**Concept of Operations (ConOps)**

Saint Leo University

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**A Case Study on Operational Concepts**

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# Introduction

The healthcare industry is constantly evolving, and technology is playing an increasingly critical role in improving patient outcomes while reducing healthcare costs. As such, our team is proposing the development of a healthcare application system that will incorporate the latest technological advancements to provide a better healthcare experience for both patients and healthcare providers (Beasley et al., 2023). To ensure that the application system is designed and developed in a structured and efficient manner, we will adopt a system engineering approach that incorporates both agile and waterfall methodologies (Beasley et al., 2023). This approach will enable us to develop a working application system that meets the needs of both patients and healthcare providers. To achieve our goals, we will begin by developing a Concept of Operations (ConOps) for the proposed system (Laarni & Väätänen, 2023). The ConOps will provide an overview of the system's functionality and how it will be used by patients and healthcare providers. This document will be used as a basis for designing and developing the system, and it will also serve as a reference for testing and validation (Laarni & Väätänen, 2023).

# Discussion

# Needs that Motivate Development of a New System

The healthcare industry is undergoing a significant transformation, and there is a need for healthcare providers to embrace innovation to provide better services to patients. Patients want healthcare services that are easily accessible, affordable, and of high quality. To address these needs, our proposed healthcare application system leverages technology to provide patients with a more convenient and personalized healthcare experience (Rodrigues et al., 2023).

The system will enable patients to schedule appointments, consult with healthcare providers remotely, and access medical records and prescription information on their smartphones or other devices. Additionally, the system will use artificial intelligence and machine learning algorithms to provide personalized recommendations to patients based on their health status and medical history (Rodrigues et al., 2023).

Healthcare application system will enable healthcare providers to improve their operations and provide better care to patients while reducing costs. The system will also help healthcare providers to optimize resource allocation, reduce waiting times, and increase efficiency. Overall, the healthcare application system will provide patients with a more convenient, efficient, and personalized healthcare experience while helping healthcare providers to deliver better care (Rodrigues et al., 2023).

The proposed healthcare application system is a comprehensive and innovative platform designed to provide patients with easy access to healthcare services from their homes. The system will offer patients a range of features that include scheduling appointments, receiving virtual consultations, and accessing their medical records securely. With the use of technology, patients will have a more personalized experience that meets their unique needs (Kalume et al., 2023).

The system's features will allow healthcare providers to manage patient data efficiently, schedule appointments, and communicate with patients. Providers will have access to a centralized platform that simplifies the management of patient information, which can help to reduce errors and improve patient outcomes. The platform will also enable providers to offer virtual consultations, which can improve patient access to care and reduce the need for in-person visits (Kalume et al., 2023).

Overall, the proposed healthcare application system has the potential to revolutionize the healthcare industry by improving patient experiences and outcomes. The integration of technology in healthcare can lead to more efficient and effective healthcare delivery, which benefits both patients and healthcare providers (Kalume et al., 2023).

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## Four or More User Classes and Their User Characteristics

**Patients**

Patients will be the primary users of the healthcare application system. They will be able to use the system to schedule appointments, receive virtual consultations, and access their medical records. Patients will be able to access the system using their smartphones or computers (Siddiqi et al., 2023).

**Healthcare Providers**

Healthcare providers, including doctors, nurses, and other healthcare professionals, will use the system to manage patient data, schedule appointments, and communicate with patients. Healthcare providers will be able to access the system using their computers or tablets (Siddiqi et al., 2023).

**Administrative Staff**

Administrative staff will use the system to manage patient data, schedule appointments, and provide support to patients and healthcare providers. Administrative staff will be able to access the system using their computers or tablets (Siddiqi et al., 2023).

**Insurance Providers**

Insurance providers will use the system to manage patient data, process insurance claims, and communicate with patients and healthcare providers. Insurance providers will be able to access the system using their computers or tablets (Siddiqi et al., 2023).

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## Other Stakeholders and Their Stakeholder Characteristics

**Regulators**

Regulators are an important stakeholder in the healthcare application system as they are responsible for ensuring that the system complies with the regulatory requirements. They will be interested in the healthcare application system to ensure that it is secure, follows the data protection laws, and complies with other relevant regulations (Siddiqi et al., 2023).

**Investors**

Investors are another important stakeholder in the healthcare application system. They will be interested in the system's financial viability and potential for growth. They will want to know how the system generates revenue and whether it has the potential to expand into new markets. Investors will also assess the management team and the overall strategy of the company (Beasley et al., 2023).

**Third-party software vendors**

Third-party software vendors will be interested in the healthcare application system to assess its compatibility with their software. They will need to know if the system can integrate with their software, and whether their software can provide additional functionality to the system. Third-party software vendors will also need to know if the healthcare application system can meet the needs of their customers, and whether it is reliable and secure (Beasley et al., 2023).

# Conclusion

Our proposed healthcare application system aims to provide patients with a more convenient and personalized healthcare experience while also improving healthcare outcomes and reducing healthcare costs. By incorporating a system engineering approach and leveraging both agile and waterfall methodologies, we aim to design and develop a working application system that meets the needs of all stakeholders, including patients, healthcare providers, insurance providers, administrative staff, regulators, and investors. The Concept of Operations (ConOps) outlined in this report provides an overview of the key elements of our proposed healthcare application system.

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