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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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A PROBLEM STATEMENT REPORT

ON

Service Learning at Cipla Palliative Care and Training Centre

BACHELOR OF TECHNOLOGY COMPUTER SCIENCE & ENGINEERING

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NGO
Cipla Palliative Care and Training Centre

Introduction

Cipla Palliative Care and Training Centre is a dedicated healthcare institution focused on providing compassionate support to patients with life-limiting conditions. Alongside medical treatment, the centre places significant emphasis on the overall well-being and comfort of patients through holistic care approaches. Nurses play a critical role in delivering this care, involving both patient interaction and management of essential resources. However, with increasing reliance on digital tools, there is a growing need for streamlined technological support to enhance the efficiency of routine tasks such as documentation and inventory management.

Problem Statement

During our interaction with the nursing staff at Cipla Palliative Care, it was observed that there are notable challenges faced in the adoption and use of basic digital tools, particularly Microsoft Word and Excel. This limits their ability to efficiently manage records, generate reports, and perform data-driven tasks. Additionally, the current process of inventory management—especially concerning food supplies—is manual, time-consuming, and susceptible to errors. This often results in either overstocking or understocking of food items, impacting the quality of patient care. There is also a lack of an automated system to calculate patient-specific food requirements based on dietary needs.

Objective

The primary objective of this project is to simplify and enhance the technological engagement of the nursing staff by:

- Providing easy-to-follow resources and training for fundamental digital tools like Microsoft Word and Excel.

- Developing a user-friendly inventory management software integrated with a barcode scanning system for efficient stock tracking of food supplies.

- Building a feature within the software to recommend appropriate quantities of food items based on individual patient dietary needs, thus ensuring optimal resource utilization and improved patient care.

- Providing support to nursing staff in efficiently managing pill distribution schedules by designing easy-to-use spreadsheets that automatically calculate patient-specific

dosages and timings, addressing the challenges nurses face in creating such structured and accurate tracking systems on their own.

Requirements

Functional Requirements

- Interactive tutorial modules for Microsoft Word and Excel, tailored for non-technical users.

- A web-based or desktop application for inventory management.

- Barcode generation and scanning feature for stock intake and usage tracking.

- Food requirement suggestion system based on patient data such as dietary plans, medical conditions, and preferences.

- Report generation feature to monitor stock levels and consumption trends.

Non-Functional Requirements

- Simple and intuitive user interface suitable for healthcare workers with minimal technical background.

- Low-maintenance and easily updatable system.

- Secure data handling to protect patient-related and inventory information.

- Scalable design to accommodate additional features in the future if required.

Summary

Our project aims to empower the nursing staff at Cipla Palliative Care by equipping them with essential digital skills and developing an efficient, easy-to-use software solution for inventory, pills distribution and patient dietary management. By addressing these practical challenges, the solution will contribute towards improving operational efficiency, reducing manual workload, and enhancing patient care outcomes. This initiative aligns with Cipla's holistic care philosophy and fosters the adoption of technology in healthcare environments for more effective service delivery.