CONSULTANCY STUDENT RECORD SYSTEM

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A Summer Project Report Submitted to
Faculty of Management, Tribhuvan University
in partial fulfillment of the requirements for the degree of
Bachelor of Information Management

Paknajol, Kathmandu
August, 2022

STUDENT DECLARATION

This is to certify that I have completed the Summer Project entitled "**Consultancy Student Record System**" under the guidance of "**Mr. Dipak Malla**" in partial fulfillment of the requirements for the degree of Bachelor of Information Management at Faculty of Management, Tribhuvan University. This is my original work and I have not submitted it earlier elsewhere.

Signature:
Name: Kapil Chhatkuli
Date: August, 2022

CERTIFICATE FROM THE SUPERVISOR

This is to certify that the summer project entitled "**Consultancy Student Record System**" is an academic work done by "**Kapil Chhatkuli**" submitted in the partial fulfillment of the requirements for the degree of **Bachelor of Information Management (BIM)** at Faculty of Management, Tribhuvan University under my guidance and supervision. To the best of my knowledge, the information presented by him/her in the summer project report has not been submitted earlier.

_____

Signature
Mr. Dipak Malla
Supervisor
August, 2022

ACKNOWLEDGEMENT

Apart from the efforts of myself, the success of any project depends largely on the encouragement and guidelines of many others. I take this opportunity to express my gratitude to the people who have been instrumental in the successful completion of this project. I would like to show my greatest appreciation to "**Mr. Dipak Malla"**. I can't say thank you enough for his tremendous support and help. I feel motivated and encouraged every time I attend his meeting. Without his encouragement and guidance this project would not have materialized. The guidance and support received from all the members who contributed and who are contributing to this project, was vital for the success of the project. I am grateful for their constant support and help.

Kapil Chhatkuli

EXECUTIVE SUMMARY

This is an attempt to know how the theories can be applied to practical situation. This summer project report has been written about Consultancy Student Record System on the organization named “Meet point Education Consultancy Pvt. Ltd”.

In the first part of the project report, the background of the study has been written which shows about the project details in short. The introduction of organization i.e. with their current working system is mentioned. The general objectives of the member administration system project is to partial fulfillment of the requirements for the degree of BIM (Bachelor Of Information Management) program as well as to provide a system with enough information about the organization and specific objective is to make member administration system. The data and information are obtained from interview and questionnaire with the staff and owner through field visit. The tool for making report is MS Word, Visual paradigm and for developing project Visual Studio Code, XAMPP, MYSQL is used.

In the second part of the report, analysis of task and activities of current existing system has been written. The current status of the existing system is analysis. The problems of the organization is analyzed. So, requirement specification is specified into functional and non-functional requirement which shows the functionality of the organization. Feasibility study is done as technical, operational, economic and technological feasibility. The system is analyzed and show in different UML diagrams like for data modeling, ERD, class diagram are presented likewise use case diagram show the functions of the system actors, activity diagram, sequence diagram are shown the system models.

The project report contains the discussion about the project and report is presented. Conclusion of the report is presented. At last screen shots of the system is presented with questionnaires.

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ABBREVIATIONS

BIM	Bachelor of Information Management
CSS	Cascading Style Sheet
HTML	Hyper Text Mark-up Language
NFR	Non-Functional Requirements
TU	Tribhuvan University
UI	User Interface
UML	Unified Modelling Language
XAMPP	Cross-Platform (X), Apache (A), MySQL (M), PHP (P)

CHAPTER 1: INTRODUCTION

1.1 Background

The report is prepared on Summer Project entitled "Consultancy Student Record System for Meet point Education Consultancy". Consultancy Student Record System is an application which refers to Consultancy systems which are generally small or medium in size. It is used by Admin and student. Admin will manage the Consultancy using a computerized system where he/she can record various transactions likes add student, edit student, delete student, add teacher, edit teacher, delete teacher, add course, edit course, delete course etc. Student will view their profile and about consultancy. With this computerized system there will be no loss of student, teacher and course record or which generally happens when a non-computerized system is used. This summer project has enabled to study a unit of organization, analyze the problems and create a software application as a solution to the problems. It reflects the integration of the learning over the five semesters of study in this report.

1.2 Introduction of the organization

The Meet point Education Consultancy Pvt. Ltd. has a long standing reputation of being one of the most comprehensive study abroad consultants in Nepal It is situated at downtown Putalisadak, way to Dilibazar, Kathmandu head office is at Putalisadak, Kathmandu, Nepal. This consultancy have some class such as TOEFL, IELTS, SAT, GRE, PTE and GMAT. This consultancy has been sending student for many countries for study since 2009. Students are sent to country like Australia, America, Canada, Japan and other European nations. This organization has single minded focus; to guide students to the best possible institutions to enable them to build their future.

1.3 Current Situation of the organization

Meet point is an organization and one of the best consultancy in Dilibazar, Nepal. It is smoothly running its operations. The students flow is also good. Currently, the basic services provided by this consultancy are:

- Student, Teacher, Course details are written manually in the registration book.
- Facilities like TOEFL, IELTS, SAT, GRE, PTE and GMAT service are provided.
- All the works are paper work and the information are stored in registers.

1.4 Issues/ Problems of the report

This report covers only some of the problems in services given by the organization based on some limited aspects and problems. The issues or problems are as follows:

- Since the summer project should be done with other academic subjects, sufficient time cannot be given.
- The time to complete the report and project is within 2 months so there is time limitation.

1.5 Objective of the report

The objectives of the study can be studied under two sub headings:

1.5.1 General Objectives

The general objectives of this project is to partial fulfillment of the requirements for the degree of BIM (Bachelor in information management) program as well as to enable students to study an organization or a unit of any organization, analyze the working process, figure out the existing problem and present a suitable solution in the form of a system or software.

1.5.2 Specific Objective

- To develop system where administrator can keep record of their student, teacher and course.
- To help administrator update, edit and delete all records.
- To help students views their own profile.

1.6 Methodology/Procedure adopted for writing the report

1.6.1 Project Framework

The framework of this project can be described as below:

- An interview was prepared to know the way of recording the detailed information about Consultancy from admin's side.
- The information collected from interview was analyzed and UML diagrams are made.
- Conclusion were drawn from the analysis of the diagrams.

The entire report is divided into three sections: Introduction, Analysis and Conclusion.

1. **Introduction**

In this section, the background of the project is given, introduction of the organization is included, what types of tools are used for preparing report as well as software system. The report is prepared by both primary and secondary data.

2. **Analysis**

Currently existing system is analyzed and new effective system as a solution for the problem is analyzed. The analysis of possible solution is presented in different types of diagrams like use case, activity diagram, class diagram, sequence diagram etc.

3. **Conclusion**

It is concluded that instead of following the old manual technique for recording the member, they can use new system, that I have been developing is much more effective and time efficient.

1.6.2 Data and Information

Many methods are available, for the completion of this project the following method has been used for collecting data and information.

1.6.2.1 Primary Data

For the collection of the primary data, questionnaire method was used. The primary data generally includes the information about services provided by the organization. The primary data collected are:

- Direct interview with Staff and owner of the organization

  I asked the owner about the problem that they are facing in providing information about the organization. They said that if they have an application with easy entry of records about members it would be easy to view and edit records.
- Questionnaire

  I have asked about the current situation of consultancy in recording records and their input in general.

1.6.2.1 Secondary Data

Secondary data is the data that have been already collected by and readily available from other sources. Here, secondary data was collected using following methods.

- Content available in consultancy social media pages.

1.6.3 Tools used

- Analysis and Design tools

For the graphical representation of our project, some of the designing and transforming tool are used such as visual paradigm (for UML diagrams), MS Word (for report) and MS PowerPoint (for presentation), visual studio code for coding and XAMPP (for database server).

- Implementation tools

The requirement analysis and the design of the application and be transformed into implemented form by using various tools. Here we're going to use:

- Programming Language: PHP
- Front-end: HTML CSS JavaScript
- Database: MySQL
- Server implementation: XAMPP
- IDE: visual studio code

1.6.4 Technique of project report analysis

Waterfall model is used for making this project. Waterfall model is one of the most simple and oldest project management techniques in project management. It is also referred as Software Design Life Cycle (SDLC) that focuses on making a solid plan and effective execution.

CHAPTER 2: TASKS AND ACTIVITIES PERFORMED

2.1 Analysis of tasks, activities, problems, issues

2.1.1 Analysis of tasks and activities

Currently in the organization that I have surveyed recording member (student, teacher and course) data are done manually. For a new member to be registered he/she has wait for the receptionist to be available, then the receptionist asks for registration for form fill-up. Often that information can be photocopied or just documents are used to prove a registration. He/she has to wait for long time for registration as it is done manually i.e. by hand with pen and paper. If a member ask his/her information, receptionist must manually search for records in register and can take long time searching a record in register. Other is for registration, the manual form and register is kept to keep all the records of the memberS. The receptionist has to check the form if the form is misplaced there comes another problem. The reservation is also taken from phone call.

2.1.2 Analysis of problems and issues

Problem and issues that I have identified by the interview and survey are:

- There is no proper data storing facilities and viewing in proper manner.
- The registers and form can be unfortunately misplaced.

2.2 Requirement Specification

Consultancy Student Record System includes both functional and non-functional requirements.

2.2.1 Functional Requirements:

Functional Requirement includes actual functionality of an application that consists the students, teachers and course.

- Login: Existing students or admin can login to further use the system.
- About Us: Information about consultancy.
- Manage student: Admin will add new student, edit student, delete student and display all student information.
- Manage Teacher: Admin will add new teacher, edit teacher, delete teacher and display all teacher information.
- Manage Course: Admin will add new course, edit course, delete course and display all course information.
- Contact Us: Contact information about consultancy.
- Profile: Student will be view their profile.
- Logout: It takes admin or students out of the system.

2.2.1.1 Use Case Diagram

Use case diagram is one of the UML diagram. Use case diagram shows the accessibility of the admin and the features. The functional requirements can be represented through use case diagram. The use-case diagram for the system is shown in the figure below:

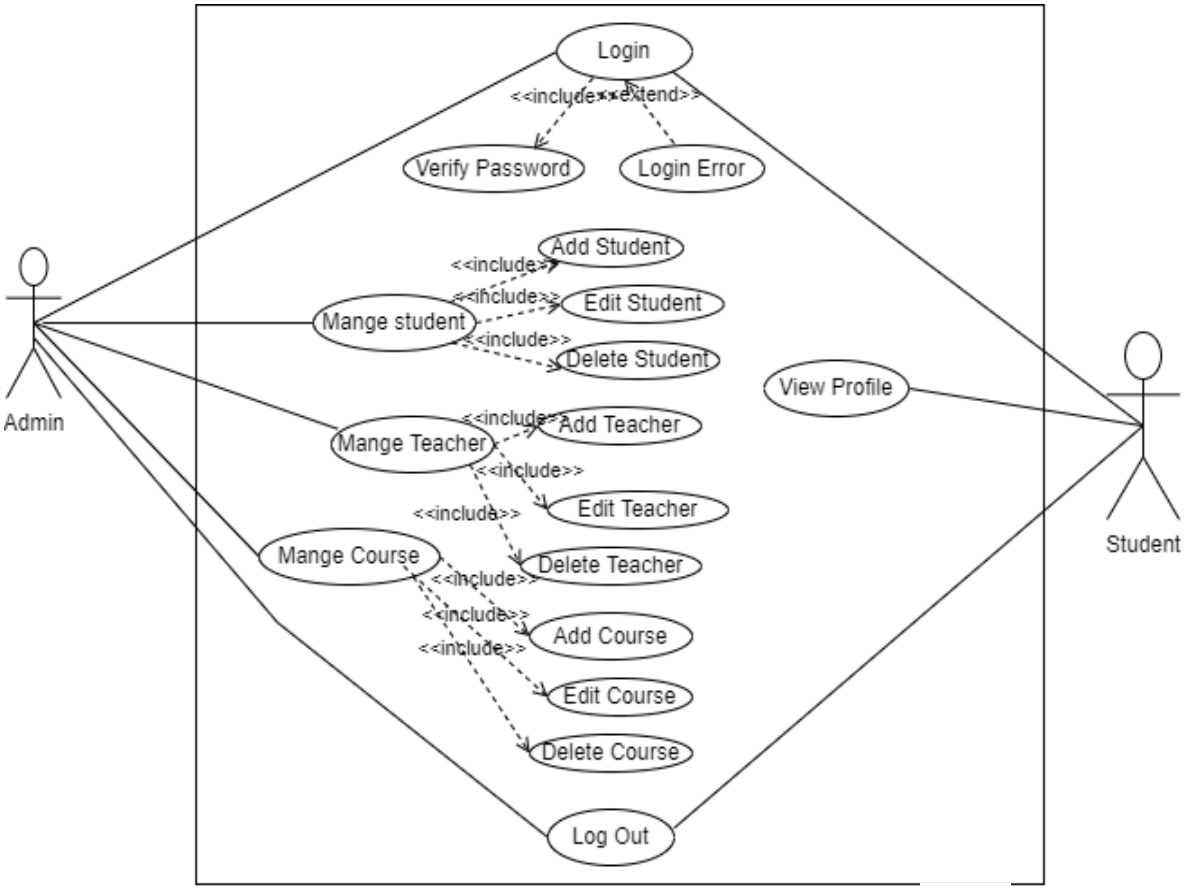

Figure: 2.1 Use Case Diagram

Table 1: Use case Diagram description

Actors	System Admin and student
Description	For instance, admin login in to the system then he/she can add a new student, teacher and course with detail information, edit and delete the record, student view his/her information.
Data	Data includes students, teacher's, course's information.
Stimulus	Command can be issued by all the actors. For example, the admin can add new student, teacher and course itself.
Response	For the stimulus instance provided above, the system may respond as update in the table, adding the provided data and letting the admin view the updated table.

2.2.2 Non-functional Requirements:

NFR often apply to the system as a whole and not the individual features. NFR is so critical than functional requirements that if these are not met, a system may go useless. Therefore, the NFR of this system can be listed as:

- Security: Users' personal details are secure in the system.
- Reliability: The failure rate of database is very low. Also, there is no possibility of redundant data.
- Maintainable: Admin can easily maintain the system from time to time.
- Portability: The system can run on browsers.

2.3 Feasibility Study

This analysis is used in this project to validate assumptions, constraints, decisions, approaches or business cases. There are many types of feasibility analysis made for this project. It is confirmed that strategies, plans and designs used in this project makes it possible for smooth run and use of the system. Conducting a feasibility study is always beneficial to the project as it gives us a clear picture of the proposed project. The goal is to determine whether the project should go ahead, be redesigned, or else abandoned altogether.

2.3.1 Technical Feasibility

The system can support all the system requirements. It is technically possible for the system to run on browsers. Since it is web-based application, we can host it in web server and user can easily access it from anywhere using internet.

2.3.2 Operational Feasibility

Operational feasibility refers to the measure of solving problems with the help of a new proposed system. It helps in taking advantage of the opportunities and fulfills the requirements as identified during the development of the project. There is simple GUI, understandable by any non-technical user. Users do not have to be confused about where they are going on the site. The operation is quite feasible. This saves up users' time. It generally refers to the feasibility of deploying and operating any project and this system is operationally feasible too.

2.3.3 Economical Feasibility

This system is economically feasible for the users. It is economically feasible to carry out this project because the overall cost to develop this system is also very low. Generally, it states whether a system is within the financial constraints or not and this system is proven to be economically feasible.

2.4 System Analysis

Systems analysis is a problem-solving technique that decomposes a system into its component pieces for the purpose of the studying how well those component parts work and interact to accomplish their purpose.

2.4.1 Data Modeling

Data modeling in software engineering is the process of creating a data model for an information system by applying formal data modeling techniques.

2.4.1.1 Class Diagram

Here, the class diagram describes the structure of a system by showing the system's classes, their attributes, operations (or methods), and the relationships among objects. The class diagram of this system can be represented as below:

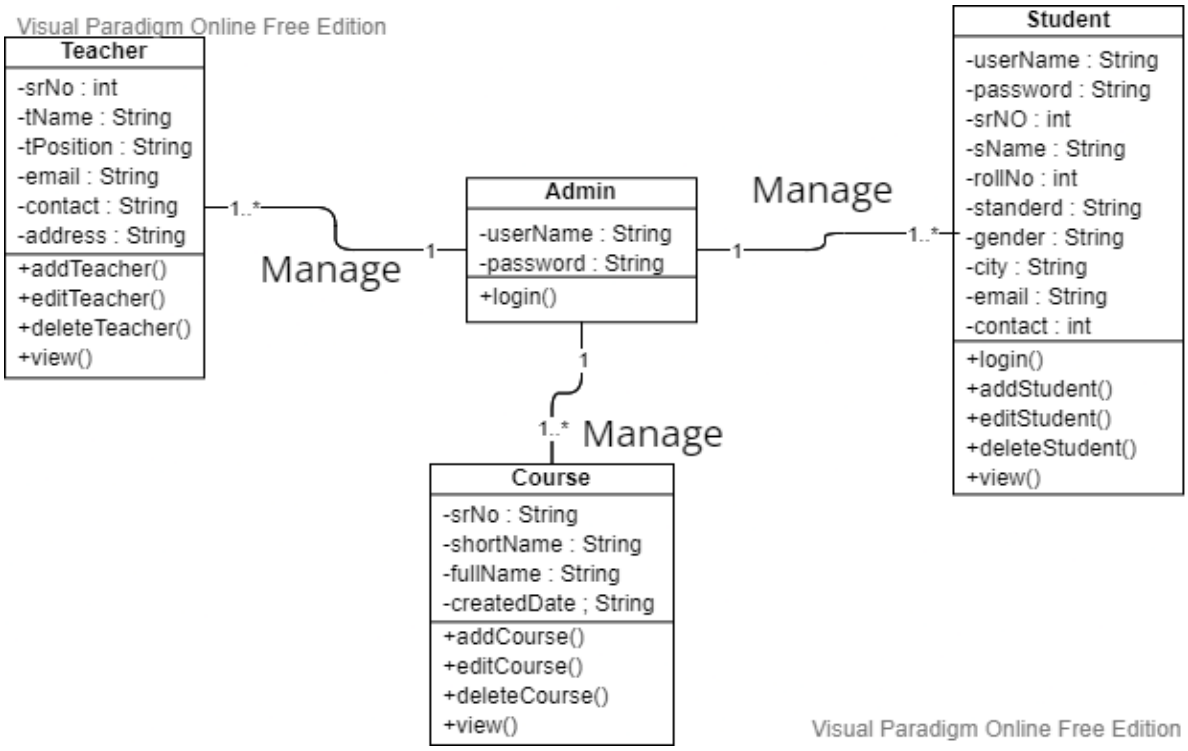

Figure: 2.2 Class Diagram

Table 2: Class Diagram description

Class Diagram Description
In below class diagram, there are various classes: Admin, Student, Course, Teacher. These classes, corresponding attributes and methods are used to describe the static structure of the system. Also, various types of relations exist among the classes.

2.4.2 Process Modelings

Process models may include activities that are part of the software process, software products, e.g. diagrams, architectural descriptions, source code, user documentation, and the roles of people involved in software engineering, Software Process Models.

2.4.2.1 Sequence Modeling

There is two user in the system i.e. admin. Admin first login into a system then register an new system or update records or view records student also login and view own profile. Sequence diagram of admin login and student login is shown below:

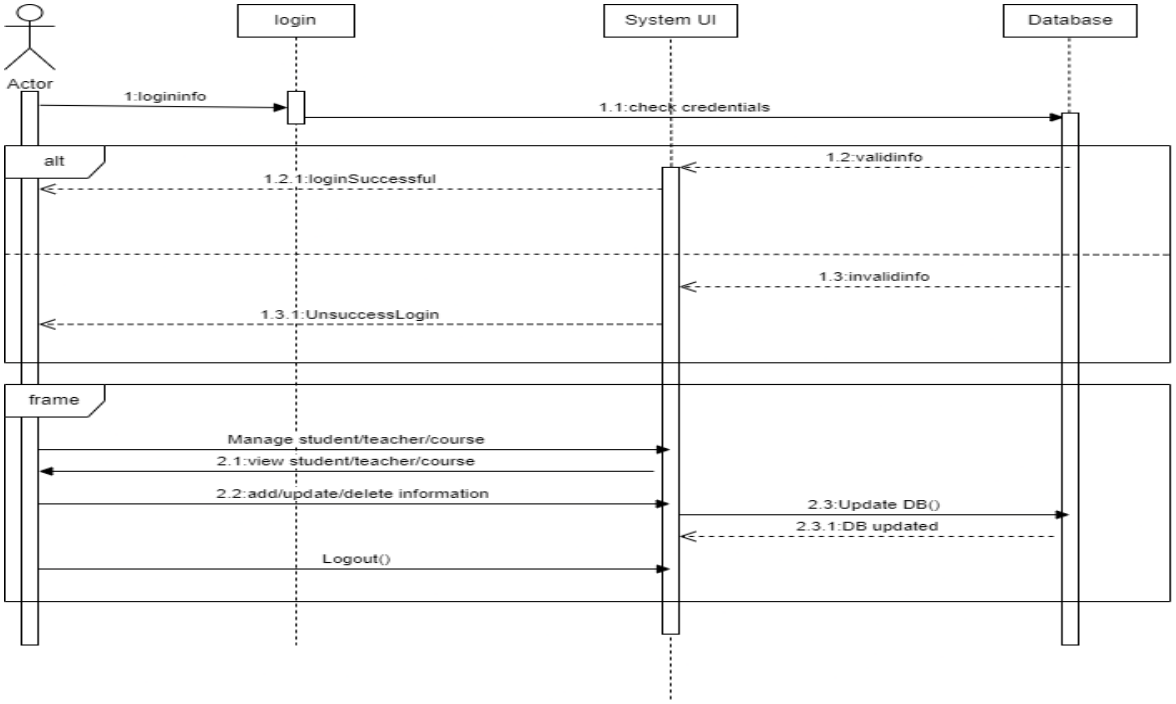

Figure: 2.3 Sequence Diagram

2.4.2.2 Activity Diagram

In the figure below Activity diagram shows an advanced version of flow chart that modeling the flow from one activity to another activity.

In the following activity diagram, it shows the process of admin login into system and then adding a member (student, teacher, course), or editing or deleting a record. The activity diagram for this system is as follows:

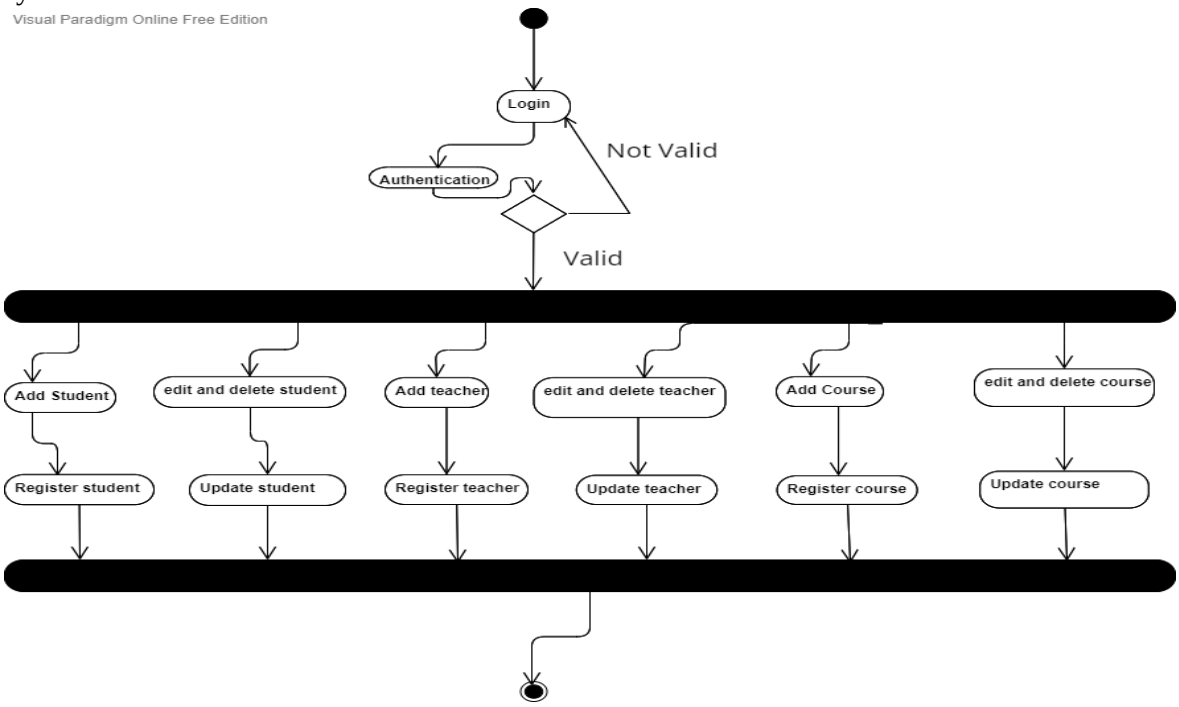

Figure: 2.4 Activity Diagram

2.4.2.3 Entity Relationship Diagram

An Entity–relationship model (ER model) describes the structure of a database with the help of a diagram, which is known as Entity Relationship Diagram (ER Diagram). An ER model is a design or blueprint of a database that can later be implemented as a database. An ERD is a conceptual and representational model of data used to represent the entity framework infrastructure. The elements of an ERD are: Entities, Relationships and Attributes

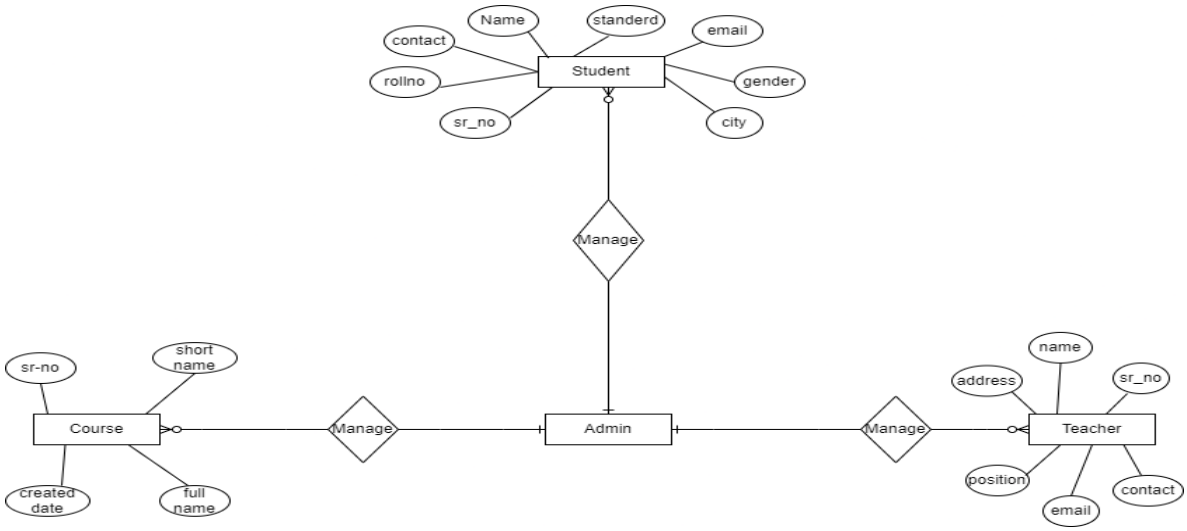

Figure: 2.5 ER-Diagram

2.5 System Design

System design is the process of designing the elements of a system such as the architecture, modules and components, the different interfaces of those components and the data that goes through that system.

2.5.1 UI Design /System Architecture

User interface (UI) design is the systematic way of making interfaces in software or computerized devices with a focus on looks or style. The main aim is to create designs that users will find easy to use and pleasurable. I tried to design the UI that is easy to interact with, for the user and also it helps in the completion of the task with accuracy and efficiency.

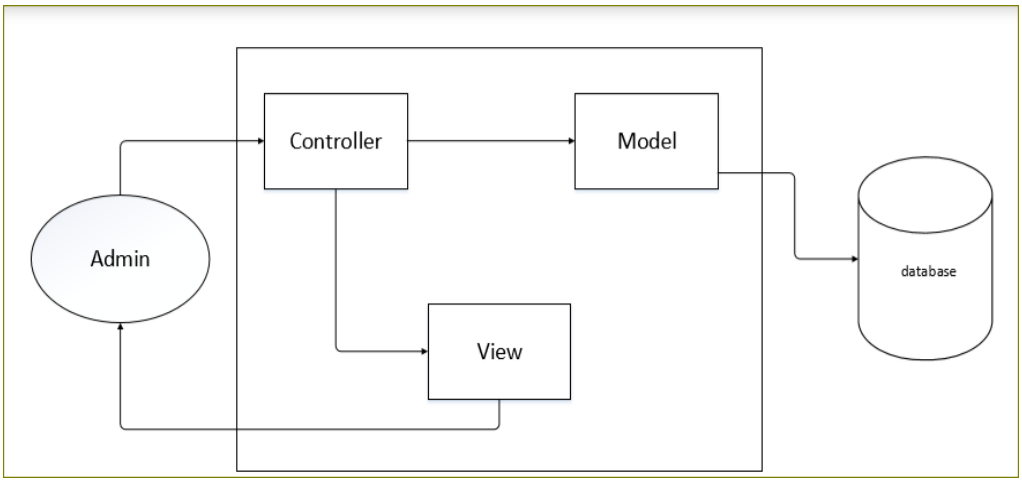

Figure: 2.6 System Architecture

This software has following sub-components:
Admin: They are the operator of the system.
View: This component includes all the GUI components which are visible to the user. The user interacts to the system through this component.
Controller: This component is responsible for converting the input given by user to the appropriate command for the model or view. For example, defines what to do when user clicks the button.
Model: This component represents the data structure of the system. It defines how the data are stored in the database.
Database: It is the storage for the system. It stores all the information about the members.

2.6 Implementation

Since the project is built upon the academic purpose, system can be implemented as partial testing as well. The system is built as a prototype so it can be directly implemented into the organization just for convenience of certain activity.

Implementation also termed as development phase of the software is an important stage in the software development process. For development of this software many tools were used. I've used visual studio code and for connecting to the server XAMPP is used. Database was created and implemented through the browser itself. The software is developed using the PHP.

2.7 Testing

A test case is a document, which has a set of test data, preconditions, expected results and post conditions, developed for a particular test scenario in order to verify compliance against a specific requirement. Some of the test case of the system that are generated are shown below:

Project Name: Consultancy Student Record System

Module Name: Login Form

Date of Creation:7/22/2022

Date of Review:7/30/2022

Table 3: Testing Table

Testcase Id	**Test Scenario**	**Test Case**	**Pre-Condition**
TC_login_1	To test if appropriate message is displayed when admin login without appropriate Email Address and Password	Enter Email Address and Password	Need a valid Email Address and Password to login
Test Steps	**Test Data**	**Expected Result**	**Actual Result**
1. Enter Email Address 2. Enter Password	<valid Email Address> <valid Password>	Successful login	Admin in Dashboard

Testcase Id	Test Scenario	Test Case	Pre-Condition
TC_login_2	To test if appropriate message is displayed when admin login without appropriate Email Address and Password	Enter valid Email Address and Password	Need a valid Email Address and Password to login
Test Steps	**Test Data**	**Expected Result**	**Actual Result**
1. Enter Email Address 2. Enter Password	<valid Email Address> <invalid Password>	A message "Username Or Password Wrong" is shown	Admin in login page

2.8 System Requirement

2.8.1 Software requirement

- XAMPP installed and running.
- Web Browser: Google Chrome, Internet Explorer (ver. 8 or later), Mozilla Firefox, Safari (Mac).

2.8.2 Hardware requirement

- Processor**:** Intel
- Memory: 2 GB minimum

2.9 Findings

First of all, the problems were found out and analyzed. The possible solutions were analyzed and few ideas were even implemented. As a solution to the problems, this software is designed and developed. The findings are problems, solutions, and ways to turn solution ideas into real time solution that is, this system and the system features.

CHAPTER 3: DISCUSSION AND CONCLUSION

3.1 Discussion

The system is prepared by the primary and secondary data. In primary data, field visit and survey are done. Interview and Questionnaire with the Managing Director and owner is done to collect information about the consultancy, their existing system and problem associated with the existing system. So, to overcome the problems member record system is being developed. The system will be beneficial for the admin as it is time efficient and all the information is kept in the database. The data about the members (student, teacher and course) can be retrieved easily.

During this summer project, following data and information were discussed:

- Current situation of the organization
- Advantages of using this software
- How this software can be used for efficiency in work

3.2 Conclusion

The system is having some benefits to admin and members too. The registration system is a faster way of working compared to the manual booking system in the organization. The member records system helps the admin to keep the record digitally and provides efficiency recording and managing members of the organization.

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APPENDICES

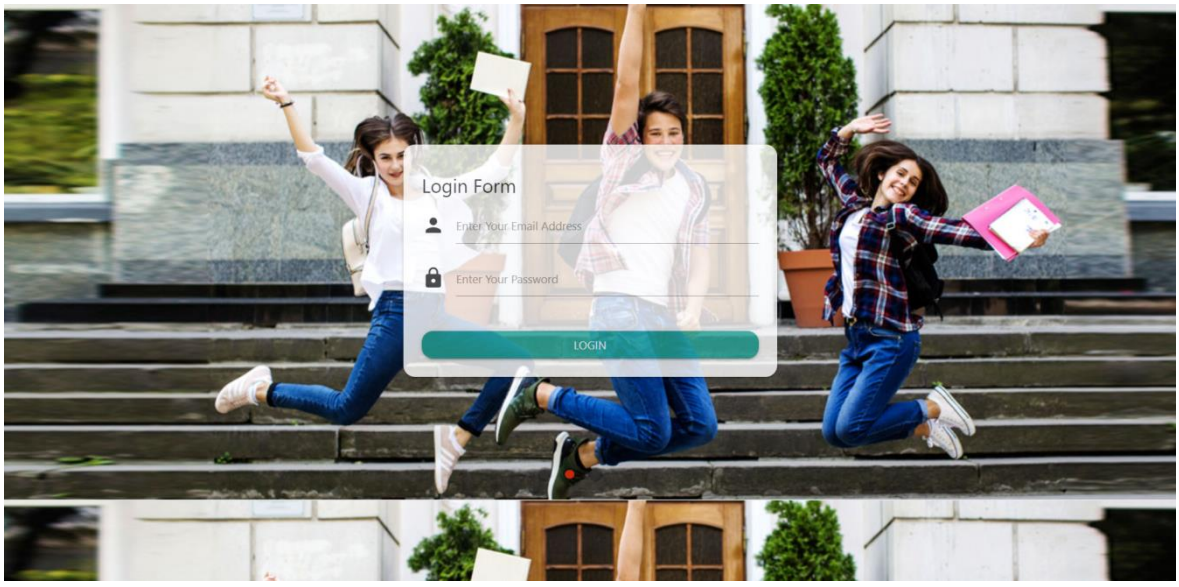
Appendix 1: Questionnaire

1. What is name of your organization?
2. Who will be your main software user?
3. What are the required data?
4. What is the goal associated with end product?
5. What problem will be solved by software?
6. What are the most important features that are important to you?
7. What device will this software be running in (minimum device requirement)?
8. What type of user will be using this software?
9. What are the courses available?
10. How many students visit the consultancy in regular basis?

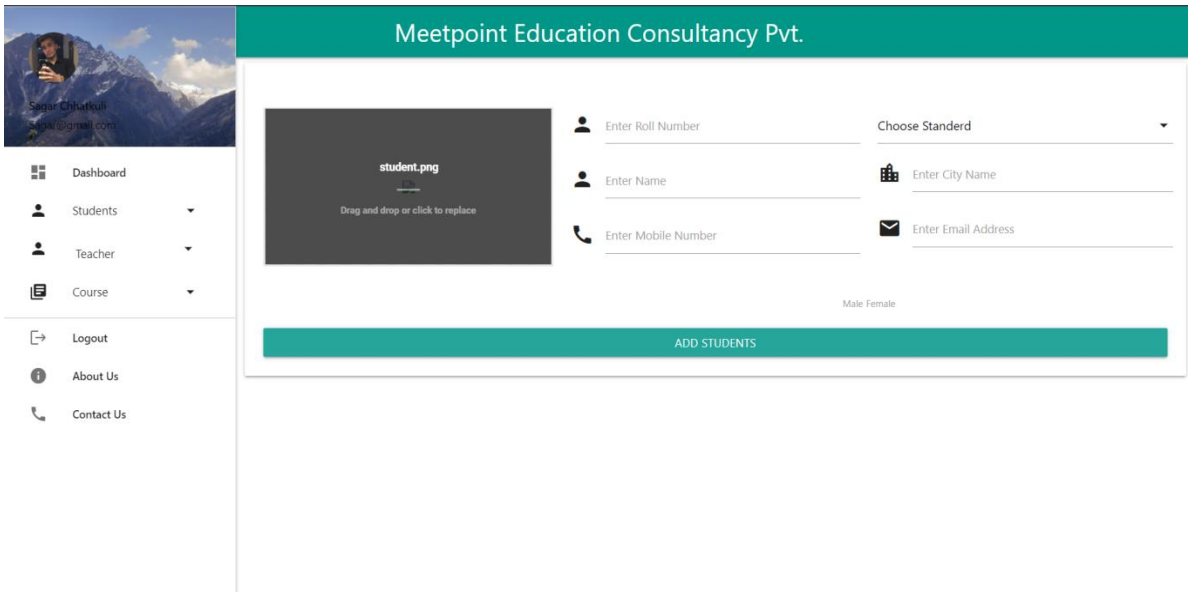
Appendix 2: Screenshots

Home Page

Login Page



Dashboard



All Student