**Business objectives**

Care Plus Health aims to create an AI-powered healthcare solution that makes medical support faster, smarter, and more accessible. Our main goals are to:

Provide **accurate diagnostic-based prescriptions** and reliable **chatbot support** to assist patients and healthcare professionals.

Ensure patient safety, privacy, and regulatory compliance at all times.

Offer 24/7 virtual support, reducing long wait times for medical advice

Improve decision-making by combining trusted data with proven medical practices

Continuously improve the AI system through updates, feedback, and **continuous improvement.**

**Business Success Criteria**

**Accuracy:** Ensure that AI-driven diagnostic recommendations match medical professionals assessments with a **90–95% accuracy rate.**

**Adoption:** Attract and engage **over 5,000 active users** including patients and healthcare providers within the first year.

**Efficiency:** Cut down consultation and response times by **at least 40%,** making healthcare faster and more accessible.

**Compliance:** Protect patient information by meeting the highest privacy and security standards, including HIPAA and POPIA.

**Satisfaction:** Achieve a minimum of **85% positive user feedback**, reflecting trust and confidence in the platform.

**Business Background**

Care Plus Health was created to solve real problems in the healthcare industry such as long queues, overworked medical staff, and patients struggling to get timely advice. Advances in AI now make it possible to provide **instant, reliable, and personalized healthcare support**. Our solution combines **diagnostic-based prescriptions**, which help guide treatment decisions, with a **friendly chatbot** that patients can interact with anytime, anywhere making healthcare more efficient and accessible.

**Requirements**

Functional Requirements

Ensure data security through advanced encryption techniques

Connect securely to medical databases so the AI can give trustworthy and updated guidance.

AI system for analysing patient symptoms and providing diagnostic suggestions.

Friendly chatbot that talks naturally and helps users in a conversational way

Non-Functional Requirements

Chatbot response times of less than two seconds.

Build the platform to easily **handle increasing numbers of users** as demand grows.

Ensure the system is available and operational at least **99% of the time.**

**Constraints**

Protect patient information by meeting all required healthcare regulations, including HIPAA and POPIA

Dependence on high-quality, verified medical data for AI accuracy.

Finish the project on time and within the set budget

AI serves as a support tool, not a replacement for professional medical judgment.

**Risks**

Cybersecurity threats that could compromise patient data.

Changes in healthcare regulations may require additional updates and costs.

Risk of incorrect AI recommendations if training data is limited or biased.

**Initial Assessment of Tools & Techniques**

**Natural Language Processing (NLP):** Powers the chatbot to have smooth, natural, and human-like conversations with users.

Feedback and Continuous Training to keep improving performance over time.

**Data Preparation Methods:** Organize and clean medical data to ensure the AI learns from reliable information.

**Machine Learning Models:** Used to recognize patterns in medical data and improve the accuracy of diagnoses.

**Cloud Computing & Security Tools:** Provide scalable performance while keeping patient data safe and secure.