INSTITUTE OF PUBLIC ADMINISTRATION AND MANAGEMENT

UNIVERSITY OF SIERRA LEONE

(IPAM-USL)

COURSE: BSC. *INFORMATION SYSTEMS*

MODULE LEVEL: *UNDERGRADUATE YEAR 3*

MODULE TITLE: *SOFTWARE ENGINEERING II*

SEMESTER: *SECOND SEMESTER*

LECTURER: *MR. DANIEL CHAYTOR*

TASK: *PROJECT PROPOSAL*

**GROUP FIVE (5) MEMBERS**

|  |  |  |  |
| --- | --- | --- | --- |
| **GROUP LEADER ……………………..……….. MUSA JOHN SESAY** | | | |
| **NO** | **NAME** | **EMAIL** | **ID** |
| **1** | **MUSA JOHN SESAY** | [**ing.sesayjohnmusa89@gmail.com**](mailto:ing.sesayjohnmusa89@gmail.com) | **22335** |
| **2** | **ISHMAEL SESAY** | [**muftiishmaelsesay@gmail.com**](mailto:muftiishmaelsesay@gmail.com) | **22226** |
| **3** | **SIMEON SESAY** | [**kanusimssy@gmail.com**](mailto:kanusimssy@gmail.com) | **22197** |

**URL:**

[**https://github.com/simeon-john-ishmael?tab=projects**](https://github.com/simeon-john-ishmael?tab=projects)

**PROJECT TITLE**: **PATIENT MANAGEMENT SYSTEM (PMS)**

**Table of Contents**

**Pages SECTION 1**

**4……………………… CONTRIBUTION BREAKDOWN**

**6…………..………….. PROBLEM STATEMENT**

**6………………………WHY PATIENT MANAGEMENT SYSTEM**

**7…………………..SYSTEM REQUIREMENTS SPECIFICATION**

**SECTION 2**

**8……………….............................................FEASIBILITY STUDY**

**SECTION 3**

**9…………………………………………………………OBJECTIVES**

**9** **………………...FUNCTIONAL FEATURES OF THE SYSTYEM**

**SECTION 4**

**11……………………………………………….** **DATABASE DESIGN**

**12………………….** **HARDWARE & SOFTWARE REQUIREMENT**

**SECTION 5**

**15……………….…..PROJECT MANAGEMENT GANTT CHART**

Contributions Breakdown

|  |  |  |  |
| --- | --- | --- | --- |
| Task | SIMEON  SESAY | MUSA JOHN  SESAY | ISMAEL  SESAY |
| Problem Statement |  | B |  |
| Feasibility Study | A | B | C |
| Project Category |  |  | C |
| Database Design | A | B | C |
| Modules | A |  |  |
| Documentation | A | B | C |

**SECTION 1: PROBLEM STATEMENT**

Patients are normally the core customary people of any running hospital. These are people who receive or register to receive medical treatment. Many times almost in all hospitals around, the information about patient are normally neglected. A vivid example is the Kissy Community Hospital (KCH) in which over the years a lot of compliant about patient misinformation was coming. And this is so because the method of recording patient’s information and data is manual and poor. It normally done on file base format and time wasting.

For an appointment to be given to a patient, the staff needs to go through a lot of paperwork in order not to duplicate Patient information and also to know which Doctor is assigned to that particular patient. All these matters makes us thoughtful and instigate us to implement a system that will reduce the **labor**, **cos**t, and **time** of the traditional patients recording systems. For this reason, we have decided to design an automated Patient Management System that will minimize if not eliminate the manual and file base system in the Hospital about patient records

**WHY PATIENT MANAGEMENT SYSTEM**

**Computations** of patient’s information and other records is accurately done and is controlled by parameters that users can change.

**Online** Anytime a user can print off Patients records and Appointment. Any records made on the front end affects the final records leaving no room for batching.

**Multi-user and Multi-Locations** as long as server is powerful any number of users can work in the system concurrently

**SECURITY**

Set-up Time due to its simplicity PMS takes a short time for users to have their records in the system

**Generating Reports –** PMS will be design in such a manner that it generates different kinds of reports for any duration

**SYSTEM REQUIREMENTS SPECIFICATION:**

**Patient management System** is a simple project that will be created in Python. Patient management System is a GUI based Desktop Application. It is consumer Friendly and very easy to understand.

This Project includes best user side. The consumer can perform exclusive tasks along with adding new record, updating report, search document, delete data and additionally display document in database. This Project will be very useful for all Hospitals that needs proper recording for their customers

It will contain facilities to generate various types of reports, Appointments records, and Patient records which are required by the management during operations to operate effectively. We have in this document, including the proposed designs of our systems, information on our ability to implement the scope of services described. The patient management system is a very laborious and lengthy procedure.

It requires a limited staff to perform these operations: appointment of Patients, recording of patient Information arrangement of Patient Records, and assign Patient to a Doctor.

**SECTION 2: Feasibility Study:**

What are the user’s demonstrable needs?

User needs a solution which will have all the patient names, Patient Records and Doctors Information, which will remove all the above-mentioned Problems that the user is facing. The user wants a system which will reduce the bulk of paperwork, provide ease of work, flexibility, fast record finding, modifying, adding, removing and generating the reports.

**How can the problem be redefined?**

We proposed our perception of the system, in accordance with the problems of existing system by making a full layout of the system on paper. We tallied the problems and needs by existing system and requirements. We were further updating in the layout the basis of redefined the problems. In feasibility study phase we had undergone through various steps, which are described under:

How feasible is the system proposed? This was analyzed by comparing the following

factors with both the existing system and the proposed system.

**Reduce cost**

The cost required in the proposed system is comparatively less to the existing

system.

**Less Effort is required**

Compared to the existing system the proposed system will provide a better working

environment in which there will be ease of work and the effort required will be

comparatively less than the existing system.

**Time**

Also, the time required to generating a report or for doing any other work will be

comparatively very less than in the existing system. Record finding and updating

will take less time than the existing system.

**Labor**

In the existing system the number of staff required for completing the work is

more while the new system will require quite a smaller number of staff.

# SECTION 3: OBJECTIVES

The main objective of this project is to computerize the manual system & reduce the time consumption during recording of patients

In other words, we can say that our project will have the following objectives: -

* Make all the patient information system Computerize
* Reduce time Consumption
* Reduce error scope for patient records
* All system management are automated
* Centralized database management for patient
* easy operations for operator of the system
* No paper work requirement

**FUNCTIONAL FEATURES OF THE SYSTYEM**

* We can always add new records by clicking on the **RECORD** button
* Underneath we will also have another records box that will display records for the Authorities to see or the Patient information
* The **system will have a feature to know the blood type of the patient**
* The **ADD RECORD** button is will be use to input new records, when click, it will open blank rectangle boxes for the user to input new records.
* The **PRINT RECORD** button allows the user to print records from the database, when click upon it will automatically perform it function
* The PMS will be incorporated with a search button to find a patient records if needed

**MODULAR STEPS**

# The steps for the successful project are as follows: -

* We should define problem completely and the goals should be known before our destination.
* In the next step, we should specify inputs and outputs of our interest.
* Then the structure of various database should design which will be used during the programming.
* In the next step, we should specify inputs and outputs of our interest and always provide a way to the user to read back the origin if he/she find any complex problem at any stage.
* We should know the function of each and every program which will leads us to or helps us to read at the specified goal.
* Then we write this individual program which later on join in solving our problem.
* Next steps involve testing of program and corrections – if necessary.
* At last, linking all the programs in a well specified manner and combining in the form of a menu, submenu etc. Will be our defined.
* Out of these defined steps, few of the major steps will respect to Project

**SECTION 4: DATABASE DESIGN**

Database Design is important in any project. We are using the following table to store the information related to **patients**

# 1. PATIENTS

Field Name NULL TYPE

Patient ID Not Null NUMBER (5)

PName VARCHAR (30)

ADRESS VARCHAR (30)

CITY VARCHAR (15)

PIN VARCHAR (6)

STATE VARCHAR (15)

PHONE VARCHAR (15)

MOBILE VARCHAR (13)

EMAIL VARCHAR (30)

SEX VARCHAR (1)

M\_ STATUS VARCHAR (03)

DOB DATE

Date admit DATE

DEPT VARCHAR (30)

# Blood type VARCHAR (3)

# MODULES TO BE USE IN THE PROJECT

# This project willl include the following modules for the development of the project. These are as follows: -

# MAIN FORM

This form is a menu-based form that displays the menu for operation of the application. It includes various options for, **Patient**, **Appointments** and report related option.

# PATIENT FORM

This form provides the option to add, delete, search and delete the information of Patient.

**REPORT FORM**

With the help of this option from menu user of the system can see or take the print out of various reports provided by the system.

**NAME OF REPORTS**

Following are the reports names that are generated by the Project for the patient of the hospital.

1. Details of Patient.
2. Date wise detail of Patient based on date of appointment.
3. Doctor’s report based on the Date of appointment.

**HARDWARE & SOFTWARE REQUIREMENT**

Technologies used:

This project is a web application that will be develop in python backend along with many other supporting technologies.

HTML

**Hardware Interface:**

Client Side:

PC:

A personal computer with the following configuration.

Processor: Pentium IV 2.0 and above.

RAM:

1GB

Server Side:

PC:

A personal computer with the following configuration.

Processor:

Pentium IV 2.0 and above.

RAM:

1 GB

Disk space:

40GB

**Software Interface:**

Client Side:

Web Browser, Windows XP/Vista and above

Server Side:

Apache Server, Windows XP/Vista and above

Data Base Server:

MYSQL

**Communication Interface:**

The system will be accessed over LAN or WAN. For Clients to access application

server the network should be running TCP/IP protocol.

**System Interface:**

Application would be a self-contained system. It will not access data of any other

application nor will other application have access to its data.

**User Interface:**

Application will be accessed through a Microsoft Access Interface. The interface would be viewed best using 1024 x 768 and 800 x 600 pixels resolution setting.

Below is a display of the interface

**Usability:**

The user is facilitated to view and make entries in the forms. Validations are provided in each field to avoid inconsistent or invalid entry in the databases. Reports screen contains text boxes so that reports can be produced.

**Security:**

Application will allow only valid python users to access the system. Access to any

application resource will depend upon user’s designation.

**Maintainability:**

The installation and operation manual of patient management system will be

provided to the user.

**Portability:**

The application is going to be develop in python. It would be portable to other operating system. As the database is made in Mysql.

**Constraints:**

User interface is only in English i.e. no other language option is

available. Limited to Mysql

**Acceptance Criteria:**

The software should meet the functional requirement and perform the functionality effectively and efficiently.

A user-friendly interface with proper menus.

Data transfer should be accurate and within a reasonable amount of time keeping in mind the network traffic.

The system should not allow entry of duplicate key values.

System should have the ability to generate transactional Logs to avoid any accidental loss of data.

**SECTION 5: PROJECT MANAGEMENT GANTT CHART**

**Proposed Milestones:**

Although it’s not possible to calculate the exact time for the development of the

Project, we have made an approximate timeline for the development of our project and

It is as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| Stages of Development | Starting Date | Ending Date | Duration in days |
| Initial Study | 11/11/2020 | 13/11/2020 | 3 days |
| Feasibility Study | 13/11/2020 | 15/11/2020 | 3 days |
| Requirement Analysis | 15/11/2020 | 16/11/2020 | 4 days |
| Requirement Specification | 16/11/2020 | 2/11/2020 | 4 days |
| Interface Design | 22/11/2020 | 24/11/2020 | 3 days |
| Coding | 24/11/2020 | 27/11/2020 | 4 days |
| Testing and Debugging | 27/11/2020 | 28/11/2020 | 2 days |
| Implementation | 28/11/2020 | 30/11/2020 | 2 days |
|  |  | Total | 25 days |

16. Proposed Cost:

1. Development Cost: Not Applicable

2. Maintenance Cost: Not Applicable

17. Acknowledgement:

We are hereby acknowledged that we will abide by the rules and regulations prescribed in the project manual and submit the project within the proposed time.