



COLLEGE: KCA UNIVERSITY

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UNIT: SOFTWARE COMPUTING PROJECT

**ST JOSEPH'S MISSION HOSPITAL- MIGORI
PATIENT'S RECORD MANAGEMENT
SYSTEM IMPLEMENTATION PLAN**

REG NO: 20/04451

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1. Introduction

1.1 Purpose

The purpose of this document is to describe how the information provided by St. Joseph's Mission Hospital stakeholders, management and the staff will be deployed. The document contains an overview description of the system, a brief description of the major tasks involved, the overall resources needed to help support the implementation effort of the system. These resources include: hardware, software, facilities, materials and personnel.

1.2 System Overview

St Joseph Patient's Record Management System is a system that will be used to manage all patient's records. The system will enable smooth healthcare performance along with medical, legal, financial and administrative operations. Hence successful operation of St Joseph's Mission Hospital.

1.2.1 System Description

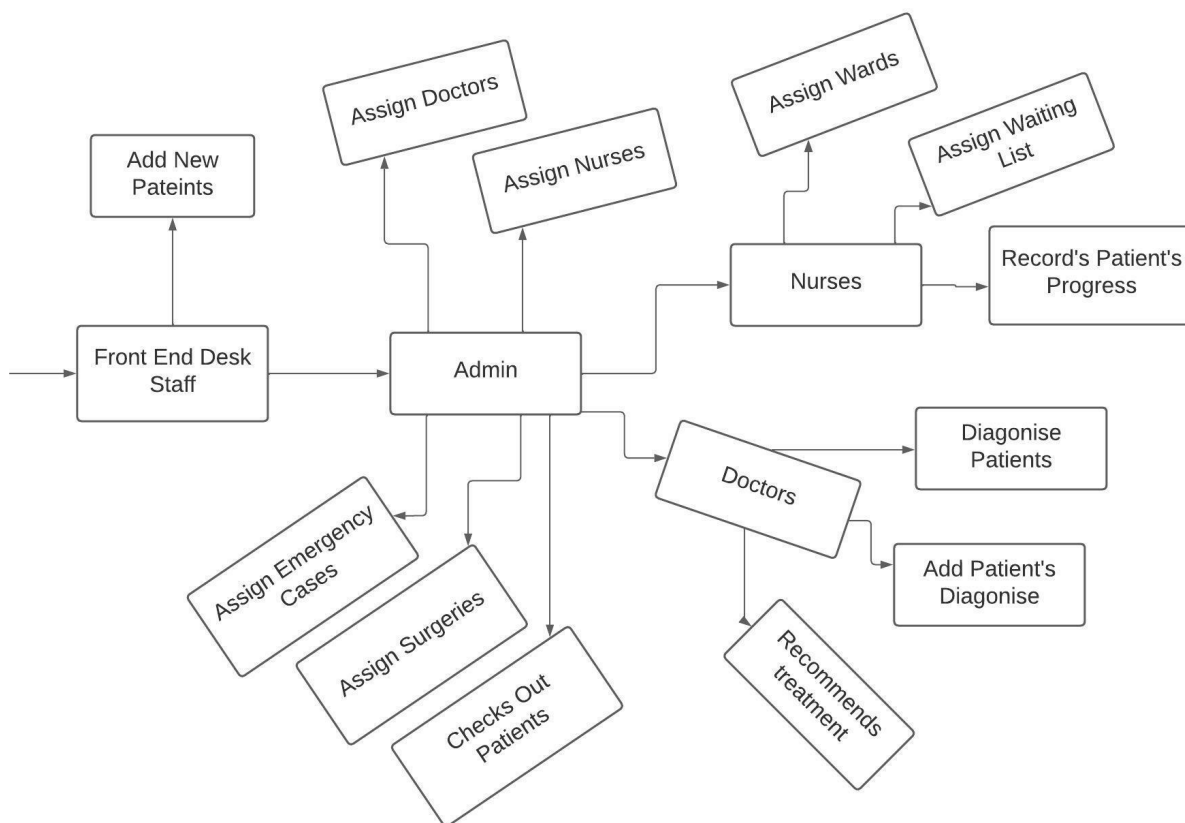
The software product is a Patient's Record Management System. The system will be used to register patients, manage admissions and perform the overall management of all departments. These functions will be performed with a high degree of accuracy. The modules of St. Joseph Patient's Record management system are user-friendly and easy to access.

The intentions of the system is to store and manage patient's records. This will help doctors to easily correctly diagnose patients and prevent the loss of patient's records due to the use of physical cards.

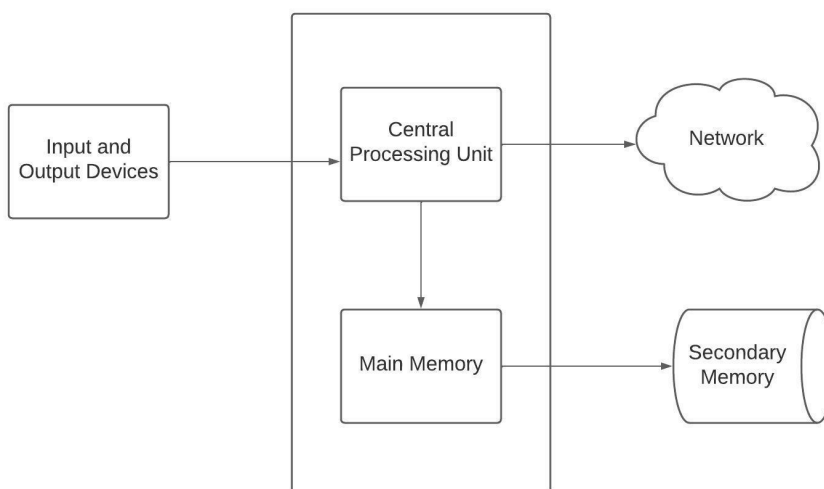
1.2.2 System Organization

The system is comprised of the Front-end desk panel, the admin panel, the doctors panel and the nurses panel.

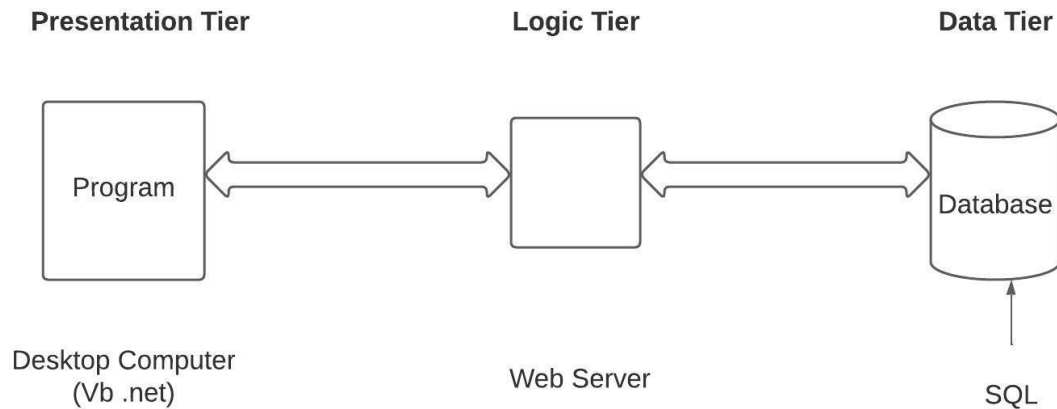
The Following is the system's data flow diagram.



The following diagram outlines the system's hardware architecture.



This is the system's software architecture.



2. Management Overview

This section provides a description of the system's implementation and the major tasks involved.

2.1 Description of the Implementation

The system will be implemented by changing the order in which patient's records are handled at St. Joseph's Mission Hospital. The System will have a front-end desk panel that will help the Front-end desk staff to admit all the new patients into the hospital. The system will have an Admin Panel whereby the admin will be responsible of assigning patient's to their doctors and nurses, assigning emergency cases by assigning rooms, surgeons, nurses and patients. The admin will be able to signing out the patients from the hospital.

The system will have a doctors panel that will enable the doctor to write the patient's diagnosis and recommend treatment for the patients. The doctors will also be able to see the patients they are assigned by the admins. There will be a nurses panel that will enable the nurses monitor the patient's

progress. The system will enable the nurses to assign wards to the patients. They will also be able to assign the patients to the waiting list waiting for the available beds.

The system information will be stored in MySQL in the cloud from where the staff will be able to access real time information of the patient's records and be able to backup the patient's information.

2.2 Points of Contact

System proponent	Name	Telephone No.
Project Manager	Peter James	0748391234
Program Manager	Wickliffe Orwa	0742364567
Security Manager	Shahaman James	0756234521
Database Administrator	Redna Michelle	0734567876
Configuration Management Manager	Nancy Majiwa	0712457321

2.2 Major Tasks

The following are some of the major tasks that will be involved in the system implementation:

Providing overall Planning and coordination for the implementation.

This tasks will enable plan the whole implementation process of the system. This will enable a smooth running of the system implementation.

The key Persons responsible for this task are the project manager and the program manager.

Providing Appropriate Training for the personnel

This task will enable the hospital staff to familiarize themselves with the system and to be able to run the system smoothly

- ✓ Ensuring that all manuals applicable to the implementation efforts are available when needed.
- ✓ Acquiring special hardware and software.
- ✓ Providing all the needed technical assistance
- ✓ Preparing site facilities for implementation
- ✓ Providing personnel for the implementation team.
- ✓ Scheduling any special computer processing required for the implementation
- ✓ Performing site surveys before implementation.
- ✓ Ensuring that all per-requisites are fulfilled before the implementation date.

2.4 Implementation Schedule

No.	Description of the Activity	Expected result	Executor	Deadline
1	Analysis of the requirements	Overview of the core issues that need solving	Wickliffe Orwa	2/11/2022
2	Preparation of test data	Test dataset and clear scenarios	James Ndi	4/11/2022
3	Testing	Clear overview of the software capabilities	Wasonga David	6/11/2022
4	Implementation Planning	Detailed implementation Plan	Kashuru Ndoro	8/11/2022
5	Data Preparation	Seed data prepared	Wainaina David	12/11/2022

6	Implementing Critical functions	Limited department functions are implemented	Robert Bushere	13/11/2022
7	Implementing all functions	All department functions are implemented	Burnet Brown	14/11/2022
8	Developing intergrations and customizations	All system intergrations are done	Nancy James	15/11/2022
9	Performance review	Overview of realized benefits.	Peter James	16/11/2022

2.5 Security

This is an overview of the system's security features during the implementation.

2.5.1 System security features

The system will have strong passwords to prevent unauthorized access of the system. Every admin, front-end desk staff, nurses and doctors will have strong passwords present.

Antivirus software will be installed on every machine where the system will run to protect the system against malicious soft wares.

A firewall will be used to protect the hospital's network.

2.5.2 Security During Implementation

The machines used to develop the system will be used for only one purpose which is to develop the system and not any other to prevent hacking attempts to the organization via the staff's personal machines.

Only the allowed personnel will be able to access the system during the development

3. Implementation Support

This sections describes the support, equipment, facilities and materials required for system implementation.

3.1 Hardware, Software, Facilities and Materials

3.1.1 Hardware

The implementation will be done on a:

- ✓ HP laptop, Intel Processor,
- ✓ Core i5 7 th Gen.
- ✓ The laptop has an 8 GB RAM and a 2.7 GHz processor speed.
- ✓ The system will operate on a hardware platform with the following minimum requirements:
- ✓ 4 GB RAM Intel Processor Core i3 5 th Gen 1.9 GHz processor speed.

3.1.2 Software

The implementation is done on a windows 10 operating system.

The system will operate on from windows 7 operating system and above.

The system is developed for windows 7, windows 8 and windows 10. The system will use VB net for the user interface. It will store all the data with the use of MySQL.

The system synchronizes with MySQL to store all the information concerning all the patient's.

3.1.3 Facilities

During the implementation. 1 office is required to accommodate the staff. 2 washrooms for both the ladies and the men. A strong Wi-Fi connection is required for internet access.

Every staff should have their own desk to operate from.

3.1.4 Materials

The Support Materials required during system development is a hard-disk drive, a flash-disk drive, a lap-top, charger and internet Connection.

3.2 Personnel

This section describes the personnel requirements. It describes the training for the implementation staff.

3.2.1 Personnel Requirements and Staffing

The number of personnel required are 10.

The personnel should be computer literate

The developers should be well skilled in their particular programming languages.

Example Personnel include:

Project Manager

Program Manager

Developers

Security Manager

Database Administrator

Configuration Management Manager.

3.2.2 Training of Implementation staff

The personnel will be trained on how to go with the system development. They should be well equipped with the knowledge and understand the technicalities of the system.

Some of the training that the staff will go through include:

- ✓ System Support
- ✓ System Hardware installation
- ✓ System Software Installation
- ✓ System Maintenance and modification.

3.3 Performance Monitoring

Performance monitoring systems will be set up to track the metrics of the system.

These metrics include: memory usage, web server response time. These metrics helps inform the health of various system elements.

Performance bench marking can also be done to compare different metrics of the system.

4 Implementation Requirements By Site

4.1 Front-end Desk Implementation

This is the system implementation that will be done for the front-end staff

System Requirements

- ✓ Adding new patient's records
- ✓ Prevent unauthorized access.

System Implementation

The system will be built providing the staff with a login form to authenticate against unauthorized access of the system. The front-end desk staff will be able to add new data to the system.

4.2 Admin

This system implementation will be done for the admin.

System Requirements

- ✓ Assigning doctors and nurses to patients
- ✓ Assigning Emergency cases e.t.c
- ✓ Checking out patients

System implementation

The system will be built providing the interface for the Admin to perform the above activities

4.3 Doctors

This system implementation will be done for the doctors.

System Requirements

- ✓ Providing reports on number of diagnosis
- ✓ Adding patient diagnoses
- ✓ Recommend treatments
- ✓ D

4.4 Nurses

This system implementation will be done for the nurses

System Requirements:

- ✓ Assign wards
- ✓ Assigning Titlist
- ✓ Record patient's progress.

4.5 Post Implementation Verification

Once the implementation of the system is done, the system has to be verified to check whether it achieves its goals.

Various staff from the hospital will be included to add information into the system.

The staff will check whether the system checks all their boxes and they custom it.