

MINI PROJECT INITIAL REPORT ON TUITION CENTRE MANAGEMENT SYSTEM

IN THE PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE AWARD OF THE DEGREE IN

**BACHELOR OF COMPUTER APPLICATIONS
OF
MAHATMA GANDHI UNIVERSITY
KERALA**

Submitted by

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ROLL NO:200139



DEPARTMENT OF COMPUTER APPLICATION

(2022-2023)

**M.E.S COLLEGE MARAMPALLY
ALUVA -7**

M E S COLLEGE, MARAMPALLY

ALUVA-7



DEPARTMENT OF COMPUTER APPLICATIONS

Certificate

This is to certify that the report entitled
TUITION CENTRE MANAGEMENT SYSTEM

Has been submitted by

.....

.....

In the partial fulfillment of the award of the degree in

BACHELOR OF COMPUTER APPLICATION

IN

MAHATMA GANDHI UNIVERSITY

During the academic year 2022-2023

Roll No:

Project Guide

Head of the Department

Submitted for the examination held on.....

Examiners

1.

2.

MES COLLEGE,MARAMPALLY MARAMPALLY, ALUVA-7.

DEPARTMENT OF COMPUTER APPLICATIONS

PROFORMA FOR APPROVAL OF B.C.A PROJECT REPORT (2022-2023)

1. Roll Number :
2. Name of the Student :
3. Title of the Project :
.....
4. Name and address of the firm :
.....
.....
- Phone Number :
- Name of the Guide
(firm/ Organization) :
5. Software used in the Project :
.....
6. Date of submission :

Signature of the Student

Signature of the Guide
(firm/organization)

Signature of staff incharge

Suggestion for reformulating the project if any:

Signature of internal guide with date

ACKNOWLEDGEMENT

I thank God almighty for giving the favour to complete this project to extend my knowledge and capabilities.

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KHADEEJA BEEVI C.N

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SYSTEM ANALYSIS AND DESIGN

1. IDENTIFICATION OF NEED

1.1. INTRODUCTION

Fed up with struggling with a system, which seems to add to your workload, which doesn't work the way your school does? Do you want a scalable computerized system with plenty of timesaving features that help to get jobs done accurately and quickly? Do you want professional-looking reports and correspondence?Then look at School Management System.

The appearance of your student records says a lot about the quality of your institute. Other educators and registrars make judgments based on student records that can permanently affect a student's life. SMS capabilities include the basics such as transcripts, report cards, attendance, and as well as many other specialized capabilities, including parental access to real time student grades on the Internet. This means that not only administrators but also parents, teachers, and students have access to real-time data. With traditional reporting methods parents may not find out how their student is performing in school until the end of the quarter or semester -- usually too late to correct a problem situation. This system allows parents to know how their student is doing on a continual basis by using the internet. This system can even send electronic progress reports to parents via email on a weekly, monthly, or even daily basis.

You operate a quality program—NOW you can be sure your records communicate that quality. Here realizes the need for an effective school management system and that is exactly what we are striving for! The Tuition Centre Management System will replace the paper-based data collection and information exchange system among the various departments of a particular school. The Tuition Centre Management System provides an innovative solution for Today's tuition class record-keeping challenges. This tuition class management system will give you room to handle your responsibilities whether you're just starting or are an experienced professional. The Tuition Centre Management System opens a universe of opportunities to automate the laborious paperwork involved in proper school management. With our proposed record-keeping software the admin can more effectively interact with the students as they develop skills and character for success. They will not only have more time to spend with them, but it will be quality time because they will have upto-date student information to facilitate them.

Tuition Centre Management System is a tuition class fees management, attendance and student performance tracking application. This system ease the work of the employee and admin as well as the student. All the required information can be obtained at single place.

A system is most important if you want to maintain standard and correct tracks of the information in an institute and provide more security to the document if deploy correctly.

1.2. OBJECTIVE OF THE PROJECT

The Tuition Centre Management System provides an innovative solution for Today's tuition class record-keeping challenges. This tuition class management system will give you room to handle your responsibilities whether you're just starting or are an experienced professional. The Tuition Centre Management System opens a universe of opportunities to automate the laborious paperwork involved in proper school management. With our proposed record-keeping software the admin can more effectively interact with the students as they develop skills and character for success.

The objective of this project is to manage tuition centre records easily.

The main objectives include:

- ❖ All the details regarding tuition centre, whether it is small or big, will be computerized.
- ❖ As this management system will be centralized, the chances of the duplicate data in the system are close to nil.
- ❖ The automation feature of this management system will mitigate the task of writing the papers. E.g. there is no need to write the report card of the students on the paper by the pen. It is simply can be done online on the system, and can be forwarded.
- ❖ In today's rush hour of the life, it is difficult for a parent to go to the school of his / her child every time a teacher calls.

By this management system, it will easier for a parent and a teacher to be in touch every day. As a matter of fact, it will be easier for each individual person who is associated with the system to be in touch as per needed.

2. PRELIMINARY INVESTIGATION

In my initial investigation our system has lots of manual work which needs to be computerized. So, lots of paper work is required. In order to minimize this we need to computerize all those departments which require record maintenance. All the different administrative department works require paper work which includes the record maintenance of current Study Centre, Students Affiliated, Teacher Details or Faculty Details. Fees of the students include submission of the form which is duly filled by the student. Records of Marks of Assignment, Theory and Practical are maintained on the paper. No FAQ facility, so students who have some confusions and problems regarding courses structure and fees need to talk to specific functionaries who are normally not available on weekdays at study centres as most of the Study Centres operate on Saturdays and Sundays only. They are not able to find out their teacher qualifications and experiences.

3. REQUIREMENT SPECIFICATION

3.1. JUSTIFICATION OF PROPOSED SYSTEM

The existing system that will be discussed is TCMS. This system is developed by InvoTech Labs. There are no testimonials to show that this system is well use in any learning centre. But there are some functions that can be used to produce to-be system based on this system

After done some reviews of current learning centre, most of it use spreadsheets (.xls) to keep the data. There were several folders created to separate the activities for student, courses, and employee's information. The payment is also use the manually receipt. This way is not very efficient and takes time.

The existing system has various disadvantages compared to the proposed system. Some disadvantages are listed below:

- ❖ It doesn't improve updates regularly.
- ❖ It can't manage a batch at a time, have to set fees for individual students.
- ❖ There is sometimes an error showing in sms alert and also the format of fees reminder, attendance details, and mark details are not mentioned correctly.

The proposed system is "Tuition Centre Management System" which collect and manages student details, staff details of a tuition class. It also track tuition class fees

collection and attendance of every student. It enables a private tutor or any coaching class to maintain a list of students enrolled, track their fees payment and attendance. The system allows fees receipt to be sent via sms. It also enables student to make fees payment online and also to download study materials. This system manage all required informational at single place.

3.2. BENEFITS OF THE PROPOSED SYSTEM

The proposed system is wholly computerized thus making it user friendlier. The system is more efficient, reliable, accurate and fast. The benefits of the proposed system are:

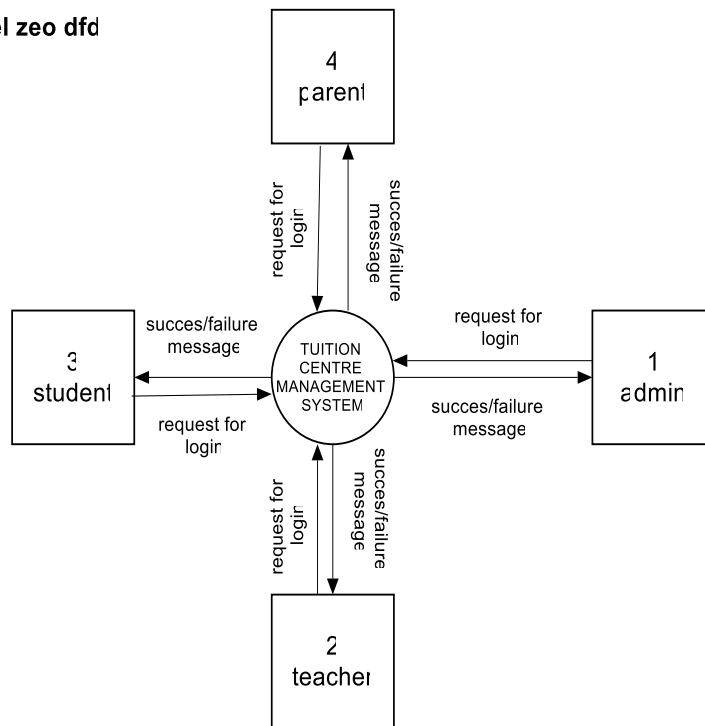
- ❖ It saves the precious time of teachers from regular admin works. This is achieved by automating the usual time-consuming tasks like time-table creation, attendance management, parent-teacher communication, etc. The tuition management system can also generate different reports that help the teachers as well as admin and saves precious time in the process like payslip generation, online fee collection, etc.
- ❖ Timetable creation is the most time-consuming activity within a school and with timetable module in tuition system helps in creating and managing different types of timetables.
- ❖ The fee collection and receipt generation in a tuition class can be simplified and digitized with tuition class management system. With the integration of a payment gateway, the parents can make the fee

payments online without coming to the institute standing in long queues. All due dates and fines for late payments also will be automated as per pre-set rules and intimated to parents through the software.

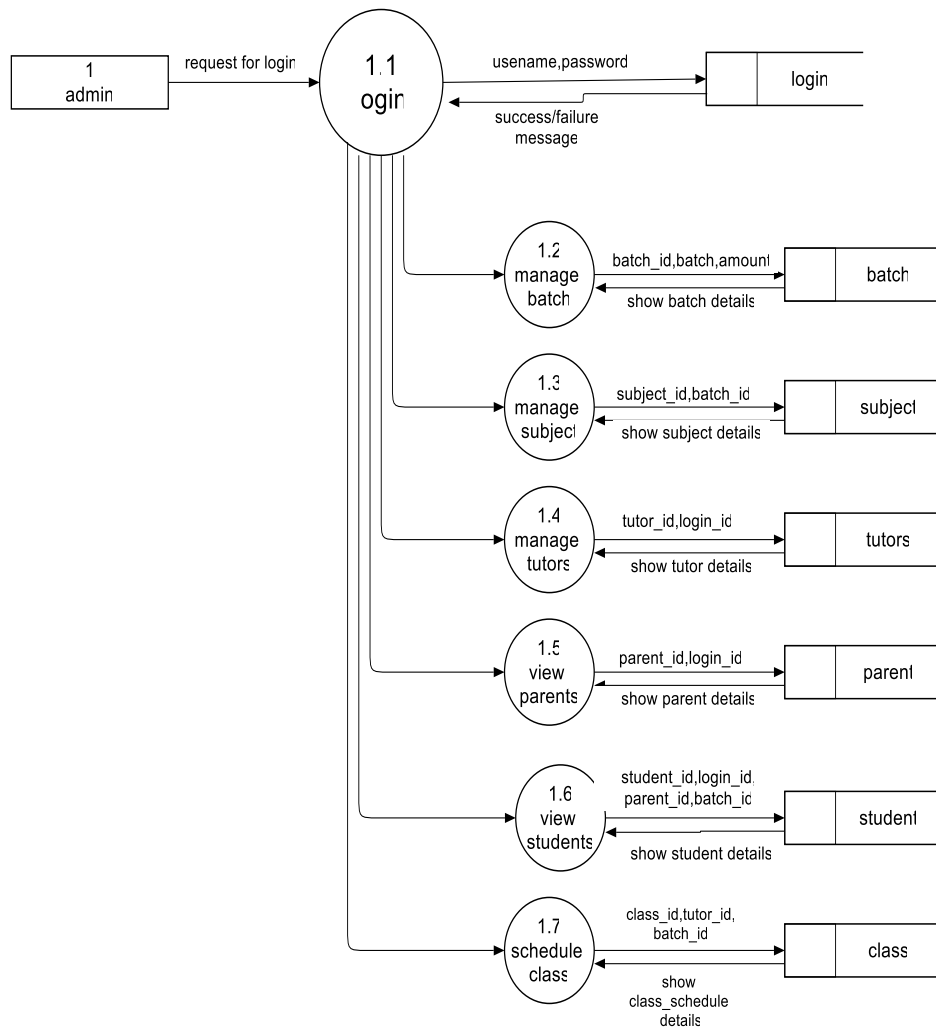
- ❖ Institutes through the usage of SMS communicates with the parents quickly and efficiently. A short text message can communicate the key message to the parents. The communication is delivered as push notification and also allows parents to communicate with parents.

4. DATA FLOW DIAGRAMS

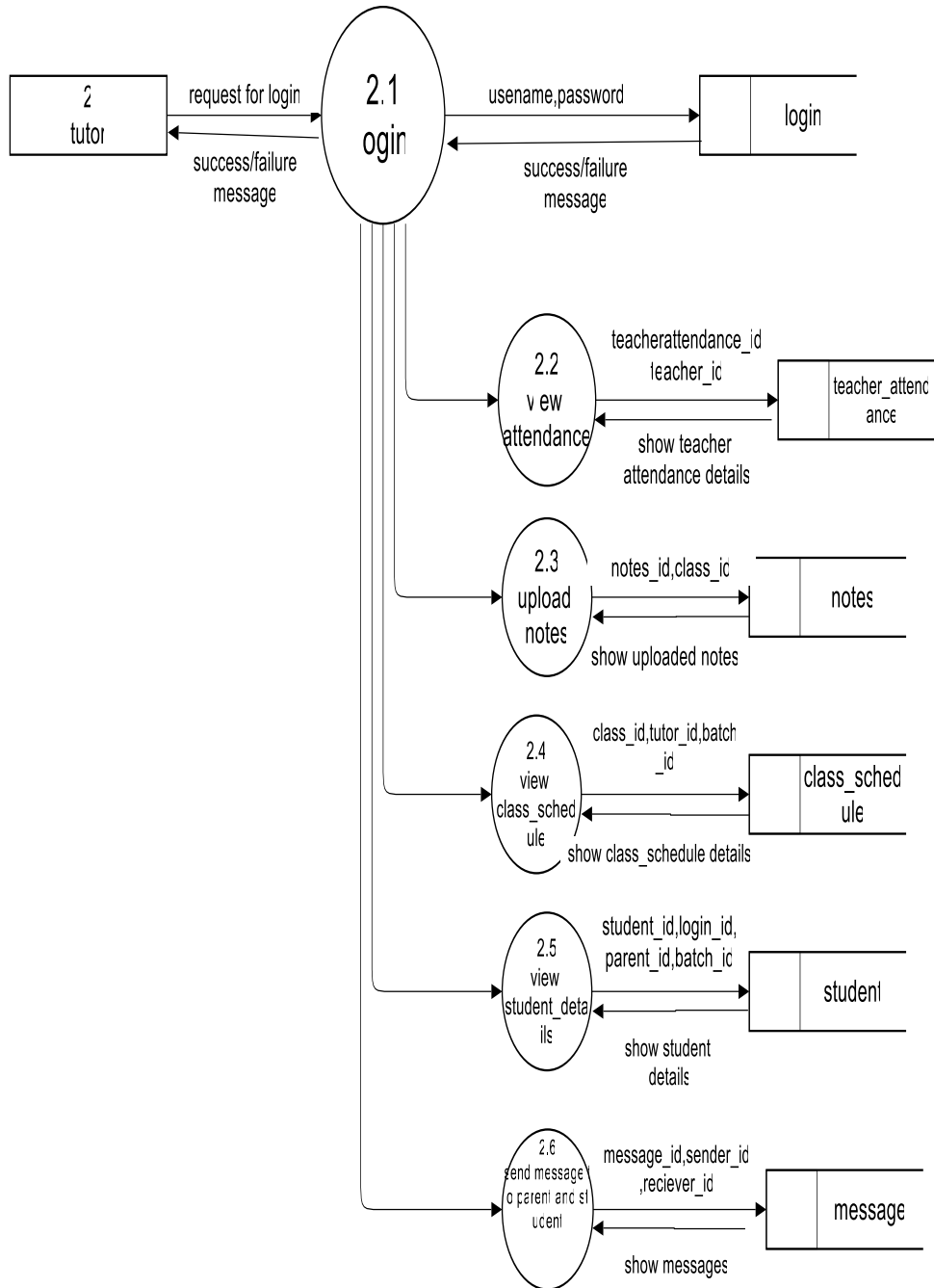
level zero dfd



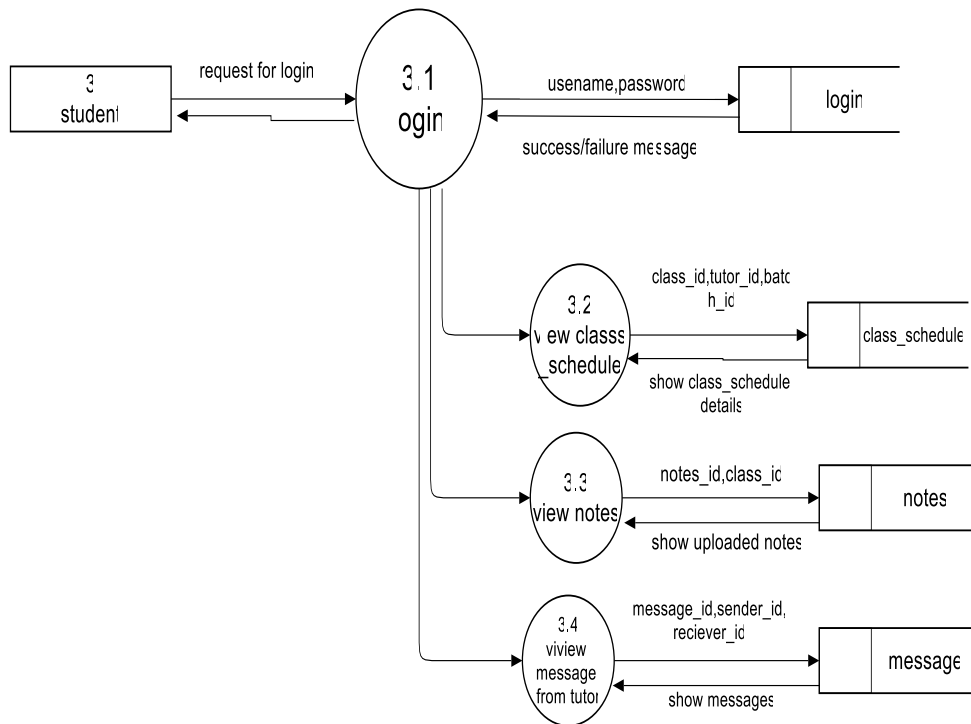
level one dfd : admin



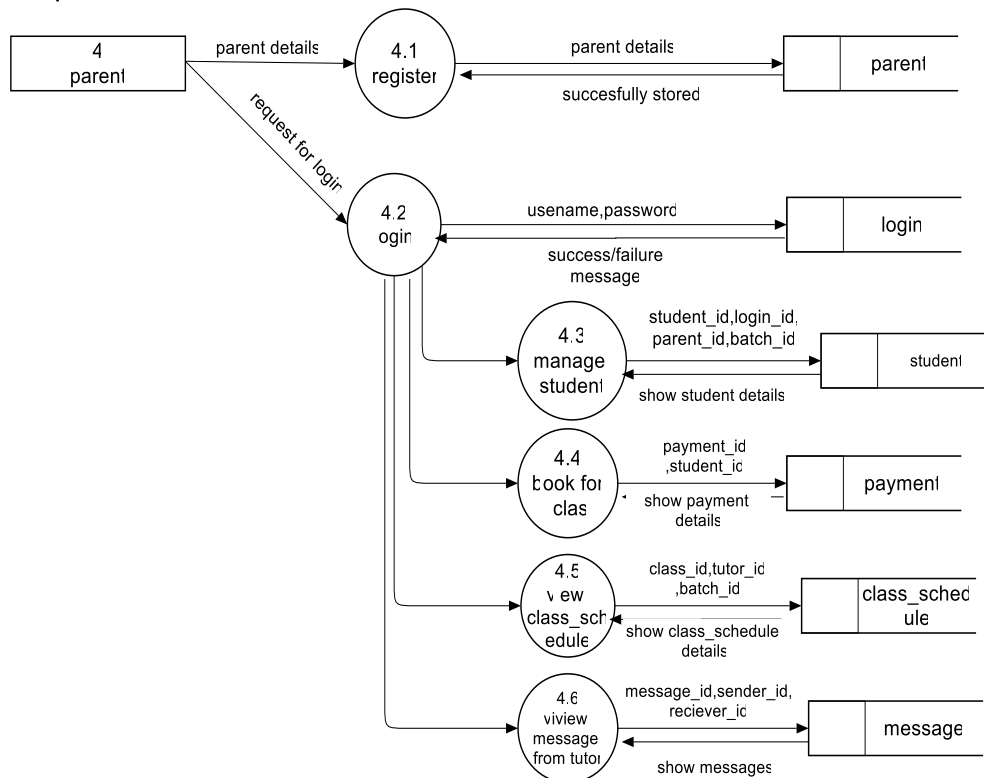
level one dfd : tutor



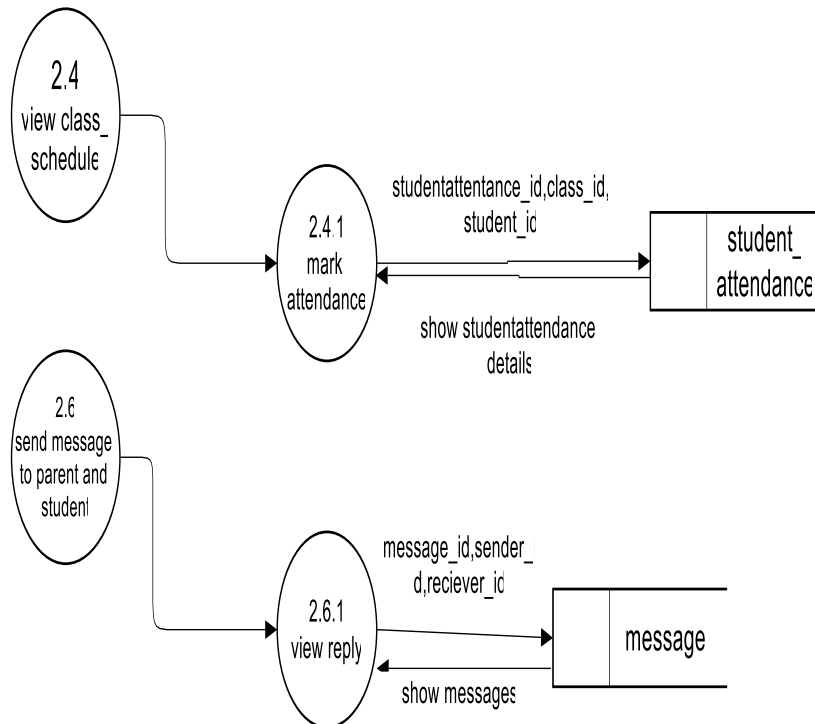
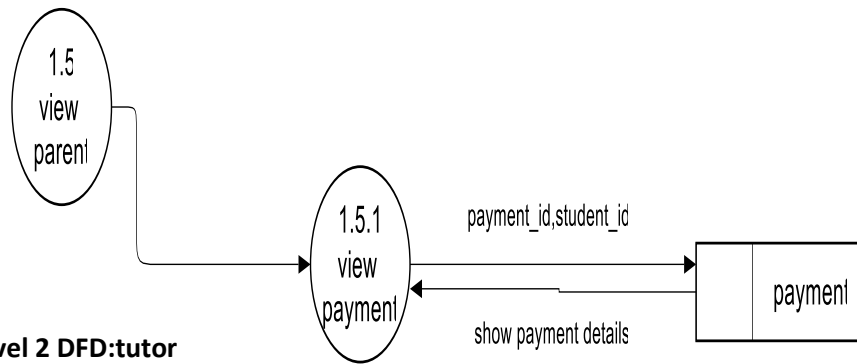
level one dfd: student



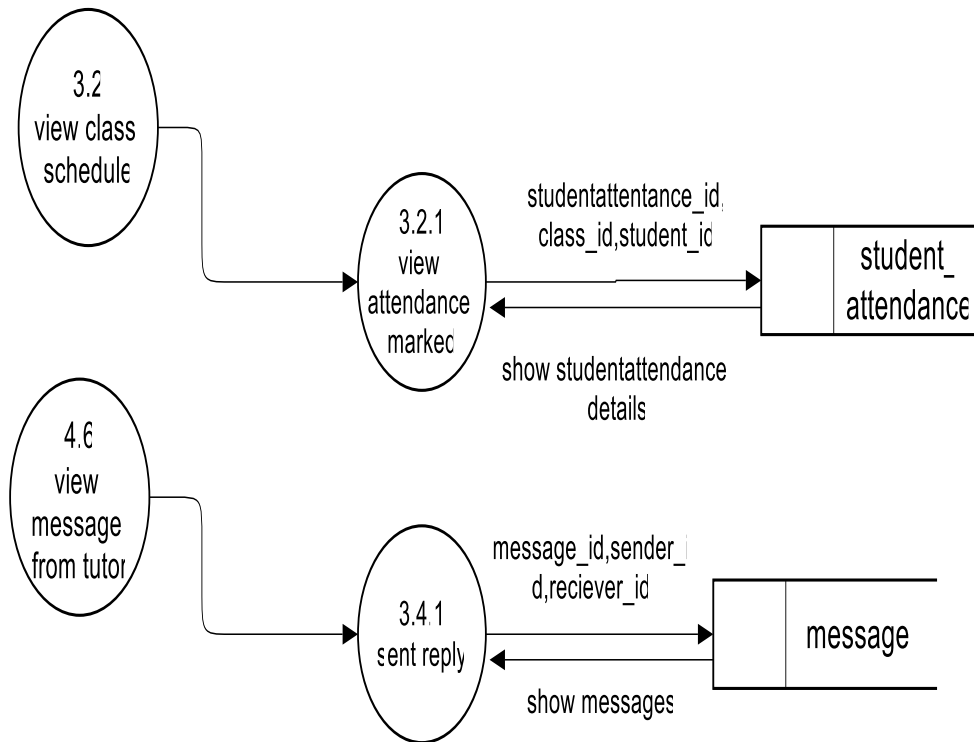
level one dfd: parent



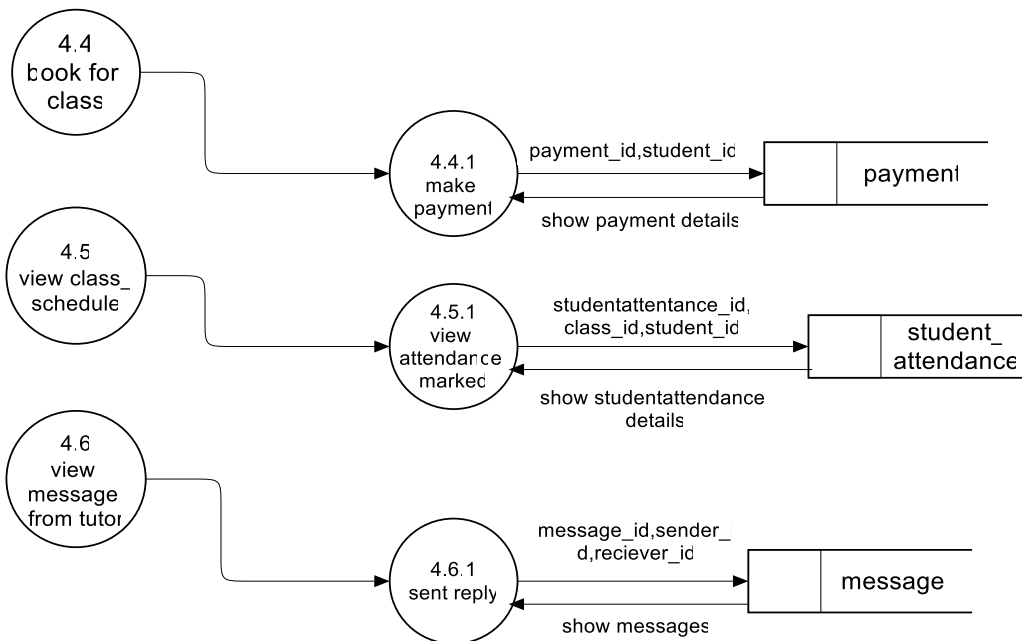
level 2 dfd: admin



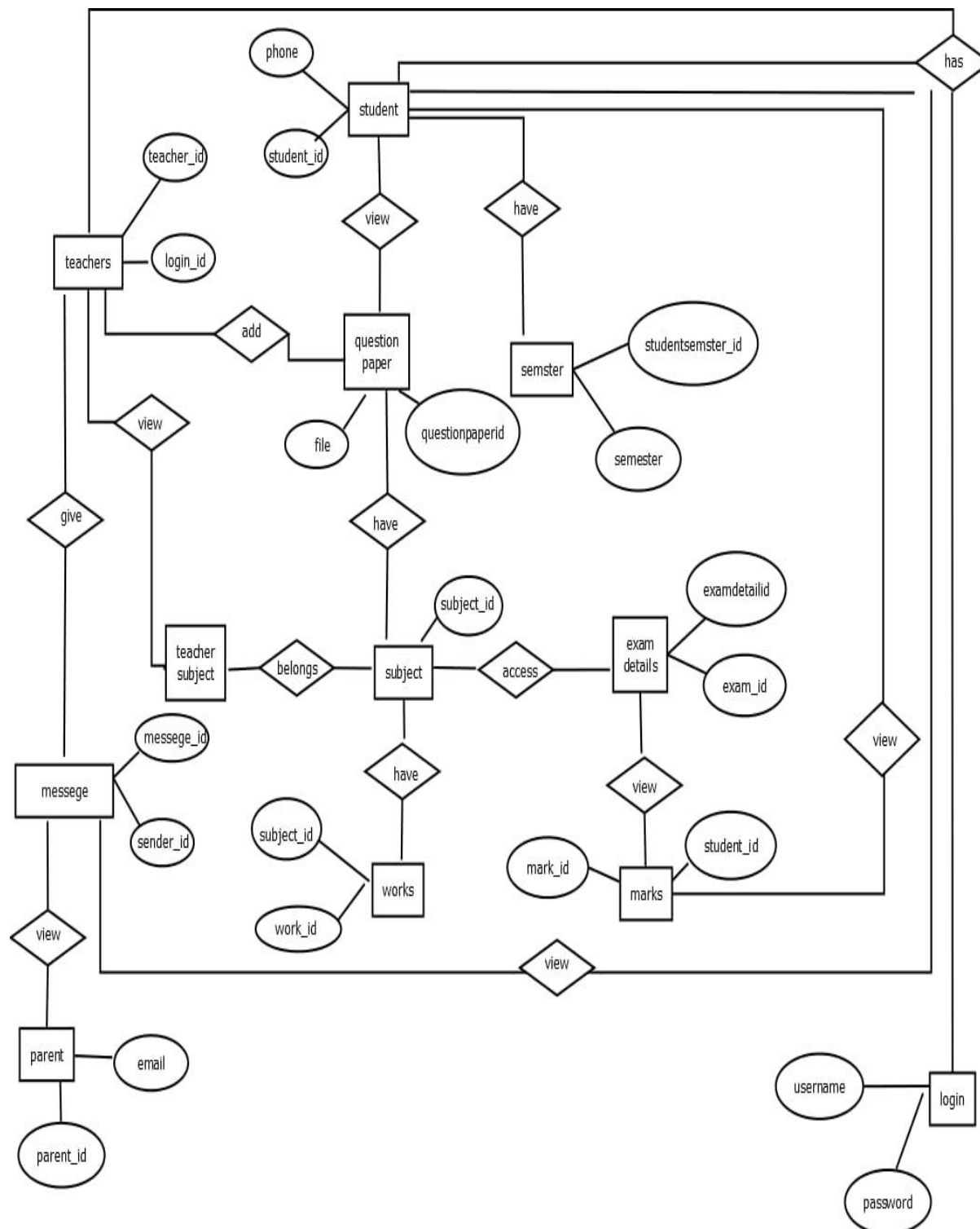
level 2 DFD:student



level 2 DFD:parent



4.1. ER DIAGRAM



4.2. MODULE DESCRIPTION

ADMIN

- ❖ Add/Edit user accounts(teacher, student, parent).
- ❖ Add/Edit class, subjects.
- ❖ Add exam mark via sms.
- ❖ Add student fees and sent fees reminder via sms.
- ❖ Add/Edit student timetable.

TEACHER

- ❖ Add exam marks.
- ❖ Add study materials/files to student.
- ❖ Add attendance
- ❖ They can communicate with student and parent

STUDENT

- ❖ view class timetable
- ❖ view exam mark and attendance status.
- ❖ view the study materials uploaded by the teachers.
- ❖ view fees reminder message and can pay fees online

PARENTS

- ❖ view their children marks
- ❖ view and pay children tuition fee reminder message and can pay fees online
- ❖ view their children attendance
- ❖ They can message directly with teachers

4.3. DATABASE DESIGN

Login table

Field name	Data type	size	constraints	description
login_id	int	11	Primary key	Used to maintain a unique login for admin,tutor,student,parent
Username	Varchar	30	Not null	Username of respective user

Password	Varchar	30	Not null	password for respective user
user_type	varchar	30	Not null	Type of user try to login

Batch table

Field name	Data type	size	constraints	description
Batch_id	int	11	Primary key	Used to maintain a unique id for different classes of students
Batch	Varachar	30	Not null	Name for different batches
Amount	Varchar	30	Not null	Amount to be paid for respective batches

Subject table

Field name	Data type	size	constraints	description
subject_id	int	11	Primary key	Id for different subject
batch_id	Varchar	30	Foreign key	Used to maintain a unique id for different classes of students
Title	Varchar	30	Not null	Title for different subjects
Description	varchar	30	Not null	Description for respective subjects

Tutors table

Field name	Data type	size	constraints	description
tutor_id	int	11	Primary key	A unique id for tutor
login_id	int	11	Foreign key	Used to maintain a unique login for admin,tutor,student,parent
first_name	Varchar	30	Not null	First name of tutor
last_name	varchar	30	Not null	Last name of tutor
Phone	varchar	30	Not null	Phone number of tutor
Email	varchar	30	Not null	Email of tutor

Parent table

Field name	Data type	size	Constraints	description
parent_id	int	11	Primary key	A unique id for parent
login_id	int	11	Foreign key	Used to maintain a unique login for admin,tutor,student,parent
first_name	Varchar	30	Not null	First name of parent
last_name	varchar	30	Not null	Last name of parent
Phone	varchar	30	Not null	Phone number of parent
Email	varchar	30	Not null	Email of parent
Place	varchar	30	Not null	Place of parent

Student table

Field name	Data type	size	constraints	description
student_id	int	11	Primary key	A unique id for student
login_id	int	11	Foreign key	Used to maintain a unique login for admin,tutor,student,parent
parent_id	int	30	Foreign key	Unique id for parent
batch_id	int	30	Foreign key	Used to maintain a unique id for different classes of students
first_name	varchar	30	Not null	First name of student
last_name	varchar	30	Not null	Last name of student
standard_studying	varchar	30	Not null	Class in which student is studying
Phone	varchar	303	Not null	Phone number of student
Email	varchar	0	Not null	Email of student

Class schedule table

Field name	Data type	size	constraints	description
class_id	int	11	Primary key	A unique id for each class
tutor_id	int	11	Foreign key	Unique id for tutor
batch_id	int	11	Foreign key	Used to maintain a unique id for different classes of students
date	int	11	Foreign key	Date in which class is scheduled
stime	varchar	30	Not null	Starting time of class
etime	varchar	30	Not null	Ending time of class
status	varchar	30	Not null	Is student present or absent in the class

Notes table

Field name	Data type	size	constraints	description
note_id	int	11	Primary key	Id for notes to be uploaded
class_id	int	11	Foreign key	Unique id for diff classes
name	Varchar	30	Not null	Title for notes uploaded
file_path	varchar	30	Not null	Path in which file is uploaded

Payment table

Field name	Data type	size	constraints	description
payment_id	int	11	Primary key	Id for payment done
Amount	varchar	30	Foreign key	Amount to be paid for diff batches
student_id	int	11	Not null	Id for student
date_time	varchar	30	Not null	Date and time in which payment done
Batch_id	int	11	Foreign key	Unique id for different batches

Student attendance table

Field name	Data type	size	constraints	description
studentattendance_id	int	11	Primary key	Id for students attended
class_id	int	11	Foreign key	Unique id for diff classes
student_id	int	11	Foreign key	Unique id for student
date_time	varchar	30	Not null	Date and time in which they attended
status	varchar	30	Not null	Is status of student is present/absent

Teacher attendance table

Field name	Data type	size	constraints	description
teacherattendance_id	int	11	Primary key	Id for teachers attended
teacher_id	int	11	Foreign key	Unique id for tutors
date_time	varchar	30	Not null	Date and time in which tutors are present
status	varchar	30		Is tutor absent/present

Message table

Field name	Data type	size	constraints	description
message_id	int	11	Primary key	Id for messages
sender_id	int	11	Foreign key	Sender id of message
receiver_id	int	11	Foreign key	Receiver id of message
message	varchar	30	Not null	Content of message to be sended/recieved
date_time	varchar	30	Not null	Date and time in which mesaage is sended/recieved

5. OUTPUT DESIGN

View messages

View Chatted

Tutors

Tatiana Gomez

Message

View student details

View Students

Student Name	Parnte Name	Batch	Standard Studying	Phone	Email		
Evangeline Bernard	Ezekiel Gomez	Kelly Graves	Quas eos recusandae	+1 (982) 826-2616	kutavu@mailinator.com	Message To Student	Message To Parent

View tutor details

View Tutors

Tutor Name	Email			
Tatiana Gomez	wycy@mailinator.com	Present	Absent	View Attendance

View class schedules for students and parents

Schedule Class Details

Student Name	Batch Name	Subject Name	Tutor Name	Date	Time	
Evangeline Bernard	Kelly Graves	Veniam in non minim	Tatiana Gomez	2020-12-28	12:45 pm - 01:45 pm	View Attendance
Evangeline Bernard	Kelly Graves	Veniam in non minim	Tatiana Gomez	2020-12-28	01:46 pm - 02:46 pm	View Attendance
Evangeline Bernard	Kelly Graves	Veniam in non minim	Tatiana Gomez	2020-12-29	10:45 am - 11:45 am	View Attendance

View parent details

View Parents

First Name	Last Name	Phone	Email	Place
Ezekiel	Gomez	+1 (936) 616-9908	joze@mailinator.com	Eiusmod sunt accusan

View students

View Studets

Student Name	Parent Name	Batch & Amount	Standard Studying	Parent Phone	Parent Email	Paid Amount	Paid Date
Evangeline Bernard	Ezekiel Gomez	Kelly Graves : 100	Quas eos recusandae	+1 (936) 616-9908	joze@mailinator.com	100	2020-12-28 15:18:01

View tutors

View Tutors

First Name	Last Name	Phone	Email		
Tatiana	Gomez	+1 (613) 947-9207	wycy@mailinator.com	Delete	Update

Batches and classes of students

View Batch and Classes

Batch Name	Amount	
Kelly Graves	100	Book & Pay

Class scheduled by teacher to student

Schedule Class Details

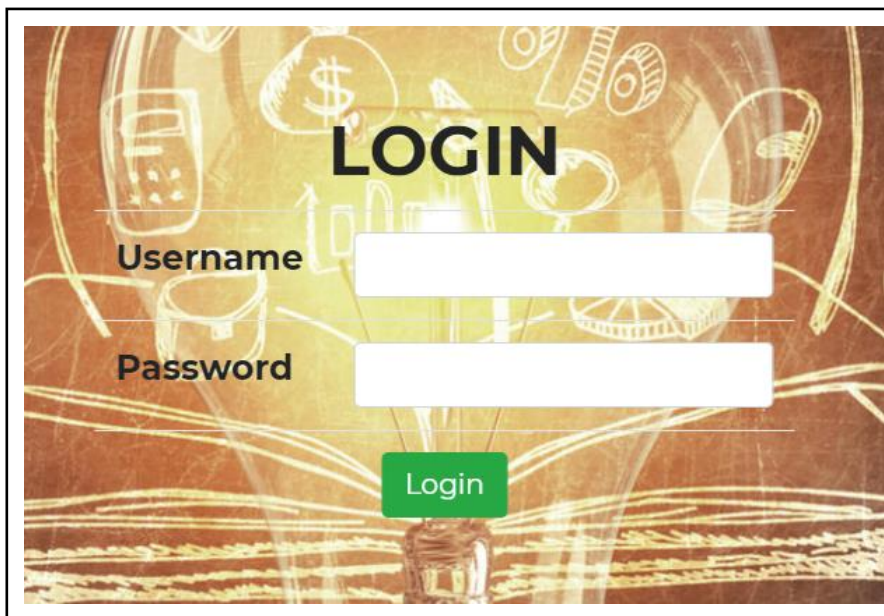
Batch Name	Subject Name	Tutor Name	Date	Time		
Kelly Graves	Veniam in non minim	Tatiana Gomez	2020-12-28	12:45 pm - 01:45 pm	View Attendance	Notes
Kelly Graves	Veniam in non minim	Tatiana Gomez	2020-12-28	01:46 pm - 02:46 pm	View Attendance	Notes
Kelly Graves	Veniam in non minim	Tatiana Gomez	2020-12-29	10:45 am - 11:45 am	View Attendance	Notes

Class notes uploaded by teacher

Class Notes	
Name	File
sa	

5.1. INPUT DESIGN

Login details input



LOGIN

Username

Password

Add student

Add Student

Batch & fee

Select Batch

First name

Last name

Standard Studying

Phone

Email

Password

ADD

Add tutor

Add Tutor

First name

Last name

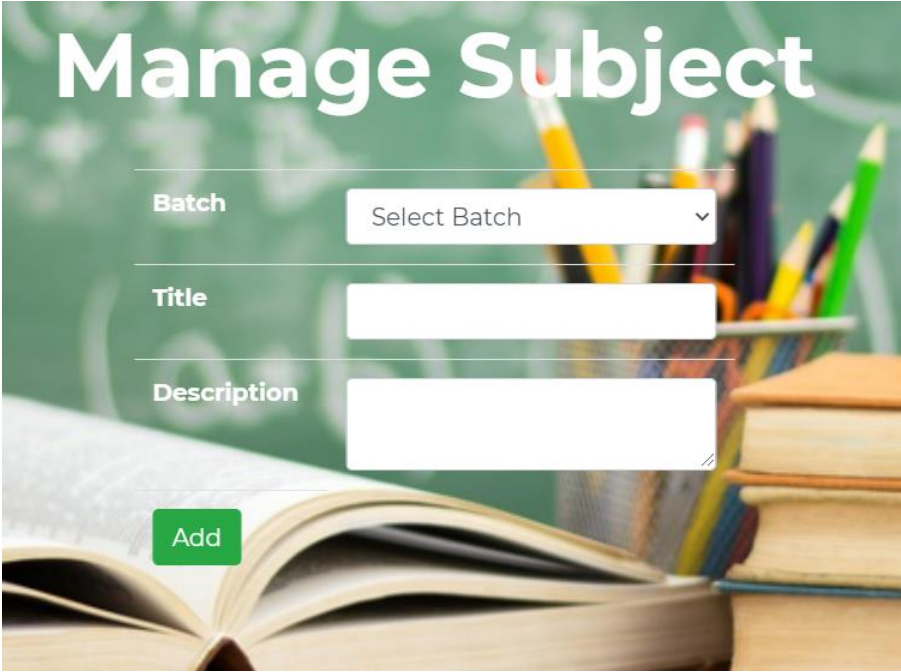
Phone

Email

Password

ADD

Manage subject

The form is titled "Manage Subject" in large white font. It features three input fields: "Batch" with a dropdown menu showing "Select Batch", "Title" with a text box, and "Description" with a text area. A green "Add" button is positioned at the bottom left. The background is a collage of educational items like books and pencils.

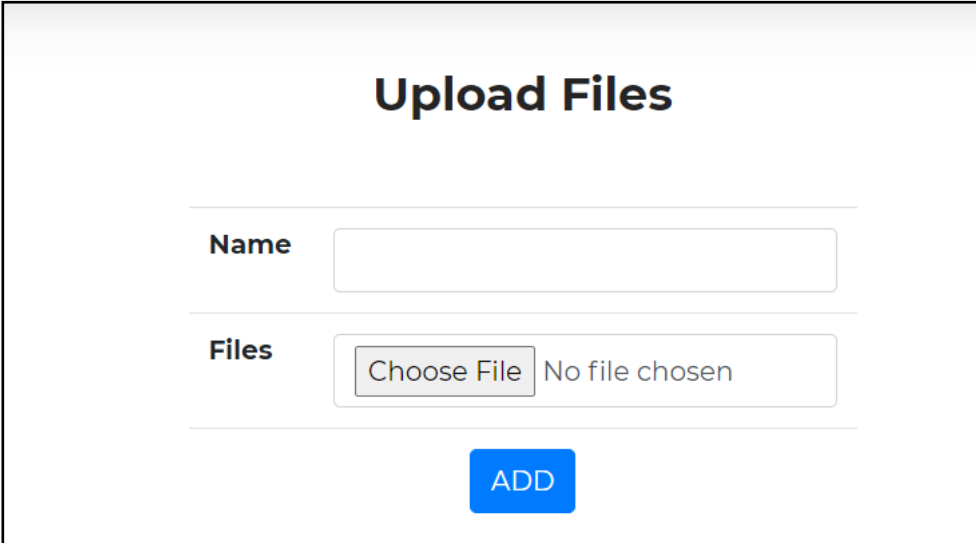
Manage Subject

Batch

Title

Description

File uploading by teacher

The form is titled "Upload Files" in bold black font. It has two input fields: "Name" with a text box and "Files" with a file selection button labeled "Choose File" and the text "No file chosen". A blue "ADD" button is at the bottom center.

Upload Files

Name

Files No file chosen

Message sending by teacher

Messages

vjd

sgs

Send

Manage batch

Manage Batch

Batch Name

Amount

ADD

6. PROBLEM DEFINITION

The way of recording attendance by using a paper form and put in a file may not be safe and efficient because the records might be destroyed by the natural cause such as flood or unnatural missing filed like missing files.

In the existing system, parents need to call the tuition centre or teacher or need to attend the tuition centre to know about their children's attendance record in tuition class. However, by using this system, parents can monitor their children's attendance and can avoid their children skip the tuition class. Nowadays, student schedule is full with the extra class in school, some learning hobbies and much homework given by the school. Therefore, the student maybe will forget the homework given by the tuition class and unfinished it. This mean that the children waste their time to the tuition class and did not learn anything as compared to the other children who done their tuition class homework. Therefore, a homework checklist can help the parents to check their children's homework and also can prevent the forgetfulness.

If tuition centre use the manual registration system will cause inconvenience to the parent because parents nowadays are busy with their work, this mean that they maybe did not have the extra time to go the tuition centre for help their children do registration. With the TCIS, parents only need fill the online registration form to help their children do the registration and submit the registration form to the tuition centre by online system and can pay the tuition fees online. Therefore, they no need waste their time to the tuition centre. The Tuition Centre Management System is web based systems that will be developed to manage the system of the tuition centre. This system can help to solve the problem such as the way to take student attendance, homework management and the registration problem to the parent.

7. SELECT THE SOFTWARE DEVOLEPMENT MODEL

I select prototype model for this project.

- ❖ **Requirement Gathering and analysis** : All possible requirements of the system to be developed like processing speed, data security, acquiring more functions etc, are captured in this phase and then documented in a requirement specification document.
- ❖ **System Design**: The requirement specifications from first phase are studied in this phase and system design is prepared. System Design helps in specifying hardware and system requirements and also helps in defining overall system architecture.
- ❖ **Implementation**: With inputs from system design, the system is divides as units . which are integrated in the next phase. Each unit is developed and tested for its functionality which is referred to as Unit Testing.
- ❖ **Integration and Testing**: All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration the entire system is tested for any faults and failures.

- ❖ **Deployment of system:** Once the functional and non functional testing is done, the software is deployed in the customer environment or released it.
- ❖ **Maintenance:** There are some issues which come up in the client environment. To fix those issues patches are released. Also to enhance the product some better versions are released. Maintenance is done to deliver these changes in the customer environment.

8. PROJECT PLANNING

Considering the total available time I have prepared a plan and schedule which is given below.

Sl.No	Duration	Activity
1	July 04 - July 07	Identification of need.
2	July 08 - August 01	Feasibility study
3	August 02 – August 28	Analysis
4	August 29 – September 20	Design
5	September 21 – September 30	Testing
6	October	Implementation

9. PROJECT SCHEDULING

Once we have estimates of the effort and time requirement for the different phases, a schedule for the project can be prepared. Conceptually simple and effective scheduling techniques like calendar-oriented charts are prepared. Progress can be represented easily by ticking off each milestone when completed. Alternatively, for each activity another bar can be drawn specifying when the activity actually started and ended, i.e., when these two milestones were achieved. Once we have estimates of the effort and time requirement for the different phases, a schedule for the project can be prepared.

10. FEASIBILITY STUDY

Feasibility study is a step towards identification of the candidate system as a feasible product. First the studies often pre-suppose that when the feasibility document is being prepared, the analyst is in a position to evaluate solutions. Second, most studies tend to overlook the confusion inherent in system development – the constraints and the assumed attitudes.

If the feasibility study is to serve as a decision document, it must answer three questions:

- ❖ Is there a new and better way to do a job that will benefit the user?
- ❖ What are the costs and saving of the alternatives?
- ❖ What is recommended?

There are three key considerations to the feasibility study:

- ❖ Economic
- ❖ Technical
- ❖ Behavioural
- ❖ Operational

10.1. TECHNICAL FEASIBILITY

A study of resource availability that may affect the ability to achieve an acceptable system. This evaluation determines whether the technology needed for the proposed system is available or not.

- ❖ Can the work for the project be done with current equipment existing software technology & available personal?
- ❖ Can the system be upgraded if developed?
- ❖ If new technology is needed then what can be developed? This is concerned with specifying equipment and software that will successfully satisfy the user requirement. The technical needs of the system may include:

An important issue for the development of a project is the selection of suitable front-end and back-end.

10.2. ECONOMIC FEASIBILITY

Economic justification is generally the “Bottom Line” consideration for most systems. Economic justification includes a broad range of concerns that includes cost benefit analysis. In this we weight the cost and the benefits associated with the candidate system and if it suits the basic purpose of the organization i.e. profit making, the project is making to the analysis and design phase.

The financial and the economic questions during the preliminary investigation are verified to estimate the following:

- ❖ The cost to conduct a full system investigation.
- ❖ The cost of hardware and software for the class of application being considered.
- ❖ The benefits in the form of reduced cost.
- ❖ The proposed system will give the minute information, as a result the performance is improved which in turn may be expected to provide increased profits
- ❖ This feasibility checks whether the system can be developed with the available funds. The Tuition Centre Management System does not require enormous amount of money to be developed. This can be done economically if planned judiciously, so it is economically feasible. The cost of project depends upon the number of manhours required.

10.3. OPERATIONAL FEASIBILITY

It is mainly related to human organizations and political aspects. The points to be considered are:

- ❖ What changes will be brought with the system?
- ❖ What organization structures are disturbed?
- ❖ What new skills will be required? Do the existing staff members have these skills? If not, can they be trained in due course of time?

SOFTWARE REQUIREMENT SPECIFICATION (SRS)

11. INTRODUCTION

The “TUITION CENTRE MANAGEMENT SYSTEM” can handle all the details about a staff, students and their parents. The details include student and staffs personal details, student batch details, student performance and their fees collection and payment, and parents enquiries about their children. The “TUITION CENTRE MANAGEMENT SYSTEM” is an automated version of manual tuition centre management system.

11.1. PURPOSE

This document describes the software requirements specification (SRS) for the “Tuition Centre Management System” that provides the access and management of information of different modules in a coaching institution-like Students, Guardians, Teachers, Finance, Examination. Our project is based on a database, which stores and maintains the information of different modules within the system. The advantage of the management system is to avoid entries in hard copies and it saves the burden of hard copies of data. The system is a Desktop Application and GUI for this system is developed in PHP#. The Database for this management system is created in SQL. There are four users for this system 1. Admin (have full access to read and write of all modules in management system) 2. Teacher (have access limited to write and manage the student’s marks and their results, attendance, can add notes ,can update performance report ,can have direct communication with parents, and can view notifications from admin and can edit their own profile) 3. Students (have access limited to read class time table, exam mark, attendance status, can read study materials, pay fees online through payment gateway and also communicate with teacher) 4. Parents (have access limited to read children mark, children class routine, fees reminder message, can also pay fees online and can communicate with teacher)

The purpose of this document is to retrieve and analyze the ideas that define the product and requirements that the user needs. This document describes the details of our product, its parameter, and its goals. This SRS document describes the target, audience, user interface of product and Software/Hardware requirements of our product. This document also describes the problem we have faced during the designing and implementation of the product and also describes how we have solved this problem and make our product more efficient. The management system saves the human power and time cost to perform the same task. The data in the database can be saved for a long time and can be used for different purposes in the future. In management systems, there is a minor chance of losing the data. This document also defines how customers and users see our product and understand the functionality of the product. This document will help the developers/designers in case of maintenance of the software product.

11.2. SCOPE

As coaching institutions are growing day by day more and more, and also increasing the complexity of storing information of students and their performance etc, they face many related issues: attendance and fee of students etc.

This project is based on the educational institute system where this application gives maximum services in a single software product that is used by teacher and system administration.

11.3. DEFINITIONS, ACRONYMS, AND ABBREVIATIONS

- ❖ **Tuition class management sytem:** An information system for managing student and teacher resources in the institute.
- ❖ **Admin:** Who handle all the activities in the institute.
- ❖ **Teacher:** A person who teaches in the institute.
- ❖ **Student:** a person formally engaged in learning, especially one enrolled in the institute.
- ❖ **Parent:** It is the responsible person of the student.
- ❖ **Timetable:** A schedule of events that organizes school activities throughout the day.
- ❖ **Attendance:** The number of persons present in the institute.
- ❖ **Report:** The tuition class report is the form that is filled out by your teacher. It includes a transcript, information about the students academic performance.

Acronyms	Meaning
SQL	Structured Query Language
PHP	Hypertext Preprocessor
SMS	Standard Message Service
TCMS	Tuition Class Management System

11.4. REFERENCES

- ❖ K K Aggarwal, Yogesh Singh - Software Engineering, Third Edition, New Age ,International Publications
- ❖ Roger S Pressman - Software Engineering: A Practitioner's Approach, Sixth Edition, McGraw-Hill Higher Education

11.5. OVERVIEW

The developer is responsible for :

- ❖ Developing the system.
- ❖ Installing the software.
- ❖ Maintaining the system.

12. OVERALL DESCRIPTION

12.1. PRODUCT PERSPECTIVE

The product Tuition Centre Management System, is an independent product and does not depend on any other product or system. The product will automate various tasks associated with handling student details and better organizing the stored information and optimum performance, thus helping the coaching institutions to ensure smooth working of these processes.

12.2. PRODUCT FUNCTIONS

The “Tuition Centre Management system” will allow access only to authorized users with specific roles (System admin, teachers, student and parents). Depending upon the user’s role, he/she will be able to access only specific modules of the system.

A summary of major functions that this system will perform are:

- ❖ Ab login facility for enabling only authorized access to the system
- ❖ System admin will be able to add, modify or delete batches, courses, attendance, marks and login information.
- ❖ Teachers will be able to add/modify student attendance and marks in exam.
- ❖ Student will be able to add/modify his/her own details and can make fees payments.
- ❖ Parent will be able to read their children marks, attendance and can make payments.
- ❖ Admin/teachers will be able to generate reports

12.3. USER CHARACTERISTICS

Admin

- ❖ Managing user accounts (teacher, student, parent).
- ❖ Managing class, subjects
- ❖ Managing exams, grades
- ❖ Managing exam mark
- ❖ Sending exam mark via sms
- ❖ Managing student attendance
- ❖ Managing student fees and sent fees reminder via sms
- ❖ Managing student timetable

Teacher

- ❖ Managing students.
- ❖ Managing exam marks.
- ❖ Provide study materials/files to student.
- ❖ Managing attendance

- ❖ They can communicate with student and parent

Student

- ❖ They can view class timetable, exam mark and attendance status.
- ❖ They can view the study materials uploaded by the teachers.
- ❖ They get their fees reminder message and can pay fees online
- ❖ They can also communicate with their teachers.

Parents

- ❖ They can view their children marks
- ❖ They get children tuition fee reminder message and can pay fees online
- ❖ They can view their children attendance
- ❖ They get children class routine
- ❖ They can message directly with teachers

12.4. CONSTRAINTS

- ❖ The system must be user friendly.
- ❖ Designed in PHP using MYSQL

12.5. ASSUMPTION AND DEPENDENCIES

Users can just retrieve the files and personnel details from the database. They can edit and view their details and can upload files by changing some limited portions of the database. Administrator will have entire access throughout the database. System should have proper user authentication.

13. SPECIFIC REQUIREMENTS

13.1. EXTERNAL INTERFACES

- ❖ **Login:** It asks the user to type his username and password . If the user entered either his username or password incorrectly then an error message occurs.
- ❖ **Hardware interface:** Only the recommended configuration (basic requirements of a computer system) no other specific hardware is required to run the software.
- ❖ **System interface:** It is platform independent, any device with an active internet connection and a web browser can run this .

13.2. FUNCTIONAL REQUIREMENTS

- ❖ Admin shall login
- ❖ Admin shall add new student, teacher and class and modify them
- ❖ admin shall access all the data about student and teacher related.
- ❖ Admin shall manage the school activity
- ❖ Admin shall generate timetable
- ❖ Student shall login by his/her id
- ❖ Teacher shall login by his/her id
- ❖ Student shall view notes downloaded by teacher

13.3. PERFORMANCE REQUIREMENTS

The proposed system that we are going to develop will be used as the Chief performance system. Therefore, it is expected that the database would perform functionally all the requirements that are specified by the shop. The performance of the system should be fast and accurate. Response of the system to an operation should be within reasonable time. The system should be able to handle large amount of data. The system should also capable for updating program list, rules, adding/removing registered users etc.

13.4. LOGICAL DATABASE REQUIREMENTS

- ❖ System should have installed with PHP as back end.
- ❖ Create different tables for user details(admin, teacher, student, parent), mark details, subject details, attendance details, batch details, sms details and fees payment details.
- ❖ Insert valid data's to the created tables

13.5. DESIGN CONSTRAINTS

The program is designed for every platform. Before accepting the system the developer will have to show through test cases that all conditions are satisfied. The total time that will be taken for the completion of the product is expected to be four months.. The program is designed for and will operate under the Ubuntu OS. Before accepting the system the developer will have to show through test cases that all conditions are satisfied. The design is reliable with any environment. The system may have to be maintained if the system needs an outline with upcoming generations.

13.6. SOFTWARE SYSTEM ATTRIBUTES

- ❖ **Reliability:** The software should not have any reliability issues. The software will be thoroughly tested and any issues resolved.
- ❖ **Availability:** The software will execute as a standalone system so as long as the machine is running, the program will be available. The key to maintaining availability will be by ensuring a connection to the database server is available. Failure to connect to the database will make data unavailable.
- ❖ **Security:** This software is intended to communicate over an internal network; therefore security is of little concern. The user will have to enter the username and password so the program can connect to

the database server. The username and password will not be stored because encryption of such information is outside the scope of the project.

- ❖ **Maintainability:** The software will be composed of various modules decreasing the complexity of expansion
- ❖ **Portability:** As states previously, this software will only run under the Windows OS. The setup file, setup.info, can be copied to multiple machines so that each program does not have to be setup separately.

13.7. ORGANIZING THE SPECIFIC REQUIREMENTS

In this system the overall functionality is organized by Data flow diagrams and E-R diagrams. Based on these diagrams, data relationships and dependencies are found and a functional hierarchy is made for organizing the specific requirements.

13.8. ADDITIONAL COMMENT

Tuition Centre Management System is a tuition class fees management, attendance and student performance tracking application. This system ease the work of the employee and admin as well as the student. All the required information can be obtained at single place.

A system is most important if you want to maintain standard and correct tracks of the information in an institute and provide more security to the document if deploy correctly.

14. SOFTWARE AND HARDWARE REQUIREMENT

Software specification: Web Browser: All industry standard web browsers (Internet Explorer, Mozilla Firefox, Google Chrome, and Apple Safari)

- ❖ PHP Engine.
- ❖ Web Server (Apache HTTP Server 2.2/WAMP Server).
- ❖ Database server: MySQL Server 5.0 recommended
- ❖ Operating system: Linux, UNIX, Windows

Hardware specification: PHP base software works well on any web-server that meets its software requirements specified above. This is definitely not a processor-hungry or memory-hungry application

15. FUTURE SCOPE AND ENHANCEMENT

As we all know technology is devoleping by seconds by seconds. so there are some future enhancement whiam adding to the system in future which are an option for analyzing student mistake option which teacher can analyze student character and refer a specific book from the library or maybe an online study material which might help the student to cope up with the topic. And another is collect and process student feedback which means This feedback can be on various matrices such as – clarity of concepts; quality of study material shared, teaching techniques and examples shared by the teachers. On the basis of this

feedback, anecdotal data can be gathered and analyzed to get meaningful reports. next one is suggesting careers which includes This is a typical scenario of primary education at the end of which the students are not very sure of which career stream should be chosen. The system would know a lot about each student's capabilities, strengths, and weaknesses. Further to the availability of this data, the AI and Predictive Analysis Engine of the system can provide guidance to students about careers and streams to be chosen. next important enhancement is monitoring the student health which means for monitoring the holistic development of students, the data collected during periodic health check-ups can be collected and compared to an ideal growth rate of the student. This in itself has an infinite scope as a lot can be achieved through API integrations with Health Monitoring Systems. The output from such an ecosystem can also give suggestions on meals and its ingredients to ensure perfect health and growth rate of students. Next is assisting for recruitments which is In the case of higher studies, the recruiting firms would want to short-list students on the basis of traits, positive incidents, academic excellence, growth, and achievements.

Main drawback of the system are admin cannot edit the scores after the deadlines and extensive modules and features make difficult for user to utilize the system. large scale tuition centres make system complex .students have no knowledge about the details of teacher. teachers cannot know about salary in the system.