

## **Part 1**

### **Concept of Operations (ConOps)**

Saint Leo University

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# **OPERATIONAL CONCEPTS**

## **Introduction:**

A Hospital Management System (HMS) is a software solution that is designed to help healthcare organizations manage their day-to-day operations more efficiently. It was developed to address the challenges of manual processes in managing patient records, appointments, and prescriptions. The system aims to improve patient care and satisfaction, increase staff productivity, and reduce errors and inefficiencies associated with paper-based systems.

## **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.

The hospital management system is a web-based application that allows patients to register, book appointments, and view their medical history. Doctors can access patient records, prescribe medications, and manage appointments. The admin has full control over the system and can manage patient data, doctor details, and appointment scheduling. The system is unique in its simplicity and ease of use, which helps in reducing errors and increasing efficiency.

## **Four or more user classes and their characteristics:**

**Patients:** Patients can register and book appointments online. They can view their medical history and prescriptions. Patients can also communicate with doctors through the messaging feature.

**Doctors:** Doctors can access patient records, prescribe medications, and manage appointments. They can communicate with patients through the messaging feature and view their schedules.

**Admin:** The admin has full control over the system and can manage patient data, doctor details, and appointment scheduling. They can also generate reports on patient and doctor activity.

**Nurses:** Nurses can access patient records and update them as necessary. They can also assist doctors during appointments.

## **Other stakeholders and their characteristics:**

**Hospital management:** Hospital management can use the system to track patient and doctor activity and manage resources efficiently.

**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

## **Conclusion**

Developing an HMS using HTML, CSS, JavaScript and backend like PHP and MySQL connecting to Azure Cloud requires careful planning, attention to detail, and a deep understanding of healthcare operations and regulations. With these key operational concepts in mind, you can design and build a system that meets the needs of your hospital and improves patient outcomes. By leveraging the latest technologies and following best practices, you can create a scalable, secure, and user-friendly HMS that supports the goals of your healthcare organization.

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