



MEDCONNECT

SMART MEDICAL CONSULTING PLATFORM



Medical Consulting Product Analysis Report
(Operational Framework Analysis and Enhancement Strategies)

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EXECUTIVE SUMMARY

Through the seamless connection of healthcare professionals worldwide for mutual consultations, second opinions, and knowledge sharing regarding various medical diagnoses and treatments for diseases, MedConnect, our ground-breaking medical consulting platform, seeks to revolutionize the healthcare industry. This document examines MedConnect's operational framework, highlighting obstacles and suggesting improvement tactics to raise the project's general efficacy, usability, and efficiency and guarantee that the results are entirely appropriate.

1.INTRODUCTION

1.1 PURPOSE

The document provides a quick overview of MedConnect, a revolutionary medical consulting platform. This document must have a general description, purpose, goal/objective, and usage. This document will be used by the development team and software. The goal of this software is to develop a simple, easy-to-use system that aids in disease diagnosis by facilitating interaction and consultation among various stakeholders/beneficiaries.

1.2 INTENDED AUDIENCE AND READING SUGGESTIONS

This document examines the medical consulting platform's potential operating foundation. It will be valuable to project stakeholders as well as anyone interested in learning more about the project. To enhance reader comprehension, the document has been created to be as self-explanatory as possible. The rest of this document provides the platform's overall product description, possible external interfaces, assumptions (if necessary), operational process analysis, recognized problems and inefficiencies, and provided possible solutions. It is recommended that you read this document in chronological order.

1.3 OBJECTIVE

MedConnect's goals are to ease the interchange of professional medical advice among physicians, healthcare practitioners, and medical experts by providing an online platform for seamless interactions and therefore linking numerous medical experts from various specializations throughout the world.



Fig. Procedural Workflow

1.4 PROBLEM DEFINITION AND SCOPE

After carefully considering all of the created consultation platforms, it was discovered that, while they provide fundamental features such as one-on-one consulting among selected healthcare executives, there is a lack of consistency among such platforms among healthcare executives. Furthermore, there are very few medical representatives available online for such cases, and there is a general lack of understanding among them.

As a result, the scope of MedConnect should be broad, i.e. offering a platform where maximum potential statistics of healthcare representatives are available, as well as a medium to develop plenty of medical awareness and information among stakeholders or the target audience.

1.5 POSSIBLE ASSUMPTIONS

- During the course of using the project, users must have constant access to a working internet connection.
- Users are familiar with the basic functions of a web application.
- Users can make payments online if required and have access to at least one of the many online payment methods are available.

We rely on:

- The correct operation of the program and database.
- Designed with a strong framework.
- Timely interaction from the admin's side to ensure the application runs smoothly and functions properly at all times.

1.6 TARGET AUDIENCE

Our target audience or stakeholders include the following:

1. Physicians: a doctor of medicine who can consult with or interact with other doctors on a specific medical drug.
2. Health practitioners: According to the demands of the people they serve, health professionals' study, diagnose, treat, and prevent human illness, injury, and other physical and mental disabilities.
3. Medical experts: a person who is legally practicing in a branch of medicine, audiology, pathology, radiography, radiology, dentistry, pharmacology, occupational therapy, physiotherapy, rehabilitation, ergonomics, or a related subject is referred to as a medical expert. This covers a number of doctors.
4. Admin: responsible for providing logistical support to the entire organization or platform.

2. WORK BREAKDOWN STRUCTURE

In project management, a work-break structure is a deliverable-oriented split of a project into smaller components.

A work breakdown structure is an important project management component that divides the work of the team into manageable chunks.

The diagram below demonstrates the project's possible work breakdown structure, MedConnect:

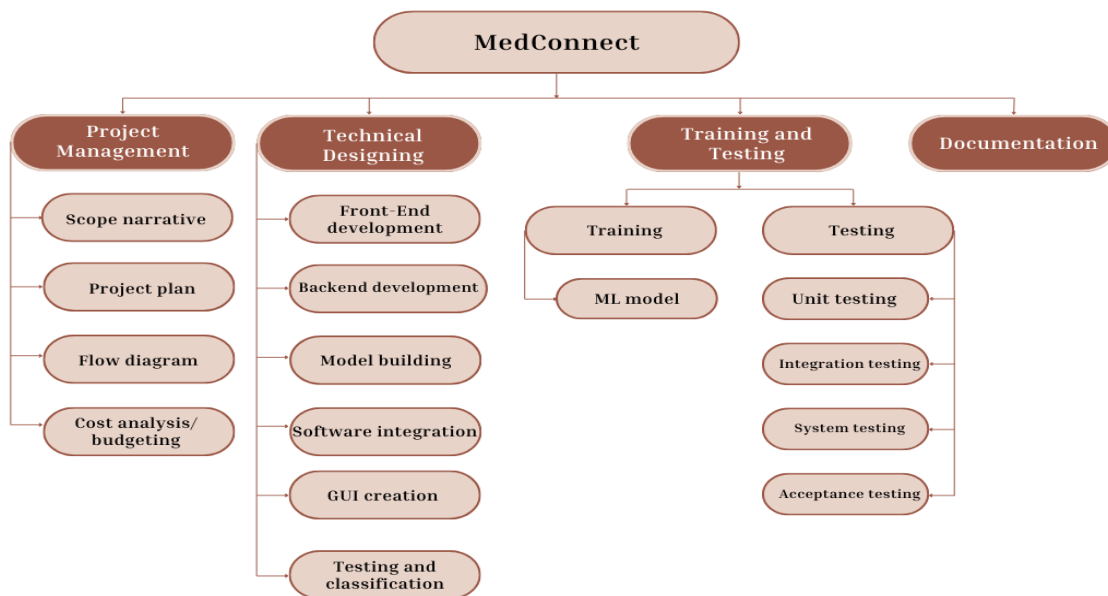


Fig. Work Breakdown Structure

3. OPERATIONAL PROCESS ANALYSIS

Process analysis is defined as the methodical evaluation and deconstruction of a process in order to gain a better knowledge of it, identify its flaws, and find solutions to improve it.

1. User Registration:

- Determine and simplify the user registration process to guarantee a smooth onboarding experience.
- Use multi-factor authentication to increase security.

- Maintain an accurate record of user session data.
2. Expert Availability:
 - Create an algorithm to optimize expert availability while taking into account time zones, specialties, and workload.
 - Create a real-time status indicator for experts to indicate their availability.
 3. Consultations on Scheduling:
 - Incorporate an intelligent scheduling mechanism to match user preferences with expert availability.
 - Send planned consultation reminders and confirmations automatically.
 4. Secure Communication Channels:
 - Use end-to-end encryption to ensure secure communication.
 - Include HIPAA-compliant video conferencing software: HIPAA compliance is a living culture that healthcare organizations must instill in their organizations in order to ensure the privacy, security, and integrity of protected health information.
 5. Data Privacy Measures:
 - Improve data encryption technologies to protect user information.
 - Update and evaluate privacy policies on a regular basis to ensure compliance with industry standards.



Fig. Operational Process Analysis

4. RECOGNISED DIFFICULTIES AND INEFFICIENCIES

Following are the identified challenges and inefficiencies:

1. User Engagement:
 - During registration and onboarding, users may encounter obstacles.
 - Inconsistent availability of experts may cause dissatisfaction.
2. Security Concerns:
 - Potential flaws or vulnerabilities in data privacy safeguards.
 - Failure to comply with industry regulations may result in legal consequences.
3. Gaps in Efficiency:
 - Manual scheduling methods may cause delays.
 - The lack of real-time communication capabilities may impede productive consultations.

5. PROPOSED ENHANCEMENT STRATEGIES

Following are some proposed enhancements strategies that can be implemented to improve the overall efficiency of the project and shall be followed in the form of a cycle to ensure improvements at every phase of project deployment:

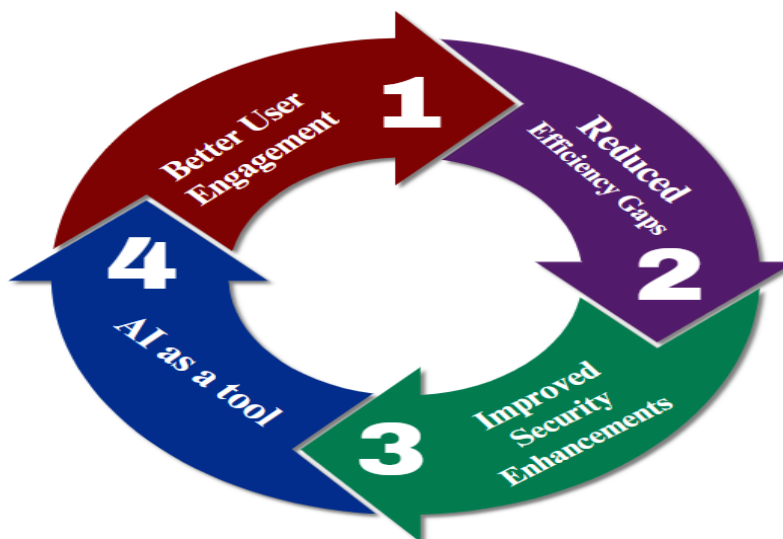


Fig. Proposed Enhancement Strategies

1. Better User Engagement:

- Implement a self-detailed, user-friendly onboarding wizard to increase user engagement.
- Provide incentives for registering and submitting feedback.

2. Reduced Efficiency Gaps:

- Create an AI-powered scheduling system for instant match-ups.
- Incorporate a real-time messaging system to improve communication.

3. Improved Security Enhancements:

- Collaborate with cybersecurity specialists for frequent assessments to improve security.
- Maintain current knowledge of industry rules and compliance requirements.

4. AI as a tool:

- Implement an AI chat bot that can assist with registration and login processes as needed, particularly for the older age groups.
- Implement an AI assistant that can provide a walkthrough of the entire portal, describe all accessible functionalities and features, and aid with any troubleshooting (if necessary).
- Implement a well-trained supervised machine learning model that may assist in identifying the likelihood of an illness based on user input (e.g., an image of a skin disease), thus functioning as an assistance in diagnosing and consulting about a specific ailment.
- The AI assistant, provided and developed with a large knowledge base and a rudimentary understanding of common sense (such as Cyc AI), can be advantageous.

6. ACTIONABLE STEPS

Actionable steps are self-created activities that are doable, efficient, and manageable.

1. In the Short Term:

- Within three months, streamline user registration and onboarding.
- Launch an awareness campaign emphasizing the platform's increased efficiency.

2. Long-Term:

- AI-driven scheduling should be implemented within six months.
 - Implement real-time communications services within a set time frame, say eight months.
3. In the Long Run:
- Work with cybersecurity professionals to conduct regular security evaluations.
 - Form a compliance team to oversee and update privacy policies.

7. IMPACT ASSESSMENT

An impact assessment is a method for planning and decision-making that evaluates the potential positive and negative effects of proposed projects.

1. User Satisfaction:
 - Improved onboarding and scheduling processes can boost user happiness by 20%.
 - Real-time communication elements could enhance the number of successful consultations by 15%.
2. Effectiveness:
 - AI-driven scheduling has the potential to reduce consultation scheduling time by roughly 30%, which is a significant difference.
 - Real-time texting has the potential to cut consultation times by 25%.
3. Security and Regulatory Compliance:
 - Regular cybersecurity assessments may help to prevent data breaches and maintain user trust.
 - Adherence to industry regulations lowers legal risks and boosts the platform's credibility.

8. CONCLUSION

The proposed enhancement solutions are intended to solve identified problems and inefficiencies in the operational framework of MedConnect. Implementing these techniques will result in a more efficient, user-friendly, and secure medical

consulting platform, contributing to the platform's overall success in changing healthcare communication.