

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*

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

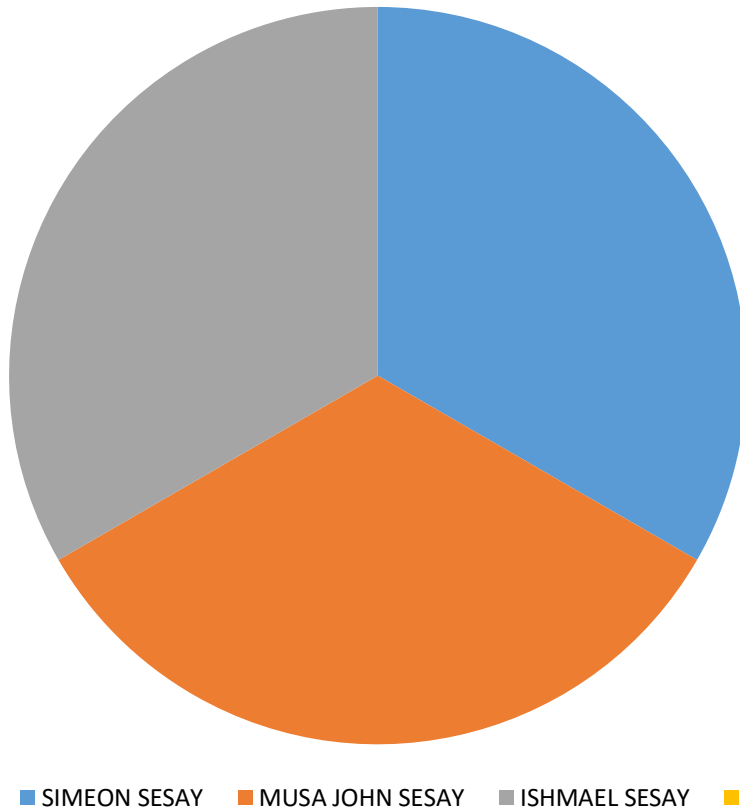
## Contributions Breakdown

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

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**Contribution breakdown Chart**



## SECTION 1: CUSTOMER 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 complaint 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**, **cost**, 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

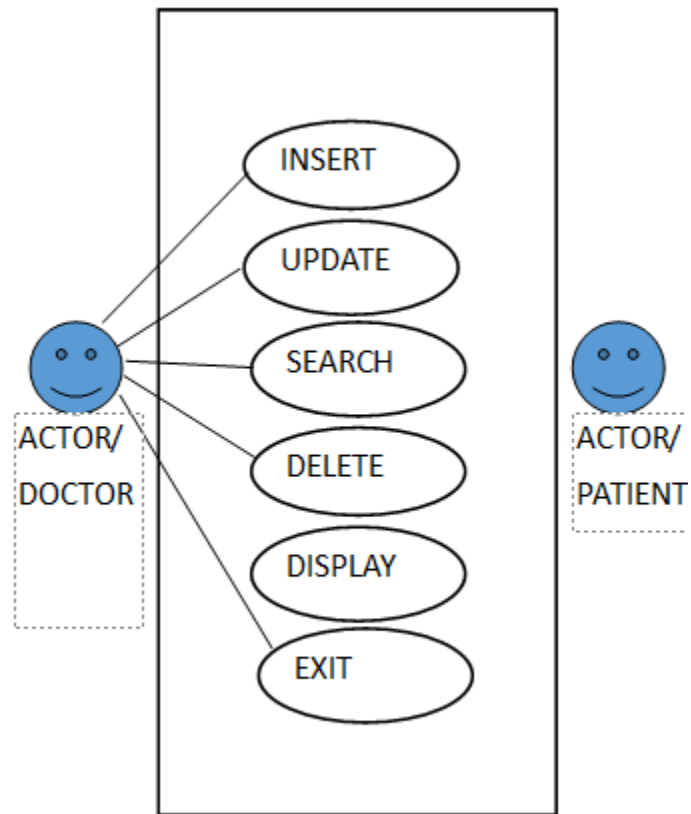
It will contain facilities to generate various types of reports, Appointments records, and Patient records which are required by the management during operations to operate effectively. We have in this document, including the proposed designs of our systems, information on our ability to implement the 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.

## 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

## USE DIAGRAM



### THE INSERT BUTTON

This button is used to add a new patient into the system

### UPDATE BUTTON

This button is used to do modification on the patient record

### SEARCH BUTTON

It is used to search for the information of a patient that is already in the database

### DISPLAY BUTTON

It is used to show the details of all the patient information in the database

### EXIT BUTTON

it is used to close the system



## Traceability matrix

UC-1: INSERT  
UC-2: UPDATE  
UC-3: SEARCH  
UC-4: DELETE  
UC-5: DISPLAY  
UC-6: EXIT

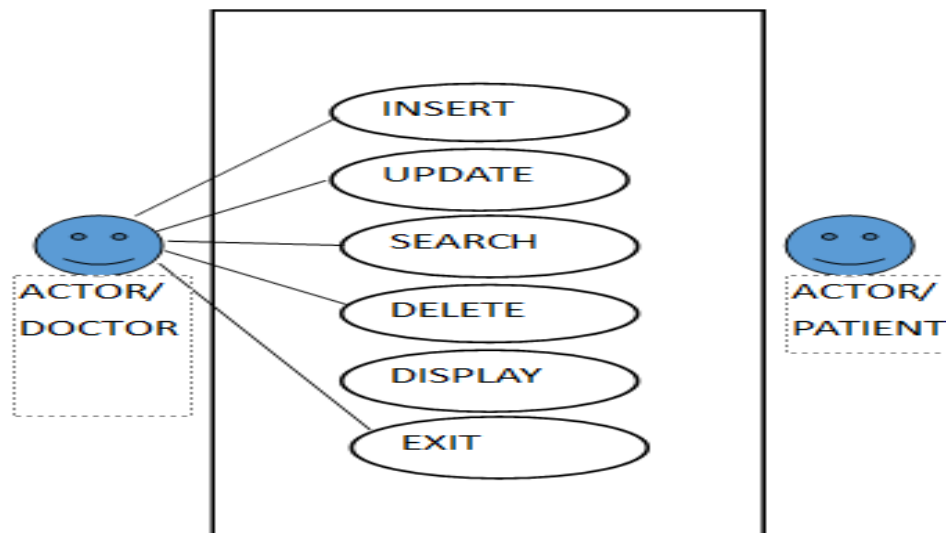
REQ 1: ADD PATIENT DETAILS  
REQ 2: Modification of Patients Details  
REQ 3: Database Records  
REQ4: Discard Information  
REQ5: Database Records  
REQ6: Able to exit

**TRACEABILITY MATRIX**

REQT	PW	UC-1	UC-2	UC-3	UC-4	UC-5	UC-6
REQ-1	4	X					
REQ-2		X	X				
REQ-3	5	X		X			
REQ-4		X		X	X		
REQ-5		X			X	X	
REQ-6		X					X

### Domain analysis

Patient management system is a system that is use to record patient information. The system also helps the doctors to easily find a patient record whenever a patient revisit the hospital, even have the hard copy of the prescription form and the information to be update in the table(record)



### DESIGN PRINCIPLE

We use the single responsibility principle, because all the functions in our software are given just a single responsibility

**Singleton design pattern** is used in creating the design because it says that a single class which is responsible to create an object while making sure that only single object gets created. This class provides a way to access its only object which can be accessed directly without need to instantiate the object of the class.

### 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

Test Phase	Example
<b>Unit test</b>	<ul style="list-style-type: none"><li>▪ Test common control-level navigation through a view. Test any field validation or default logic.</li><li>▪ Invoke methods on an applet.</li></ul>
<b>Module test</b>	<ul style="list-style-type: none"><li>▪ Test common module-level user scenarios (for example, create an account and add an activity).</li><li>▪ Verify correct interaction between two related Siebel components (for example, Workflow Process and Business Service).</li></ul>
<b>Process test</b>	<ul style="list-style-type: none"><li>▪ Test proper support for a business process.</li></ul>
<b>User interface</b>	<ul style="list-style-type: none"><li>▪ Verify that a view has all specified applets, and each applet has specified controls with correct type and layout.</li></ul>
<b>Data entity</b>	<ul style="list-style-type: none"><li>▪ Verify that a data object or control has the specified data fields with correct data types.</li></ul>

### SYSTEM INTEGRATION TESTING

(SIT) is performed to verify the interactions between the modules of a software system. It deals with the verification of the high and low-level software requirements specified in the Software Requirements Specification/Data and the Software Design Document.

## HISTORY OF THE WORK

### 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.

### REFERENCE:

Mr Daniel chaytor's power point lecture note.

Using Google search engine