, CSHTML,CSS, JS,C#,ASP DOTNET
	Database	PostgreSQL
Duration	3 Months (January 2024 to April 2024)	

Limitation

1. Limited physical examination capabilities.
2. Potential challenges with connectivity in remote areas.
3. Dependence on user's technological proficiency for effective use.

Future Enhancement

1. Integration of AI for enhanced diagnostics.
2. Expansion of services to include specialist consultations.
3. Implementation of wearable technology for remote patient monitoring.

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