INTERNSHIP ON .NET

AN INTERNSHIP REPORT

Submitted by

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In partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

in

Computer Engineering

Government Engineering College, Rajkot





Gujarat Technological University, Ahmedabad
April, 2024





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CERTIFICATE

This is to certify that the internship report submitted along with the internship entitled **Internship On .Net** has been carried out by **Vijay Premajibhai Aniyaliya** (200200107072) under my guidance in partial fulfilment for the degree of Bachelor of Engineering in Computer Engineering, 8th Semester of Gujarat Technological University, Ahmedabad during the academic year 2023-24.

Prof. Sanjay .D.B Internal Guide Prof. S. M. Shah Head of the Department



Date: 16th Apr 2024

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Vijaykumar Premajibhai Aniyaliya is selected from GEC Rajkot college for internship in accordance with the college's policy.

Details of the project is as under

Project technology: .NET Project Title: HalloDoc

Start Date: 08-Jan-24

End Date: 16-Apr-24

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DECLARATION

I hereby declare that the Internship report submitted along with the Internship entitled **Internship On .Net** submitted in partial fulfilment 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 student's reports or taken from any other source, without providing due reference.

Name of the Student

Sign of Student

1. Vijay Aniyaliya

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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, **Prof.S.D.BHANDERI** sir, 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.

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i

VIJAY PREMAJIBHAI ANIYALIYA 200200107072

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.

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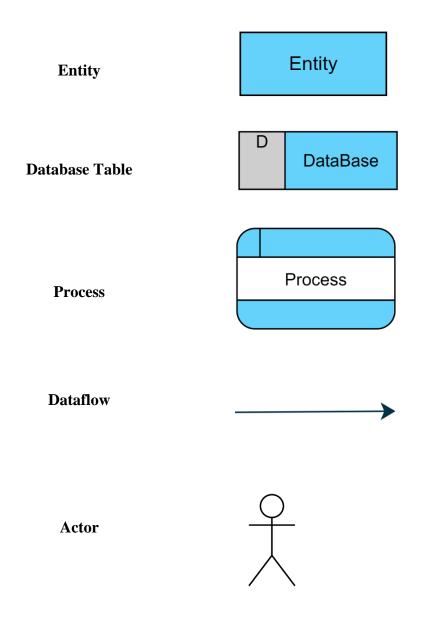
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LIST OF SYMBOLS



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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1.0 OVERVIEW OF THE COMPANY



1.1 ABOUT COMPANY

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.

1.2 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

2.0 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.

2.1 ALL DEPARTMENTS

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

2.2 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
Gujarat Technological University

2 Government Engineering College, Rajkot

before it reaches the market.

2.3 SEQUENCE OF OPERATORS

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

2.4 PRODUCT STAGES

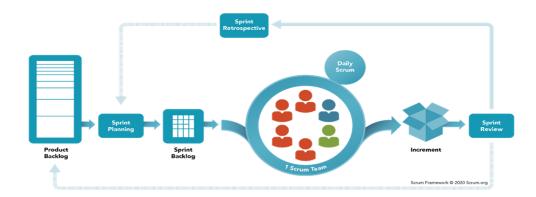


Fig 2.1 Production Stage

3.0 INTRODUCTION TO INTERNSHIP

3.1 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 vi	rtual consultations and	
	diagnostic services, elim	inating the need for	
	physical visits. Like effective	ctive marketing relies on	
	understanding ideal custo	omers, HalloDoc tailors	
	healthcare solutions by c	onsidering individual	
	needs and preferences. W	Vith a user-friendly	
	interface, we empower p	atients 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)		

3.2 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.

3.3 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.

3.4 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.

3.5 TECHNOLOGY AND LITERATURE REVIEW

Table 3.2 Technologies Used to Develop Project

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

3.6 PLANNING

3.6.1 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.

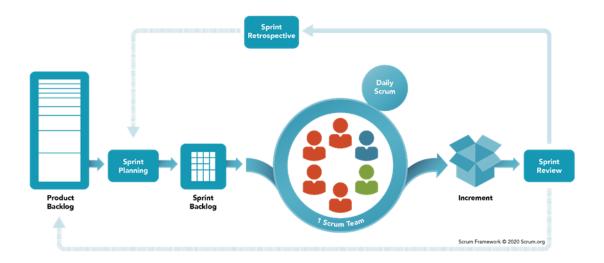


Fig 3.1 Scrum Methodology

("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.

3.6.2 Roles and Responsibilities

3.6.2.1 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.

3.6.2.2 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.

3.6.2.3 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.

3.6.3 Group Dependencies

3.6.3.1 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.

- 3.6.3.2 .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.
- 3.6.3.3 DBA Team is responsible for entire database related work. It provides database service to Java as well as .Net team.

3.7 SCHEDULING

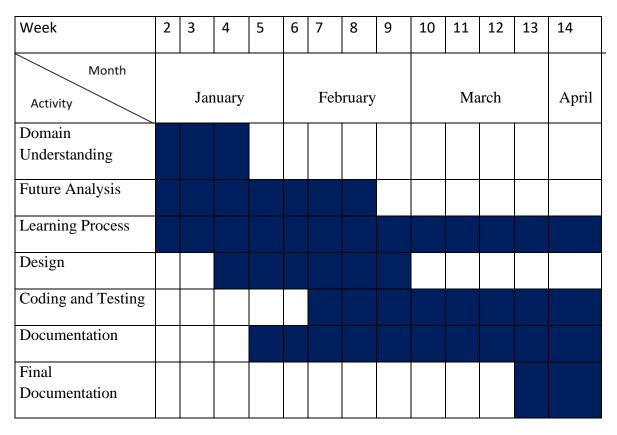


Fig 3.2 Gantt Chart

(Time scheduling from week 1)

4.0 SYSTEM ANALYSIS

4.1 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.

4.2 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

4.3 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

4.4 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

4.5 USE CASE DIAGRAM

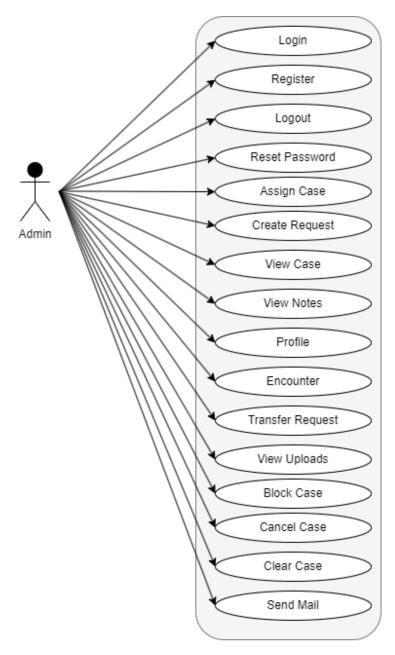


Fig 4.1 Admin - Use case diagram

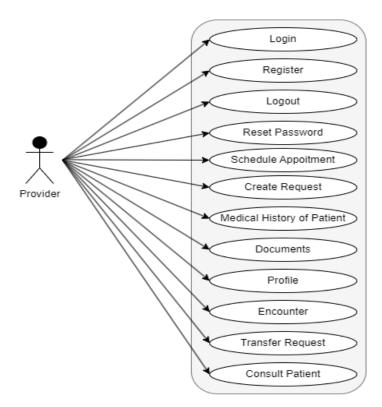


Fig 4.2 Provider - Use case diagram

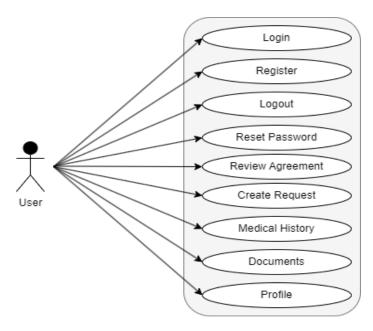


Fig 4.3 User - Use case diagram

4.6 DATA FLOW DIAGRAM

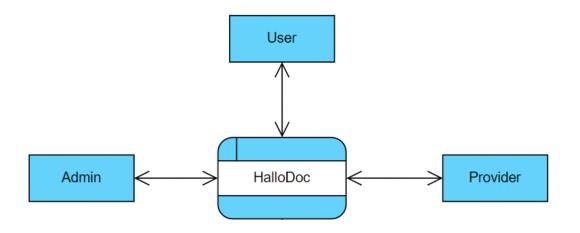


Fig. 4.4 Data Flow Diagram (Level 0)

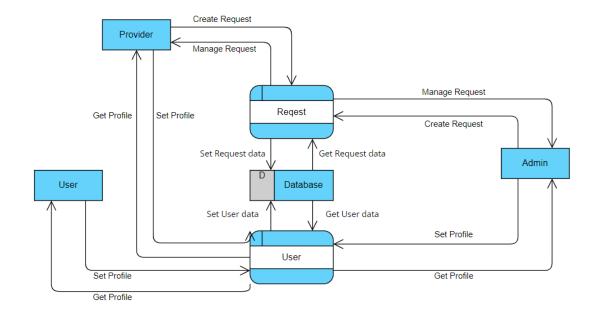


Fig 4.5 Data Flow Diagram (Level 1 Admin)

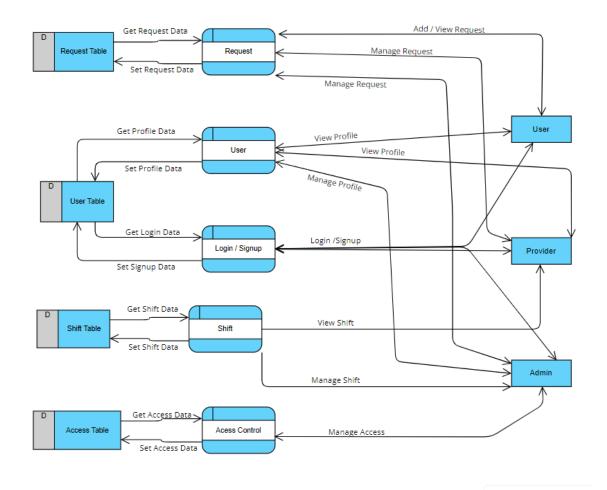


Fig 4.6 Data Flow Diagram (Level 1 Client/User)

4.7 LIST OF MODULES

- 4.7.1 System consists mainly two main modules:
 - i. Admin
 - ii. Provider
 - iii. Patient (User)

4.8 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.

4.9 SELECTION OF HARDWARE AND SOFTWARE

4.9.1 Hardware

4.9.1.1	Development Machine Requirement (Average performance)
4.9.1.1.1	8 GB RAM
4.9.1.1.2	50 GB HDD
4.9.1.1.3	Internet
4.9.1.2	Client Machine Requirement
4.9.1.2.1	4 GB RAM
4.9.1.2.2	5 GB of HDD space
4.9.1.2.3	Network related tools
4.9.1.3	Host Machine Requirement
4.9.1.3.1	32 GB RAM
4.9.1.3.2	500 GB of HDD space
4.9.1.3.3	Network related tools

4.9.2 Software

4.9.2.1 Development Machine Requirements

4.9.2.1.1 Visual Studio

4.9.2.1.2 PostgreSQL

4.9.2.1.3 PgAdmin

4.9.2.1.4 Browser

4.9.2.2 Client Machine Requirements

4.9.2.2.1 Browser

4.9.2.3 Host Machine Requirements (Linux)

4.9.2.3.1 Serve

5.0 SYSTEM DESIGN

5.1 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 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.

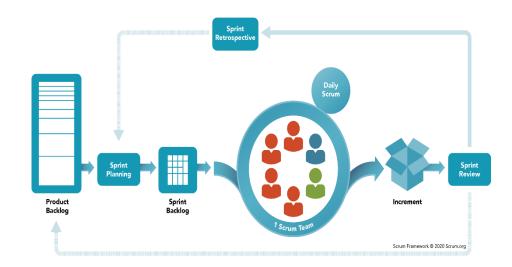


Fig 5.1 Scrum Methodology

5.2 Database Design

This are important tables that we have used to create database.

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	
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 5.5 AspNetUsers

Table Name	AspNetUser	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 5.11 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 5.15 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 5.20 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,4-Reserving,5-MDEnRoute,6-MDOnSite,7-FollowUp,8-Closed,9-Locked,10-Declined,11-Consult,12-Clear,13-CancelledByProvider,14-CCUploadedByClient,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 5.26 RequestStatusLog

Table Name	RequestStat	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 5.32 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 5.35 User

Table Name	User	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		

5.3 INTERFACE DESIGN

5.3.1 Patient Module

- Patient can create their account and book an appointment for their problem.
- Patient can view their history and documents.
- Patient can update their profile.
- Patient can accept or decline the agreement if he/she don't want to continue.

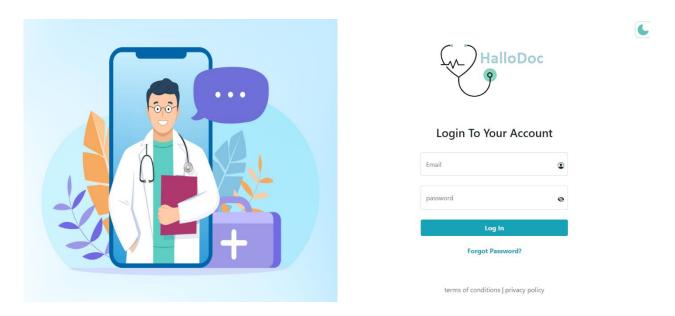


Fig 5.4 Login Page

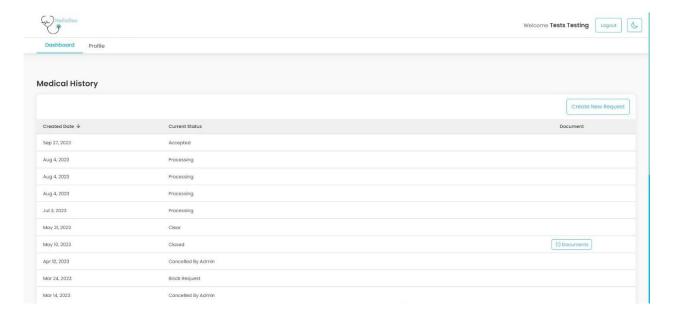


Fig 5.12 Patient Dashboard Page

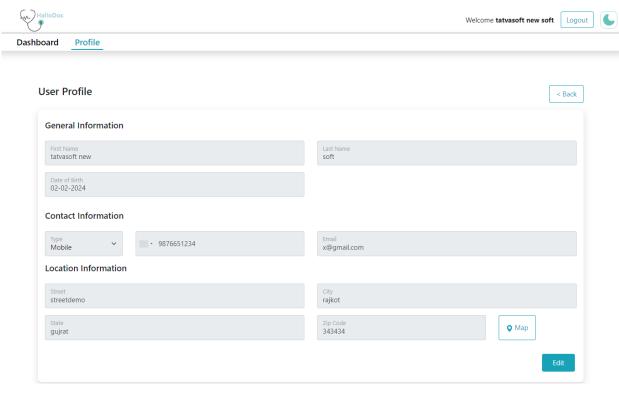


Fig 5.14 Patient Profile Page

5.3.1 Admin Site

- Admin can View and Delete patient's appointments, their case history and view documents.
- Admin can send agreement to the patient.
- Admin can assign physician to the patient according to their area.
- Admin can send order for any requirement like medicines, oximeter or any medical thing etc.
- Admin can create physician account also.
- Admin can assign roles to the patient and physician and according to that they have access of limited area.
- Admin can create shift for provider on basis of which physician is available at that time.
- Admin can also block the patient & export patient's records and do analysis on it.
- Admin can send the registration link to any new patient.

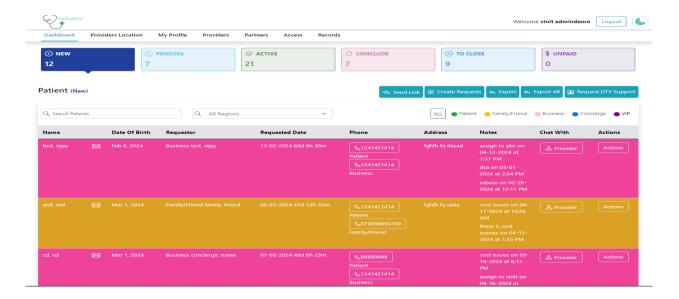


Fig 5.18 Admin Dashboard - New State Dashboard

In admin dashboard provides a centralized interface for the admin to manage and oversee incoming requests. It offers quick access to different categories of requests based on their status, allowing the admin to efficiently review, approve, and take action as needed.

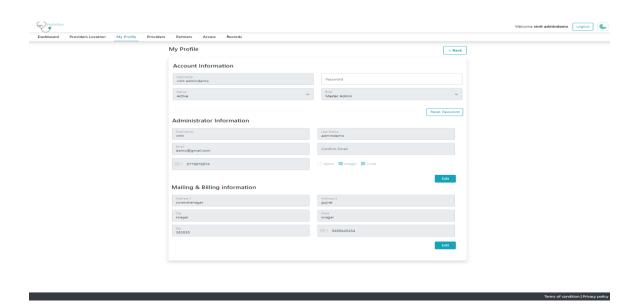


Fig 5.35 Profile – Admin



Fig 5.3.3 Provider Location

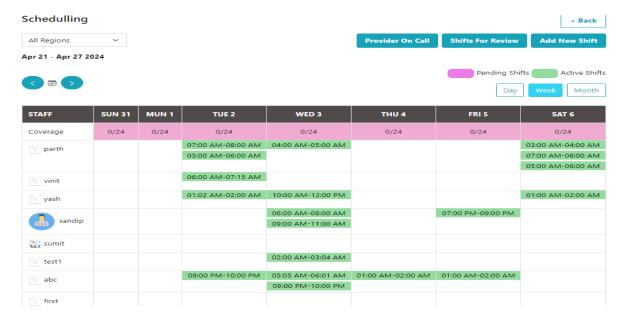


Fig 5.3.4 Scheduling

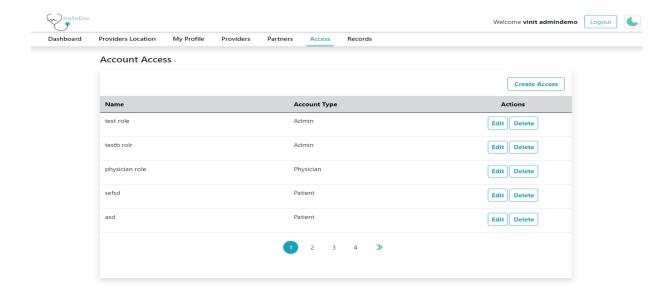


Fig 5.3.5 Access Roles Page

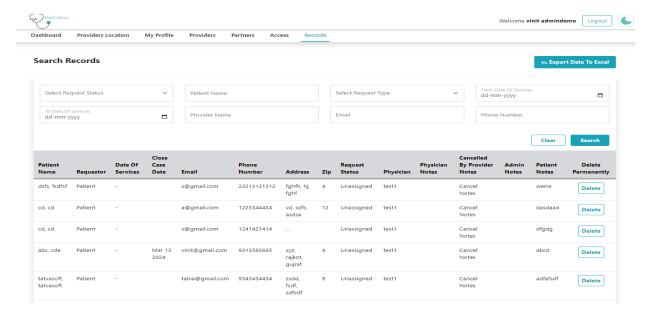


Fig 5.3.6 Records Page

5.3.3 Provider Module

- Physician can login to their account and see if there are any shifts for the day or not.
- Physician can give Home Service also.
- If physician is not available, he/she can transfer the case back to the admin.

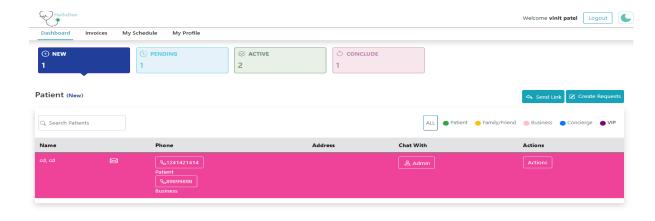


Fig 5.3.10 Provider Dashboard

Project ID: 415834 Implementation

6.0 IMPLEMENTATION

6.1 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.

6.2 MODULE SPECIFICATION

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

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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.

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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.

7.0 TESTING

7.1 TESTING PLAN / STRATEGY

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 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.

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.

7.2 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	Test Data	Expected	Actual Result	Status
	Steps		Result		(Pass/Fail)
1	Click	Blank Fields	Give the	Give Validation	PASS
	Login		message of	message to enter	
	Button		mandatory	mandatory field	
			field		
	A 11 D	T. All D.	G: .1		DAGG
2	All Data	Enter All Data	Give the	Login	PASS
	would	email: ABC@gmail.com,	message of	Successfully	
	be	password : 123456	Login		
	entered		Successfully		

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Table 7.3 Test Case 03 - Request Form

Step	Test	Test Data	Expected	Actual Result	Status
	Steps		Result		(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	Test Data	ExpectedResult	Actual Result	Status
	Steps				(Pass/Fail)
1	Pay	Blank Fields	Give the message ofmandatoryfield	Give Validation message to enter mandatory field	PASS
2	All Data would be entered	Enter All Data	Give the message of Success	Success	PASS

8.0 CONCLUSION AND DISCUSSION

8.1 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. SOL is covered.
- 6. HTML and CSS overview is also given.
- 7. Project work is assigned.
- 8. Project work is completed and report is prepared.

8.2 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.

8.3 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 toucl	hing or can watch the product		
	but by showing it o	n avatar they can at least look		
	and decide that ho	w it will suit on them as per		
	body measurement. When you understand w			
	your ideal customer is, what they look like, the habits, interests, challenges, aspirations, in			
	everything about	them, you'll be much more		
	effective in marketing	ng to them.		
Developed At	Tatvasoft			
Project Category	Web site			
Tools	IDE	Visual Studio		
	Languages	PostgreSQL,		
	/Frameworks	Bootstrap,		
		CSHTML,CSS,		
		JS,C#,ASP		
		DOTNET		
	Database	PostgreSQL		
Duration	3 Months (Januar	3 Months (January 2024 to April 2024)		

8.4 LIMITATION

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

8.5 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.

Project ID: 415834 Reference

REFERENCE

Websites

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- 2. https://learn.microsoft.com/en-us/aspnet/mvc/
- 3. https://getbootstrap.com/docs/5.0/getting-started/introduction/
- 4. https://stackoverflow.com/
- 5. https://www.w3schools.com/
- 6. https://www.c-sharpcorner.com/