# ARYAN SCHOOL OF ENGINEERING AND MANAGEMENT

(Affiliated to Purbanchal University)

Mid Baneshwor, Kathmandu



[Subject Code: BIT379CO]

Project report on:

# "COLLEGE MASTER"

# **Submitted by**

Roshan Shrestha [362598]

Sagar Dhakal [362600]

Sapana Shahi Thakuri [

Aayush Pokharel [362596]

# **Submitted to**

Department of Computer and Information Technology

Sep, 2022

# "COLLEGE MASTER"

# **Submitted by**

Roshan Shrestha

Sagar Dhakal

Sapana Shahi Thakuri

Aayush Pokharel

## **Submitted to**

Department of Computer and Information Technology

Aryan School of Engineering and Management

Mid Baneshwor, Kathmandu

Sep, 2022

# **ABSTRACT**

The main objective of college master is to digitalize all functionalities of a college. Using this system, you can manage all college management work like add students, add courses, add faculties, view profile, make chat, add and view results etc.

Using this college management system, you can view or update data and information about students and faculties easily. There is different login interface for admin, student and faculty. Admin manages all data about students and faculties.

Keywords: student, faculty, college

# **ACKNOWLEDGEMENT**

We would like to express my special thanks of gratitude to our teacher Mr. Ujjwal Prajapati as our project supervisor. Also, we would like to thank Aryan school of Engineering and Management for providing valuable project resources.

Secondly, we would also like to thank our parents and friends who helped us lot in making this project within the limited time frame easily.

# TABLE OF CONTENTS

ABSTRACT	i
ACKNOWLEDGEMENT	ii
TABLE OF CONTENTS	iii
LIST OF FIGURES	iv
LIST OF TABLES	v
CHAPTER 1: INTRODUCTION	1
1.1: Background	1
1.2: Problem statement	3
1.3: Objectives	3
1.4: Application	4
1.5: Scope	4
1.6: Features	5
1.7: Feasibility analysis	5
1.7.1: Economical feasibility	6
1.7.2: Technical feasibility	6
1.7.3: Operational feasibility	7
1.8: System requirements	8
1.8.1: Hardware requirements	8
1.8.2: Software requirements	8
CHAPTER 2: LITERATURE REVIEW	9
CHAPTER 3: METHODOLOGY	13
3.1: Algorithm	13
3.2: Flowchart	14
3.3: ER-Diagram	15
3.4: DFD	16
3.5: Use Case Diagram	18
CHAPTER 4: RESULT AND DISCUSSION	19
4.1: Output	19
4.2: Limitations	20
4.3: Work schedule	21
CHAPTER 5: CONCLUSION AND FUTURE ENHANCEMENT	22
5.1: Conclusion	22
5.2: Future Enhancement	22
REFERENCES	23
ADDENIDIY	24

# LIST OF FIGURES

Fig 3.1: Flowchart	14
Fig 3.2: ER Diagram	15
Fig 3.3: 0-Level dfd	16
Fig 3.4: 1_Level DFD	17
Fig 3.5: Use case diagram	18
Fig 1: Login page	24
Fig 2: Admin page	25
Fig 3: Faculty page	26
Fig 4: Student page	27
Fig 5: Admin profile	28

# LIST OF TABLES

Tab 4.1: Gantt chart	21

#### **CHAPTER 1: INTRODUCTION**

### 1.1: Background

MIS is Defined as an integrated system of man and machine for providing information to support the operations, the management and the decision making functioning the organization. It is the framework of policies, processes and procedures used by an organization (irrespective of the field) to ensure that it can fulfill all the tasks required to achieve its objectives. MIS provides information that is needed to manage organizations efficiently and effectively.

College Master is a college management system that helps educational institutions to manage their academic, administrative, attendance, and other data very efficiently. It is the system that helps to digitalize the manual recording system of the college. College master has three different interfaces for login: admin login, student login and faculty login. All the activities like adding and managing courses, students, subjects, faculties, assigning subjects, generating marksheet and attendance reports are performed by admin. Also, admin is able to search students and faculty members. Students are able to view classmates, subjects, faculties, assigned subject, marksheet, attendance report, etc. Also, they Can chat with classmates, faculties, admin. At the faculty side, faculty members are able to view students, subjects, co-faculties, assigned subject, enter marks, mark attendance and chat with students and admin. [1]

The College Management system has been developed to override the problems prevailing in the practicing manual system. This system is supported to eliminate and, in some case, reduce the hardship faced by the existing system.

This system reduced as much as possible to avoid errors while entering data. The College master is an automated version of manual Student Management System. It can handle all details about a students and faculties. The details include college details, subjects, student details, academic details, exam details etc. In case of manual system, they need a lot of time, manpower etc. Here all work is computerized. It can do within a few minutes. This

system is managed by an admin. It is the job of the administrator to insert update and monitor the whole

#### **1.2: Problem statement**

Today in colleges, student and faculty details are entered manually. The student details in separate records are tedious task. Referring to all these records and updating is needed. There is a chance for more manual errors.

The problems are listed below:

- Previous college management system has traditional and poor interface
- Previously manual recording system are used by colleges which may contains many errors

## 1.3: Objectives

A college master is a system designed to help colleges and higher education institutes to manage their data and activities efficiently. The main objectives of our system are given as:

- To digitalize college management system.
- To manage all the functionalities of the college efficiently.

# 1.4: Application

The main application areas of College Master are given below:

- College
- School
- University
- Any educational institutes

# **1.5: Scope**

This project deals with the various functioning in college management process. The main idea is to implement a proper process to system.

College Master has wider scope. Some of them are:

- Registration of students
- Exam result
- Attendance report
- Search student
- Chatting

#### 1.6: Features

College Master have various features. Some of them are listed below:

- Chatting
- Database recording system
- Marksheet and result report
- Attendance report
- Searching of student information

#### 1.7: Feasibility analysis

In a feasibility study, a proposed plan or project is evaluated for its practicality. As part of a feasibility study, a project is evaluated in order to determine whether it will be successful. As the name implies, a feasibility analysis is used to determine the viability of an idea, such as ensuring a project is legally and technically feasible as well as economically justifiable. It tells us whether a project is worth the investment—in some cases, a project may not be feasible. There can be many reasons for this, including requiring too many resources, which not only prevents those resources from performing other tasks but also may cost more than an organization would earn back by taking on a project that isn't profitable.

A well-designed study should offer a historical background of the business or project, such as a description of the product or service, accounting statements, details of operations and management, marketing research and policies, financial data, legal requirements, and tax obligations. Generally, such studies precede technical development and project implementation.[2]

#### **Understanding A Feasibility Study**

Project management is the process of planning, organizing, and managing resources to bring about the successful completion of specific project goals and objectives. A feasibility study is a preliminary exploration of a proposed project or undertaking to determine its merits and viability. A feasibility study aims to provide an independent assessment that examines all aspects of a proposed project, including technical, economic, financial, legal, and environmental considerations. This information then helps decision-makers determine whether or not to proceed with the project.

The feasibility study results can also be used to create a realistic project plan and budget. Without a feasibility study, it cannot be easy to know whether or not a proposed project is worth pursuing. We studied about following types of feasibility.

#### 1.7.1: Economical feasibility

Economic feasibility determines whether there are sufficient benefits in creating to make the cost acceptable, or is the cost of the system too high. This signifies cost benefit analysis and saving.

College Master is economically feasible because it is cheaper, suitable and free of cost. As well as it does not require any additional hardware or software.

#### 1.7.2: Technical feasibility

Technical feasibility determines whether the work for the project can be done with the existing equipment and software technology. It is concerned with specifying equipment and software that will satisfy the user requirement

College Master is technically feasible because it is developed by using most common technologies available in today's world. It can run on any machines supporting Windows. This system is practical and we need this type of system.

#### 1.7.3: Operational feasibility

Operational feasibility is the measure of how well a proposed system solves the problems. College Master is operationally feasible. It is easy to handle and is not needed skill person. Also, it is not time consuming. Our system is able to run using simple computers with operating system windows.

# 1.8: System requirements

# 1.8.1: Hardware requirements

- RAM-1GB or above
- Harddisk-20GB or above
- Processor-i3

# 1.8.2: Software requirements

- OS-Windows 7 or above
- Xampp Control Panel

#### **CHAPTER 2: LITERATURE REVIEW**

College Master provides a simple interface for maintaining information of student and faculty. It can be used by educational institutes or colleges to maintain the records of students and teachers easily. The creation and management of accurate, up- to - date information regarding a students' academic career is critically important in the colleges. Student information system deals with all kind of student details, academic related reports, college details, course details and other resource related details too.

#### **Existing system:**

College Management System is developed for a college for maintaining information associated to varied daily activities within the college. The CMS is utilized to keep details of various departments in the college, varied courses offered by the college, student admission details, faculty details, exam marks details, internal marks details, etc.

By building this information system, the College Management System software creating reports that are helpful for student, faculty, and for management within the administration.

#### Problems faced in the existing system

Presently to maintain data about different aspects, the school or college is using manual process i.e., using ledgers and books. Now the school or the college needs a computerized or advanced environment where it is simple for storing data regarding student information, their attendance, faculty details, course details, marks reports, and schedules and so on.

Using current manual flow, it is the hectic(busy) job in maintaining data and moreover it is time taken or consuming. There is a total wastage of stationary products and more human resources and manpower effort is required. After we have computerized and automatic environment it replaces all these issues.

9

#### **About Digital Nepal**

School Management System, a delightful product of Digital Nepal aims to bridge the information gaps that may exist between the School Management, Teachers, Students and the Parents. This software can be a sanctification for the effective management of the overall operations of your educational institution. This enthralling software can be used for updating the information of the students, mining, storing and instant access, centralizing and controlling the activities of the whole school. With the use of this software, you can control and mine the overall information of the students and report them to their parents and also store that information for the future references.

This software is user friendly, highly integrated, elastic and offers innumerable operative tools which can be used in the administration for its effective controlling and functioning. This software is not meant to fulfill the needs of administration only, it is efficacious to each and every department of your institution. We cover fine details of the school like class, subject, section, fees collection, admission process, examinations, hostel, inventory, staff salary, transportation, parent portal, student portal, founder portal and teacher portal. It also has section for student's attendance, homework and many other elements. All the mentioned functions can easily be controlled by the automated element present in the software.[3]

#### **About Veda**

It is a complete School and College MIS and Digital Learning Platform. It is a app for students and parents to find all the information and learn right from the mobile devices. It is available on both iOS and Android.

It is all in one solution for parents to find all the information about their children, school, and crucial information like billing, designed for even the parents with no technical knowledge. It helps students find information and carry out learning from their mobile devices from online classes, assignments to result, and more. Veda handles every aspect of schools, so you can get back to doing what matters the most – helping students\_and building their future.

#### **Veda Features**

It is a complete school management system with mobile apps (iOS and Android) for parents and Teachers.

#### **Process Automation**

 Veda helps with your everyday time-consuming processes to make them efficient and easier.

#### Online Learning

• Veda is the best-in-class platform for online learning.

#### **Efficient Communication**

 Veda makes communication between teachers, students, schools, and parents efficient, easier, and cheaper.

#### Student Management

 Veda makes managing students easier and helps schools by tracking and analyzing regularly updated data.

# Student Performance Analysis

• Veda makes analyzing performance of students easier and more efficient.[4]

# **CHAPTER 3: METHODOLOGY**

# 3.1: Algorithm

#### For admin side

- Step 1: Start
- Step 2: If correct user name and password
- Step 2.1: Go to home page
- Step 2.1.1: If Add courses
- Step 2.1.2: Else if Add subjects
- Step 2.1.3: Else if Add Faculties
- Step 2.1.4: Else if Assign Subject
- Step 2.1.5: Else if Marksheet Report
- Step 2.1.6: Else if Attendance Report
- Step 2.1.7: Else if Chat
- Step 2.1.8: Else Log out
- Step 3: Else invalid username and password
- Step 3.1: Go to step2
- Step 4: Stop

# 3.2: Flowchart

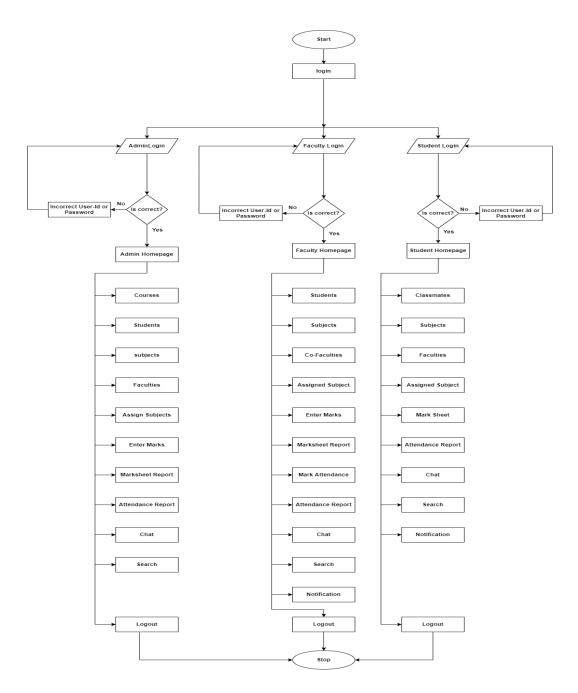


Fig 3.1: Flowchart

# 3.3: ER-Diagram

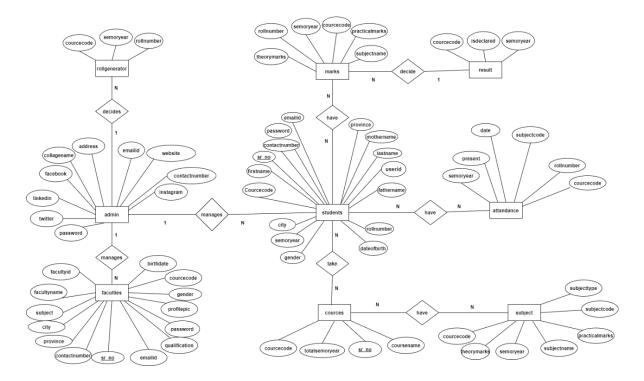


Fig 3.2: ER Diagram

# 3.4: **DFD**

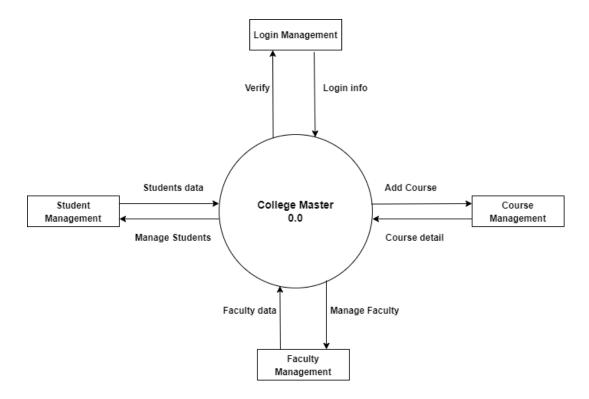


Fig 3.3: 0-Level dfd

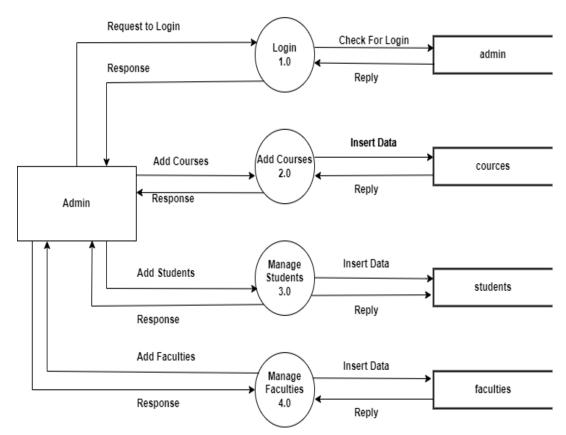


Fig 3.4: 1\_Level DFD 1

# 3.5: Use Case Diagram



Fig 3.5: Use case diagram

## **CHAPTER 4: RESULT AND DISCUSSION**

# **4.1: Output**

By using College Master, we are able to manage data regarding students, faculties and college. In this system we have developed three login interfaces. They are admin login, student login, and faculty login. This login system prevents unauthorized access to the system. In this system admin and faculties can add theoretical and practical marks and generate marksheet report.

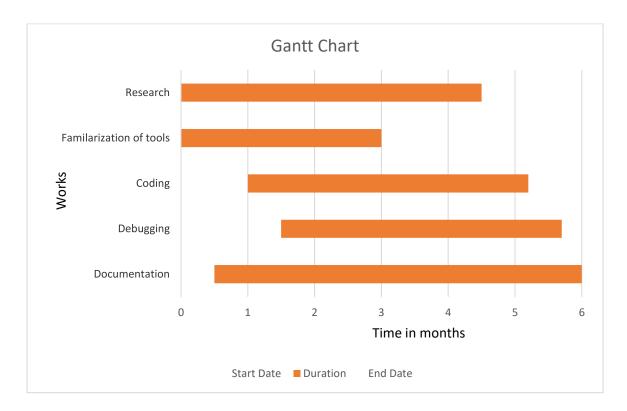
Attendance facility is also available in our system. Attendance can be marked by both admin and faculties and can generate attendance report. Chat is another output of our system where student admin and faculties are able to chat with each other. There is also searching features where student of different faculties can be searched.

# **4.2: Limitations**

There are some limitations that can be enhanced in future. Some limitations of our system are given as:

- No option for forgot password
- No video and audio calling system in chat

## 4.3: Work schedule



Tab 4.1: Gantt chart

This is the Gantt chart of our project. We developed our system by dividing into different tasks such as research, familiarization of tools, coding, debugging, and documentation etc. The development time period of our system is 6 months.

# CHAPTER 5: CONCLUSION AND FUTURE ENHANCEMENT

#### **5.1: Conclusion**

The project entitled as College Master is the system that deals with the issues related to a particular college or institution. The application provides appropriate information according to the chosen service. The project is designed to keep student and teacher and other data digitally.

Deployment of our application will certainly help the college to reduce unnecessary wastage of time in personally going to each department for some information. Awareness and right information about any college is essential for both the development of student as well as faculty. So, this serves the right purpose in achieving the desired requirements of both the communities.

#### 5.2: Future Enhancement

College Master is complete solution but some features can be enhanced in future. We can add the option for forgot password. We can also add video and audio calling system for making chat efficient.

# **REFERENCES**

- 1. Raza, M. H. (2020, Apr 01). *College management system*. Retrieved from slideshare: <a href="https://www.slideshare.net/">https://www.slideshare.net/</a>
- 2. *feasibility study*. (n.d.). Retrieved from simplilearn: https://www.simplilearn.com 3.(2014). Retrieved from edigitalnepal: https://edigitalnepal.com/
- 4. Home page. (2015). Retrieved from Veda App: https://veda-app.com

# **APPENDIX**



Fig 1: Login page

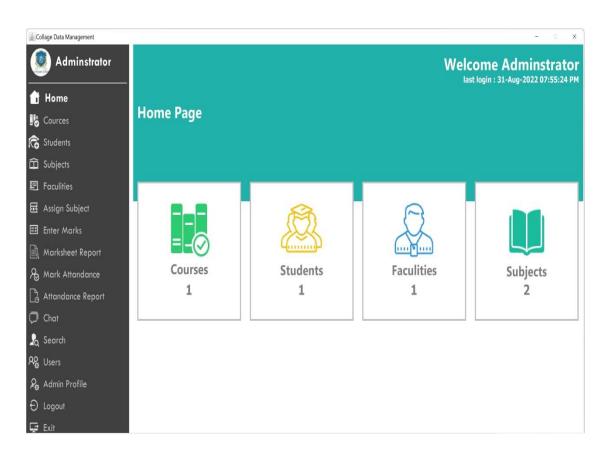


Fig 2: Admin page

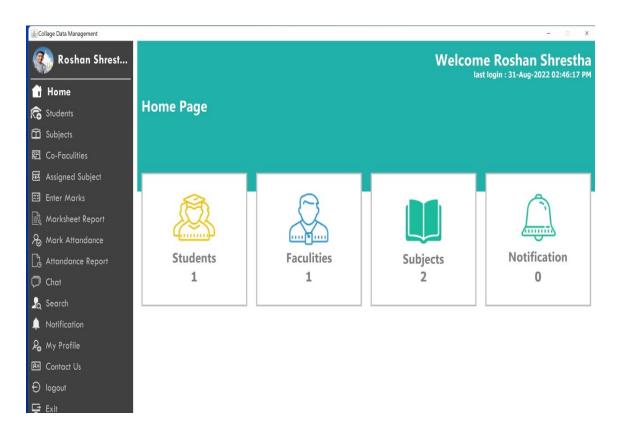


Fig 3: Faculty page

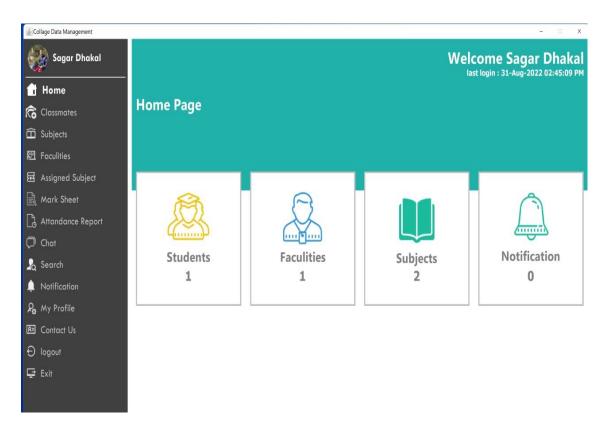


Fig 4: Student page

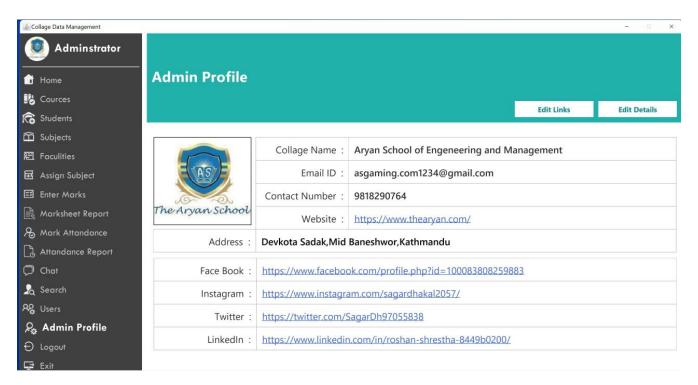


Fig 5: Admin profile