



**CMT425**

# **Enterprise Architecture Design for Hospital System**

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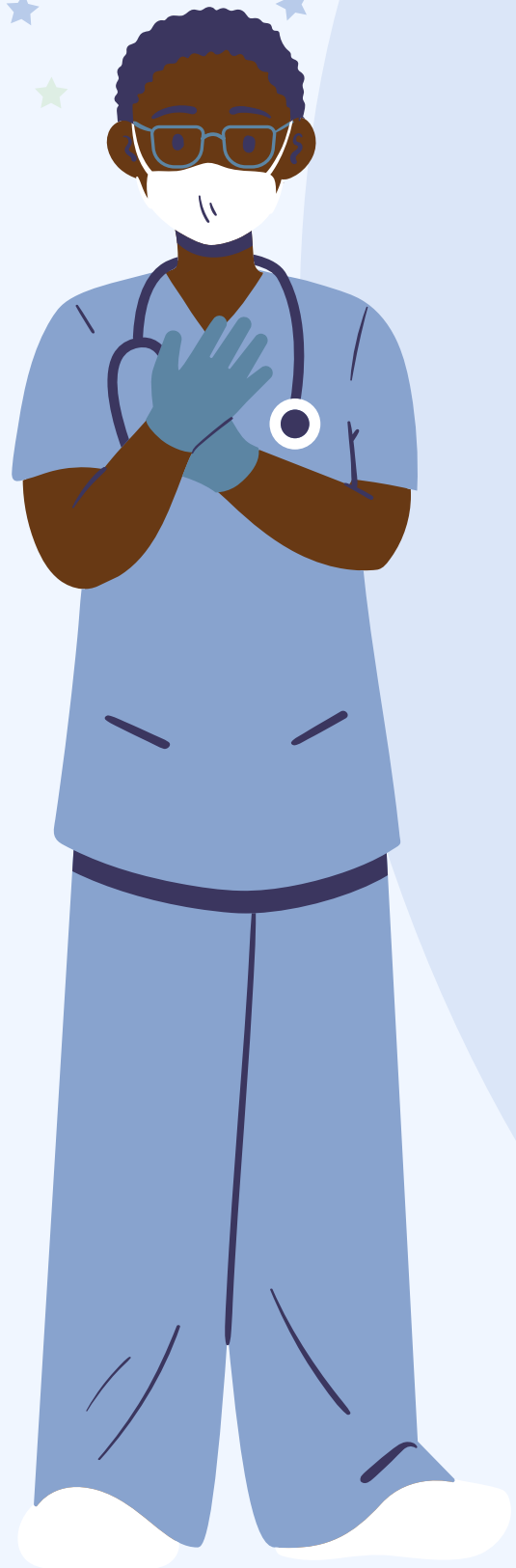
# Business Requirement and EA Overview

Enterprise Architecture (EA) aligns business goals, processes, information systems, and technology infrastructure to ensure the long-time success for the organisation.

In healthcare, EA improves data exchange, patient care coordination, resource allocation, operational efficiency, and care quality which leads to higher patient satisfaction.

The primary stakeholders in EA implementation in a hospital include executive leadership, business unit leaders, IT leadership, clinicians, and enterprise architects.

Effective EA implementation includes various activities such as strategic planning, stakeholder collaboration, continuous improvement, and the use of tools with success measured through a set of specified KPIs.



# Enterprise Architecture

## Business Architecture

The main goals of a hospital are to provide high-quality patient care, improve patient satisfaction, and ensure financial sustainability. To achieve the goals, a few core processes has been defined including treatment and medication management. Stakeholder analysis is also conducted to understand their business needs and requirements.

## Data Architecture

Different types of data such as individual and clinical data involved in the hospital system, which demands for a comprehensive management and design for the data architecture. Implementing standards, policies, and good practices provide integrity helps to ensure efficiency in managing data.

## Application Architecture

In a hospital context, various applications are needed to support their operation such as Electronic Health Records (EHR), billing software and many more. These applications need to be compatible, scalable, and can be integrated with each other to ensure a high quality patient care.

## Technology Architecture

Enablers including EHR and billing software are included in the technology architecture for the hospital system along with strong security measures to enhance operational efficiency and patient care. Proposing a complete technology architecture ensure reliable performance of the system.

