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

PROJECT TITLE:MURIALDO SCHOOL STUDENT RECORD SYSTEM

PROJECT URL: https://github.com/Alg37/Secondary-Schoo Management-System

GROUP NUMBER 4

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CONTRIBUTIONS BREAKDOWN PAGE

Features	Allieu Kamara (A)	Jacob John (B)	Edmond Kamara (C)	Foday Khan Kanu (D)
Add Student	A	B		
Update Student			C	
View all Students				D
Delete Student	A	B	C	D
Close	A	B		

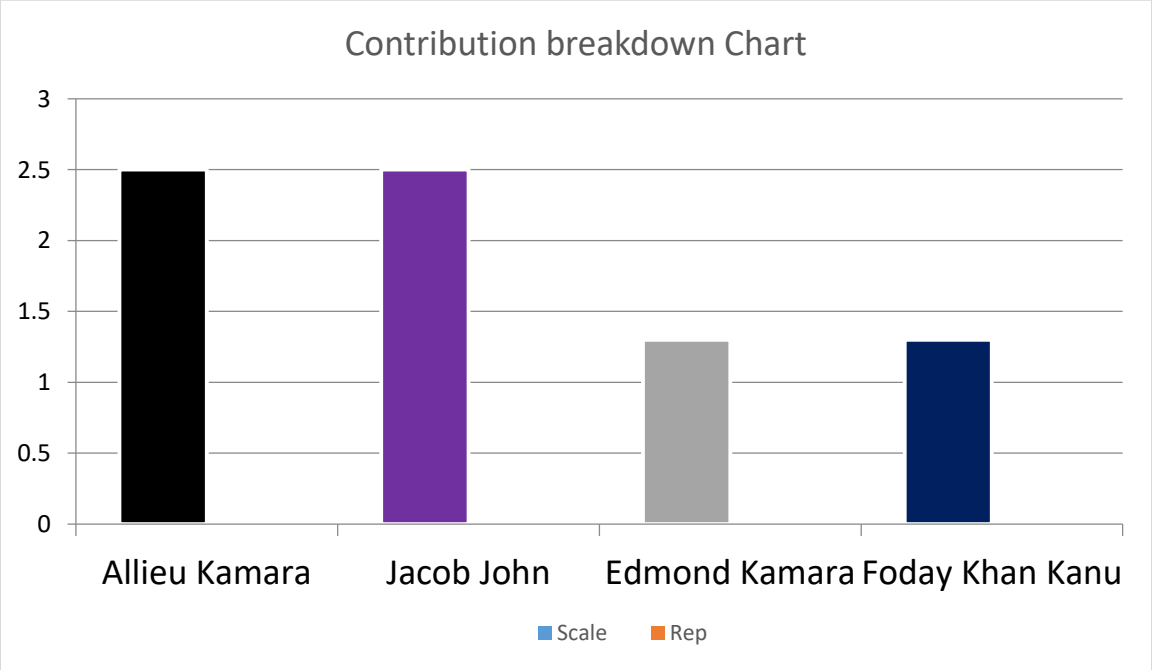


TABLE OF CONTENTS

SECTION1: PROJECT OVERVIEW

Muraldo Secondary School is Located at the northern part of Sierra Leone in a town call Lunsar with over 1000 students registered in the school. The registration process of a student is very laborious and lengthy procedure. It requires a huge number of staff for the registration and managing of student at the school. Admitting new students, assigning students to their various classes and keep track of the regular student attending at the school was done with a file based system or manually.

Also as the ongoing Corona Virus Pandemic, the school has been facing lots of challenges in the registration of the students at the school being that the overcrowding of the students is totally prohibited due to the pandemic. The administration of Muraldo Secondary School Lunsar had to make student come in batch to register and do their administrative process.

All these matters above made the school contacted us to design a school management system.

WHY MURALDO SCHOOL RECORD SYSTEM

A computation of Students records is accurately done and is controlled by parameters that users can change.

Online, Anytime a user can print off student's records. Any records can be accessible anywhere and at any time

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 SMS takes a short time for users to have theirs in the system

Generating Reports – SMS is designed in such a manner that it generates different kinds of reports for any duration

SYSTEM REQUIREMENTS SPECIFICATION

The title of the project is **"Student record system (SRS)".** This project will handle the current problem of the School. SMS has most of the facilities that a modern School requires to computerize its day-to-day running. It will provide facilities to keep the records of **Students**, **Add students**, and **Delete Student** with all their required details. It will contain facilities to generate various types of reports for students which are required by the management during normal school operations to operate the school effectively. The school record system is a very

laborious and lengthy procedure.

It requires a limited staff to perform these operations: adding of students, recording of students Information.

SECTION 2: FEASIBILITY STUDY

What are the user's demonstrable needs?

User needs a solution which will have the all the

- **Showing the List of Student**
- **Add New Student**
- **Searching Student**
- **Deleting a Student**

Above are listed user needs. The user wants a system which will reduce the bulk of paperwork usage, provide ease of work, flexibility, fast record finding, modifying, adding, removing and generating the reports.

SYSTEM DESIGN

System Design is the solution to the creation of the new system. This is the important aspect made up of several steps. The system design will answer the following question:

- Who is using the system?
- Where the system to be use?
- How the system is to be used?

If the project is to be successful, we will need answer to these questions. The answer of these questions is in a schema manner and is known as system design.

A systematic manner will be followed so as to achieve beneficial result at the end. It involves starting with a vague idea and ultimately developing it up into a useful system. The design phase is transition from a user oriented to a document oriented to the programmers.

Software report can be broken into a series of steps starting with the basic ideas and ending with the finished project.

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 in the basis to redefine the problems. In feasibility

study phase we had undergone through various steps, which are described below.

How feasible is the system proposed?

This was analyzed by comparing the following factors with both the existing system and proposed system.

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

Effort: 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 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.

OBJECTIVES

This project is based on the Relational Database Management System (RDBMS) technology; the main objective of this project is to computerize the manual system & reduce the time consumption.

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

- Make all the system Computerize
- Reduce time Consumption
- Reduce error scope
- All system management are automated
- Centralized database management for student in the school
- Easy operations for operator of the system
- No paper work requirement

SECTION 3: PROJECT CATEGORY

This project “muraldo School record System” comes under the Relational Database Management System (RDBMS). This application will be developed with the help of MY SQL for the data base and Python. This Combination come highly Supple, Configurable and stable system that features many unique options and can be easily enhanced with custom options depending on the school’s feature.

FUNCTIONAL FEATURES

- We can always add new records by clicking on the add record button
- The frame boxes are where we enter different information of employees in the system.
- Under we will have a records box which will display records for the school management to see and be able to review.
- The toolbar has an option of yes or no bottom that will be used to enable and disable the toolbar.
- There is add new record button that will be used to input new record. When clicked, it will open the option to create new record.
- There will also be a button (generate), the button when clicked on will generate the report of the student in the system. For example if the user wants to generate a record for JSS I, when the generate button is clicked, it will automatically generate the detail of JSS I.
- There will also be a print button that will allow the user to print records from the database, when click upon it will automatically take the user to the print option.

FUNCTIONALITIES/MODULE

The steps for the successful completion of the project are as follows: -

- Our group would define the problem completely and the goals would be known.
- In the next step, we would specify the input and output of the system.
- Also we would structure database design which will be for the system.
- If the user find any difficulties using the system, a facilities will be provided to go back.
- We would know the function of each and every program which will leads us to or helps us to reach at the specified goal.
- We would write an individual program which will be used to solve the problem.
- The next steps will involve the 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.

SECTION 4: DATA FLOW DIAGRAMS (DFD'S)

We will use DFD diagram as a way of expressing the system in a graphical form. A DFD, also known as Bubble Chart, has a purpose of clarifying system requirement and identifying major transformation that will become the programs in the system design.

PROCESSING OF MURALDO SCHOOL RECORD SYSTEM

1. The square defines a source or destination of system data
2. The arrow identifies data flow or data in motion. It is a pipeline through which information flow.
3. The circle represents a process transforms in coming data flow into outgoing data flow, the registration or admission process.
4. An open rectangle is a data store or data at rest or a temporary rest repository of data.

The data flow diagram describes what data flow (logical) rather than they are processed, so it does not depend on hardware, software and data structure or file organization.

A school has to deal with three external entities for the management system: -

- The School Administration
- The School Registrar
- Pupils/Students

The above process shows that school administration can directly gather information of the pupils/students from the pupils/student database.

SECTION 5: DATABASE DESIGN

Database Designs are very important in every project. We are using the following table to store the information related to staff of school

1. School Administrator

Field Name	NULL	TYPE
AdminID	Not Null	NUMBER (5)
EMPNAME		VARCHAR (30)
ADRESS		VARCHAR (30)
CITY		VARCHAR (15)
PIN		VARCHAR (6)
DISTRICT		VARCHAR (15)
PHONE		VARCHAR (15)
MOBILE		VARCHAR (13)
EMAIL		VARCHAR (30)
SEX		VARCHAR (1)
M_ STATUS		VARCHAR (03)
DOB		DATE
DOJ		DATE
DEPT		VARCHAR (30)
NATURE_OF_JOB		VARCHAR (10)
BASIC_ PAY		ARCHAR (10, 2)

2. REGISTRATION/ADMISSION

Field Name	NULL	Type
REGNO	NOT NULL	NUMBER (5)
FNAME		VARCHAR (25)
LNAME		VARCHAR (25)
DOB		DATE
DOR		DATE
ADDRESS		VARCHAR (30)
CITY		VARCHAR (15)
DISTRICT		VARCHAR (15)
PHONE		VARCHAR (15)

3. STUDENT/PUPIL DATA

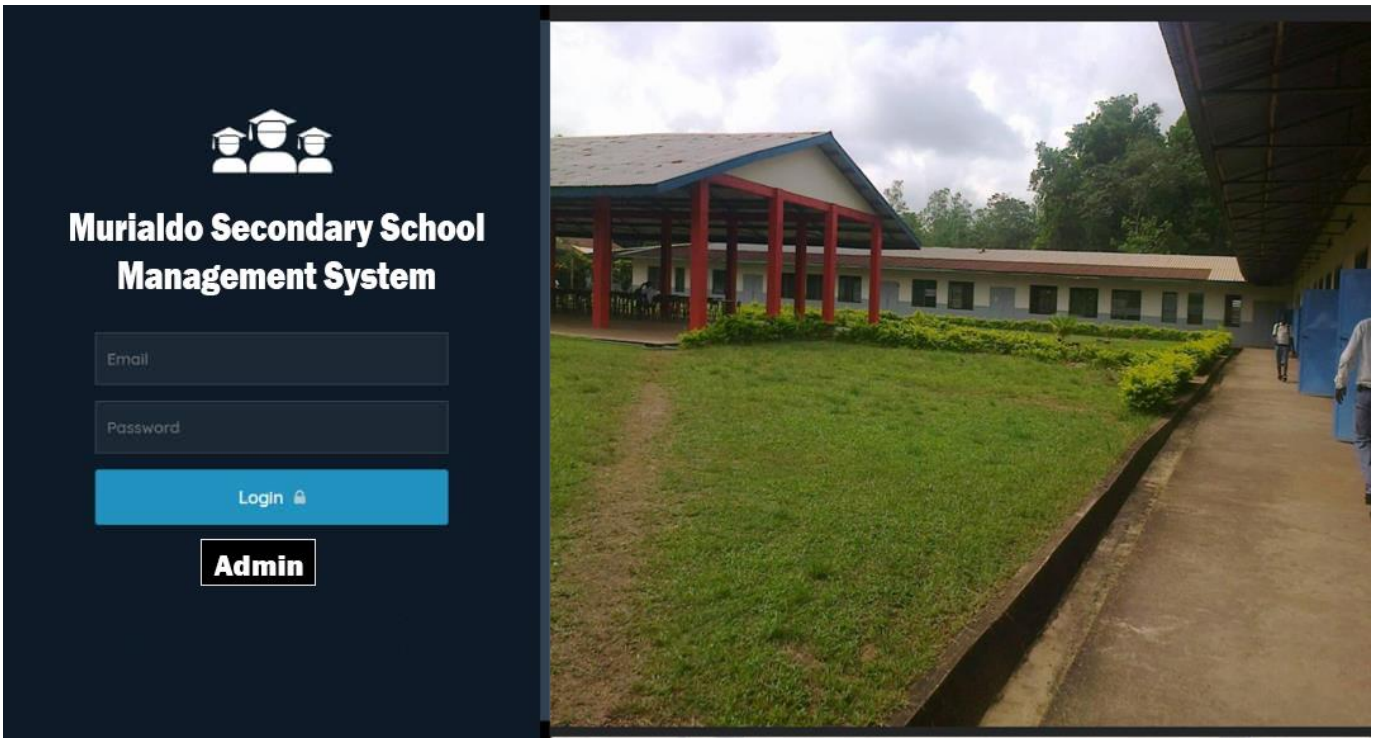
Field Name	NULL	Type
STUDENTID	NOT NULL	NUMBER (5)
FNAME		VARCHAR (25)
LNAME		VARCHAR (25)
DOB		DATE
ADDRESS		VARCHAR (30)
DISTRICT		VARCHAR (15)
PHONE		VARCHAR (15)

SECTION 6: MODULES TO BE USE IN THE PROJECT

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

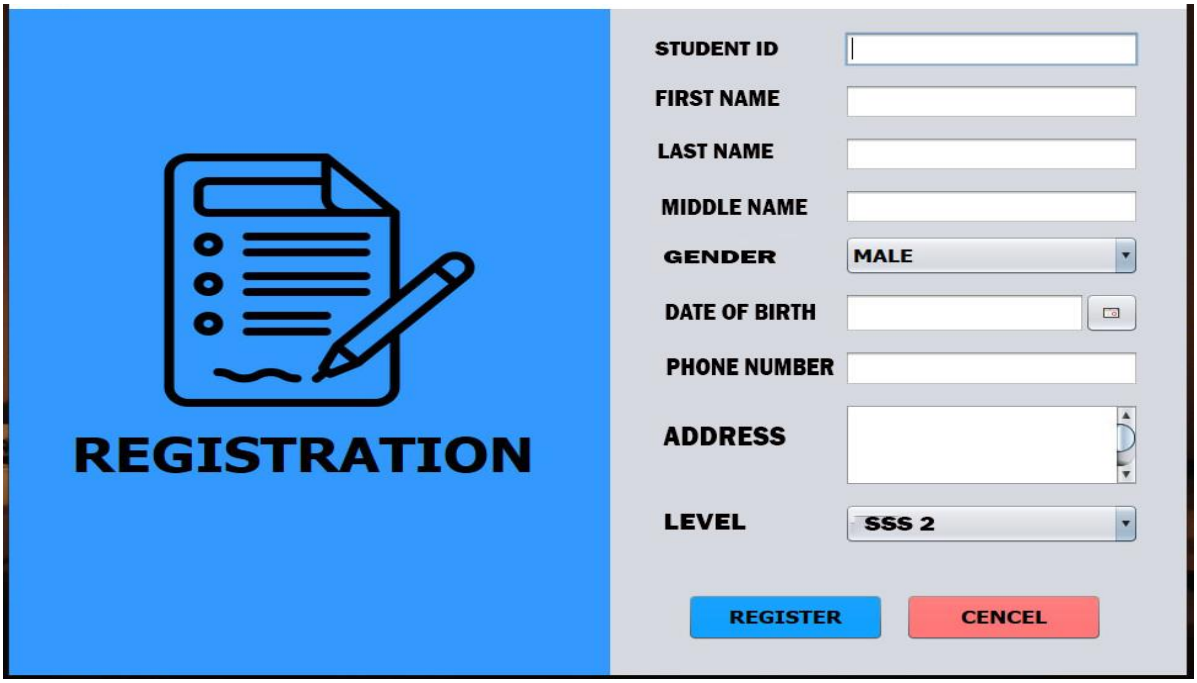
1. LOGIN FORM

This will display the login page/screen of the data base, where the school administrator will input his/her login details so he/she can operate the application.



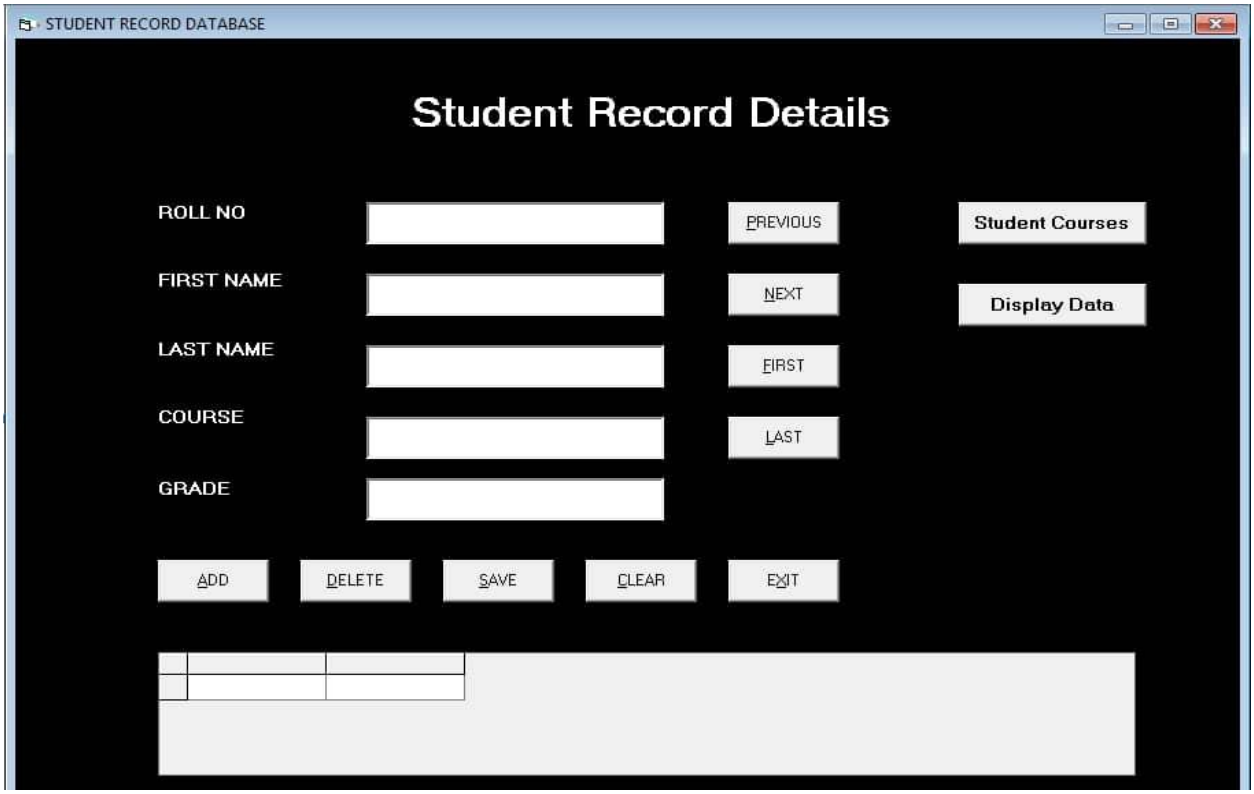
2. REGISTRATION FORM

This is the form where the registration is done by the administrator.



3. STUDENT RECORD DETAILS

This form provides the option to add, modify, delete or find the information of a student in the school's management system.



SECTION 7: FEATURES SCOPE OF THE PROJECT

HARDWARE & SOFTWARE REQUIREMENT

Technologies used:

This project is a database application that is developed in mysql and python.

Python

MYSQL database system

Hardware Interface:

PC: A personal computer with the following configuration.

Processor: Pentium IV and above.

RAM: 2Gb and above

Hard disk: 80GB and above

Software Interface:

MYSQL database package

Web Browser

Windows 7 and above

Data Base Server:

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 MYSQL Database management system (DBMS). The interface would be viewed best using 1024 x 768 and 800 x 600 pixels resolution setting.

Usability:

The user is facilitated to view and make entries in the forms. Modify/edit and delete student detail when deem fit.

Security:

Access to any application resource will depend upon user's designation. Security is based upon the individual user ID and Password.

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 would be accurate and within a reasonable amount of time. The system would not allow entry of duplicate key values.

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	11/09/2020	18/09/2020	4 days
Feasibility Study	21/09/2020	30/09/2020	9 days
Requirement Analysis	4/10/2020	14/10/2020	10 days
Requirement Specification	16/10/2020	21/10/2020	5 days
Interface Design	23/10/2020	5/11/2020	13 days
Coding	6/11/2020	10/11/2020	4 days
Testing and Debugging	11/11/2020	13/11/2020	2 days
Implementation	14/11/2020	16/11/2020	2 days
		Total	49 Days

References

1. https://www.entab.in/school-management-software.html
2. Ahmad Al-hayek, Faisal hijazi and Jameel Abu Mualiq (may 2016), E-School – School Management System, University of Palestine Faculty of Information Technology.
3. www.w3school.com
4. www.wikipedia.org