

Universiti Teknologi MARA

PHARMAEASE : MEDICAL STORE MANAGEMENT SYSTEM

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ABSTRACT

The PharmaEase - Medical Store Management System is a comprehensive solution addressing common challenges faced by pharmacies, such as inventory mismanagement, regulatory compliance, and operational inefficiencies. The system integrates real-time inventory tracking, and automated reordering. It also includes expiration date monitoring to enhance stock accuracy and eliminate human errors. By streamlining these processes, PharmaEase ensures that essential medications are readily available, improving customer satisfaction while reducing waste and financial losses. To address regulatory compliance, the system maintains accurate transaction records, ensuring pharmacies meet legal standards and audit requirements seamlessly. Its user-friendly interface allows pharmacy staff to efficiently manage inventory, process transactions, and access real-time data. Furthermore, the system provides pharmacy managers with insightful reports on sales trends, stock levels, and customer preferences, empowering them to make informed decisions and optimize resource allocation. PharmaEase adopts the Rapid Application Development (RAD) methodology, emphasizing iterative development, user feedback, and adaptability. This approach ensures the system is delivered within a short timeframe while remaining responsive to evolving user needs and industry demands. The intuitive design focuses on usability and accessibility, making the system easy to navigate for pharmacy staff and improving operational efficiency. As the pharmaceutical industry becomes increasingly complex, the PharmaEase system addresses critical gaps in inventory management and operational workflows. It enables pharmacies, such as DELIMA Pharmacy in Machang, to provide safer and more reliable services to customers by ensuring accurate inventory levels, compliance with regulations, and streamlined operations. By tackling these challenges, the system offers a timely and scalable solution to support the growth and efficiency of the healthcare sector, ultimately enhancing patient care and the overall effectiveness of pharmacy operations.

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CHAPTER 1 : INTRODUCTION

The main topics of the first chapter discuss the background, problem statement, research questions, research objectives, scope, project significance, expected outcome and project limitation. It provides an overview of PharmaEase, which is designed to support pharmacies in managing inventory, tracking medicine sales, ensuring compliance with healthcare regulations, and enhancing operational efficiency.

1.1 BACKGROUND

Medical Store Management System PharmaEase is developed for DELIMA Pharmacy situated in Wakaf Bharu, Kelantan as it is developed especially to tackle the main issues of the medical store which include bill compliance and inventory management (B. Maskar et al., 2022; Mahatme et al., 2012). Regulations governing sale and distribution of medication, record keeping and medication stock management are more than just legal requirements but operational integrity and safety of the consumers in this line of production (Medical Stores Management, n.d.-a). Most pharmacies set high levels of advertisement to regulatory laws regarding issues like tracking of drugs, prescription, and recordation of stocks among others that involve the control of substances (Bharatiya et al., 2023a; Kom, 2024). Civil or legal consequences following non compliance might lead to fines, legal actions besides reducing the quality of healthcare to patients (Gupta, 2020). To address these problems, PharmaEase addresses the problems by automating the inventory management processes and updating all records at any opportunity and in compliance with the existing pharmaceutical laws and safety standards (AltexSoft, 2021; Kovalenko, 2024). These components of the solution free the pharmacy from time-consuming inventory tracking and order management and keep the pharmacy in full compliance with regulatory requirements, thus mitigating risk inherent to manual systems (Mangku, 2024).

Real time monitoring of the inventory is also possible within the system and this is another essential parameter needed to monitor stock (Parker, 2024). With accuracy, PharmaEase monitors the status of medicines, medical equipment, as well as narcotics (Medical Stores Management, n.d.). This functionality reduces the likelihood of stockouts, whereby an