fINAL PROJECT PROPOSAL

Star Medical Patient Information Management System

Dulce Carrillo Fernandez

INEW2332 Lone Star College

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# CUSTOMER STATEMENT & PROBLEM STATEMENT

In today's healthcare environment, efficient management of patient information is crucial. STAR PIMS is a Patient Information Management System designed to empower medical staff in delivering high-quality care. This system is designed to enhance workflow, streamline data access, and improve healthcare delivery. This system focuses on medical staff operations while ensuring security and usability.

## Customer Project Requirements

The customer is seeking a Patient Information Management System (PIMS) that enables medical staff to efficiently manage patient data. The system should allow doctors to:

* Add new patients to the system
* Remove Patients from the database as needed
* Update existing patient information
* Make referrals to other doctors
* Schedule future appointments

According to the customer, the PIMS must be user-friendly, secure, and compliant with relevant healthcare regulations. This program aims to design, develop, and implement PIMS for a small clinic. The system will enable medical staff within the clinic to efficiently manage patient data and enhance patient care.

## Changes Requested by Customer

As a natural part of creating a project, the customer requested to make some modifications to the original project proposal. Instead of creating a doctor & patient application, to facilitate the management of data and ensure user and patient security, the project was brought down to simply a doctor-based application as per request of the customer. This ensured that all data remained within the medical staff and workers.

# CUSTOMER PROJECT REQUIREMENTS

The system now incorporates essential forms that facilitate doctor-driven patient management forms:

* **Login form** – Secures access for medical staff. Medical staff can create their own accounts, log in with their existing accounts, and reset their password
* **Doctor Form** – Doctors are able to access all of the control and forms to create new patient account and access patient-oriented forms and information from the database
* **Prescription Form** – Allows doctors to write and issue prescriptions digitally as well as setting refills
* **Register Form** – Enables the addition of new patients to the system
* **View Patient Form** – Displays comprehensive patient records for reference and updates
* **Billing Form** – Manages patient billing and payment processing

With these forms, STAR PIMS is able to provide doctors with an program that can help them manage patient care, prescriptions, appointments, and financial records efficiently.

# PROJECT OUTLINE

Initially, the main goal of the project was to enhanve patient care by providing a quick and easy access to comprehensive patient data, and replace outdated unmanageable paper-based systems with a centralized digital one. All of this with the goal of providing a fast, safe, and personalized platform where doctors could managepaitent information on.

After the completion of the project, the system has successfully met the initial project goals. STAR Patient Management Information System:

* Improves doctor efficiency – doctors have instant access to patient medical history, prescriptions, refills, and appointments within a centralized dashboard
* Enhances workflow automation – digital record-keeping eliminates paperwork and ensure patient registration, billing, and prescription issuance are seamless and organized
* Secures data management – Password encryption ensures a safeguard for sensitive medical information
* Replaces outdated and unmanageable paper-based systems with digital applications where doctors are able to keep a more organized management of the patients.

# TOOLS/PROGRAMS UTILIZED:

For this project, the following tools were utilized:

* **C# programming language**: general-purpose, oject-oriented programming language used for building Windows applications.
* **SQL**:A standardized programming language for managing and manipulating data in relational databases. Used to create, access, and update tables of data. All existing tables can be found on this page in the *Database Tables* section.

## DATABASE TABLES

* User Table

A screenshot of a computer code

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* Patient Table

A screenshot of a computer code

AI-generated content may be incorrect.

* Medical Records Table
  + Medical Conditions
  + Medications
  + Doctor Notes
* Prescriptions

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* Billing

# SYSTEM ARCHITECTURE AND DESIGN

The doctor-only dashboard follows a client-server architecture featuring the following features:

* **Database server** – to store patient and doctor information securely. The database server now stores all patient information, including but not limited to personal patient details, medical history, appointments, medication, and billing information.
* **Client Application** – to enable doctors to interact with he system through the coded forms. The system now supports an accessible Windows/Client application where users are able to access the program from their computers.