Medical Care Management System

# **Introduction**

**1.1 Document Purpose**

This document establishes the vision for the Medical Care Management System. It focuses on meeting the needs of current medical establishments such as hospitals, urgent cares, and surgery centers.

**1.2 Document Scope**

The vision document is aimed toward the Medical Care Management System (MCMS). This serves as a more simplistic and convenient way to store medical records rather than keeping paper documents. This system allows you to perform multiple tasks with the click of a button in one application.

# **Positioning**

**2.1 Business Opportunity**

Our system will be marketed to hospitals, urgent cares, and many types of healthcare settings due to our wide variety of functions.

**2.2 Problem Statement**

The problem of there not being a central application to seek medical care online affects patients who may not want to leave their homes, or wait for hours in a clinic or hospital for medical help. The impact of the problem is patients not getting the medical care they need in a timely fashion. A successful solution would include a process that would allow users to:

* Input a username and password to access their medical records.
* Provide and store their medical history.
* Allow family member’s access to the patient’s medical records in order to add to the patient’s medical family history.
* Give accurate dates to when the information was submitted.
* Get assigned to a doctor that fits the patient’s needs.
* Request medication to be shipped to the user's home if, and only if, prescribed by a doctor.

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# **Stakeholder and User Descriptions**

**3.1 Stakeholder Summary**

|  |  |  |
| --- | --- | --- |
| **Name** | **Description** | **Responsibilities** |
| Esai Jimenez | Project Manager, Software Developer | Oversees and delegates resources, establishes priorities, and keeps the team on target. |
| Alex Arriaga | Lead Software Architect | In charge of the overall design and implementation of the software. Ensure the user’s needs are met in the development of the system. |
| Eric Brewer | Requirements Engineer, Software Developer | Determine the needs of the user and convert them into requirements. |

**3.2 User Summary**

|  |  |  |
| --- | --- | --- |
| **Name** | **Description** | **Responsibilities** |
| Patient | Primary end user for the system | Uses application to keep track of their medical records, keep in contact with a doctor |
| Patient’s Family Members | End user for this system | Uses application to add to patient’s family medical history |

# **Product Overview**

**4.1 Product Perspective**

The user will have access to an unlimited amount of data at their fingertips. Medical staff will be able to perform a variety of tasks much more efficiently in the workplace. For example, using our prescribe feature, you will be able to look at the patient's medication history, and then directly send a prescription to the pharmacy at their bedside. This will make day-to-day life much more efficient and logical in a medical environment.

**4.2 Summary of Capabilities**

The benefits of this program allow you store, access, and edit medical records much more efficiently, by making them available to you at the tips of your fingers. You can search for the patient by name, address, or date of birth. From there, you can access all of their medical records, send prescriptions directly to the pharmacy.

**4.3 Assumptions and Dependencies**

* Patient is running the following operating system:

1. Windows 10

* Patient is literate and can operate a mouse and keyboard
* The default language will be US English
* Project team members have the required knowledge to be able to complete their individual tasks
* Project team members have available resources required to complete their individual tasks on time
* The scope of the project will not change during its life cycle
* Sample end users will be available to test during the time they have agreed to

# **Product Features**

Our product features include:

* Sending Prescription to be filled
* Permissions for doctors, nurses, and more
* Search by name, address, or date of birth
* Access to Patients full medical profile
* Edit and add medical information to a patient profile
* View Medication History
* View Patients most recently entered vitals
* Sort patients by medication info.
* Sort patients by procedure
* Surgery Queue
* Automatic billing based on patient billing information

# **Constraints**

**6.1 System-Supported Platforms**

The system will be developed using the following platform tools that will be be able to run on multiple platforms:

* C#
* Windows Presentation Foundation

**6.2 Government Privacy Laws**

In accordance with the three components of HIPAA, implement the proper measures to ensure the appropriate levels for administration, physical security, and technical security for patient confidentiality. Safeguard patient information from outside sources as well as inside sources that do not need access to their data.

**6.3 Securely Backup Data**

In the event of a system failure or corruption, ensure that scheduled backups are performed at a set interval in accordance with guidance from the customer. These backups will also be encrypted to prevent unwanted access to the data at any time.

**6.4 Accurate Medical Billing**

The system will be able to precisely bill patients, as well as accurately create and send claims to insurance companies. This will serve as the backbone of revenue for the client as well as prevent incorrect charges that may happen otherwise.

**6.5 Time Frame**

The system must be fully functioning and ready for delivery by April 22, 2021.

# **Other Product Requirements**

* Minimal amount of clicks
* Adhere to consistent naming and coding conventions, following the Google Style Guide
* Create trouble tickets for the systems administrator to quickly resolve any issues that may arise