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School Management System

Introduction

A School Management System is a software application designed to streamline and automate various administrative and academic tasks in a school. The system aims to provide a centralized platform for managing student information, teacher data, courses, attendance, grades, and other relevant school activities.

Objective

The primary objective of the School Management System project is to:

1. Improve Efficiency: Automate manual processes, reducing paperwork and administrative burdens.
2. Enhance Accuracy: Minimize errors in data management, ensuring accuracy and reliability.
3. Facilitate Communication: Provide a platform for stakeholders (students, teachers, owner, and administrators) to access and share information.
4. Support Decision-Making: Offer insights and analytics to inform decision-making and improve school operations.
5. Ensure Data Security: Safeguard sensitive student and others information with robust security measures.

System Requirements

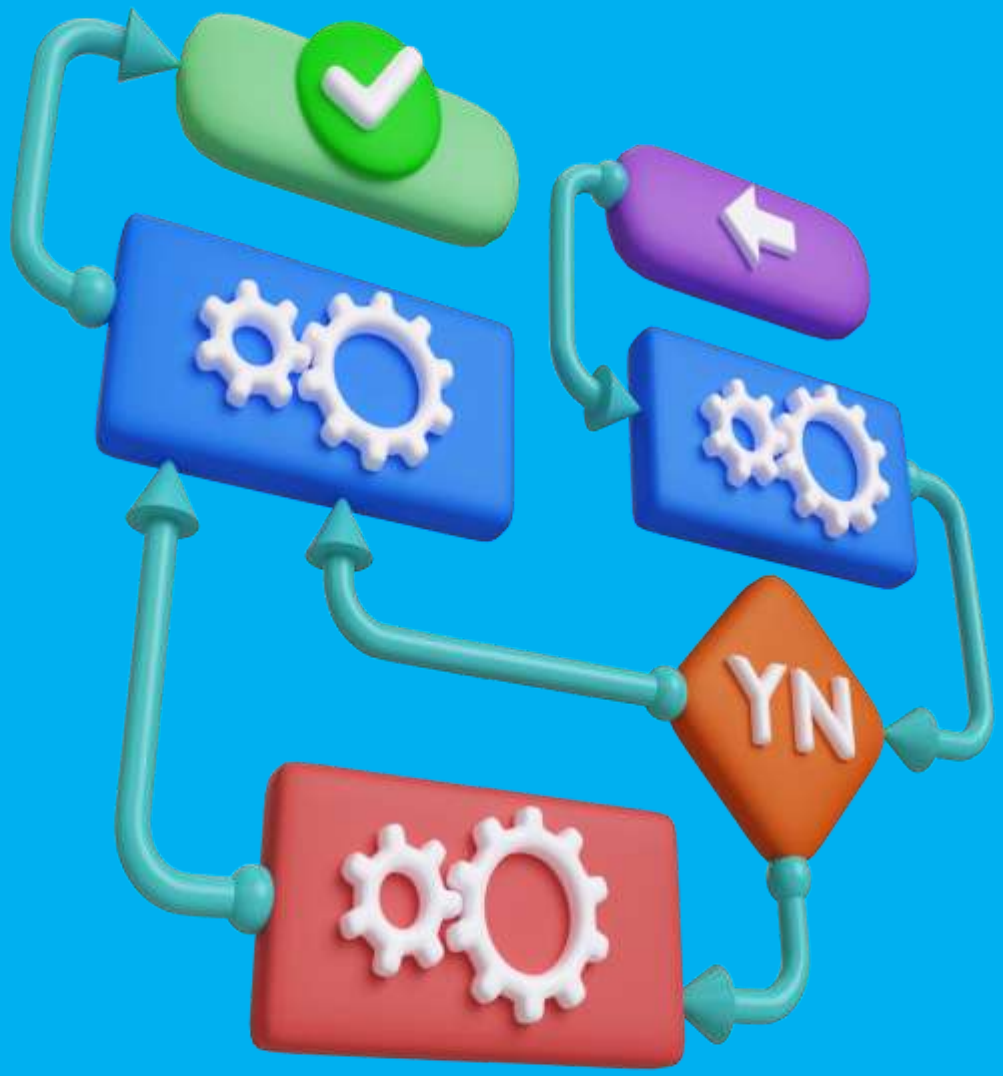
Specification

Hardware Requirements:

- Server with PHP and MySQL support
- Minimum 512MB RAM
- Pentium IV Processor
- 40GB storage

Software Requirements:

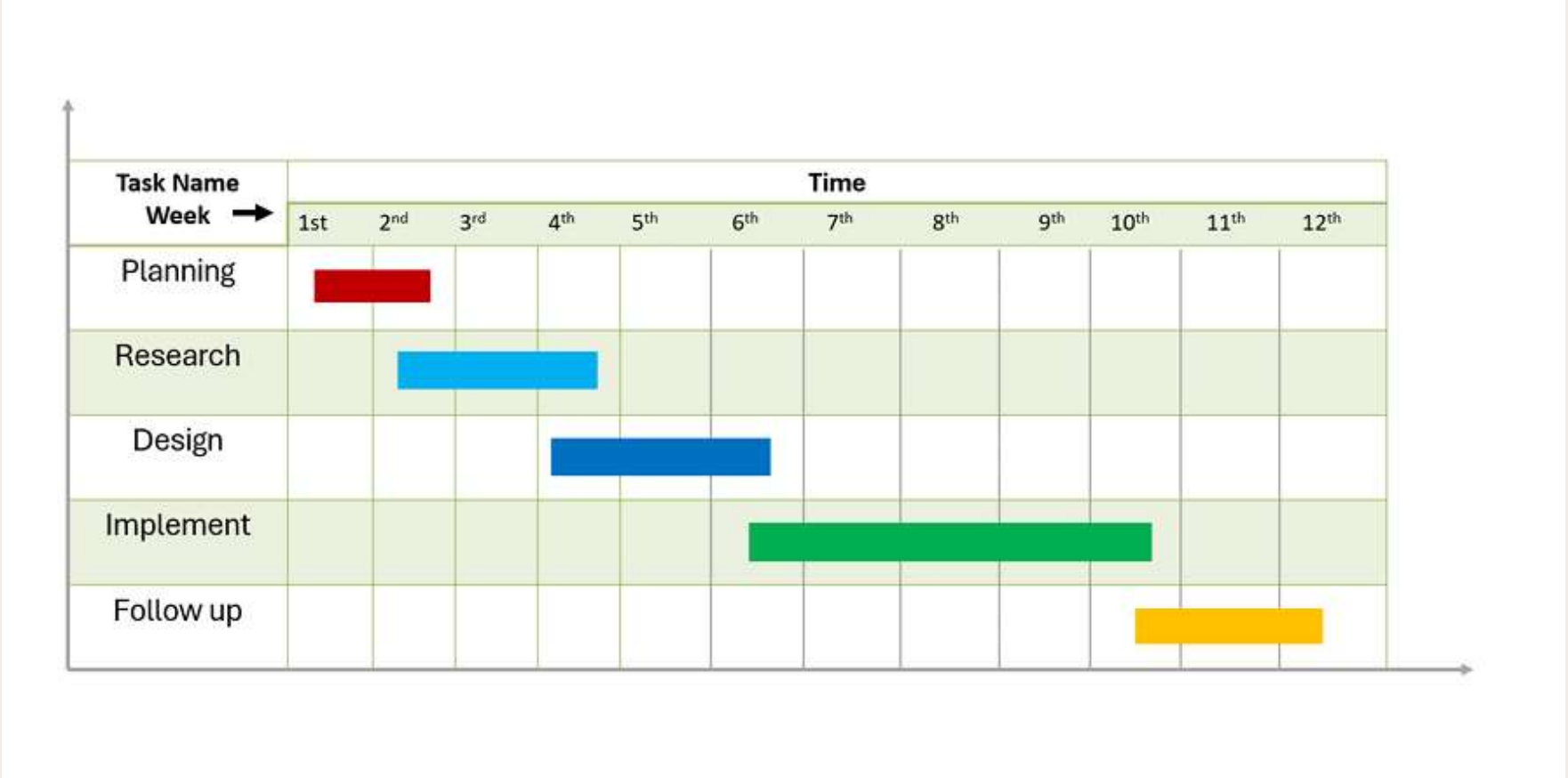
- Frontend: HTML, CSS, JavaScript
- Backend: PHP
- Database: MySQL
- Editor: VS Code



Process Logic

1.User Authentication → Secure login for Admin, Teachers, Students, and Owner.
2.Admissions & Enrollment → Student registration and class allocation.
3.Daily Operations → Attendance, timetable, assignments.
4.Examinations & Grading → Marks entry, result calculation, report generation.
5.Fees & Payments → Payment processing and financial tracking.
6.Communication & Alerts → Notifications for exams, attendance, events.
7.Reports & Analytics → Insights on student performance and finances.

Gantt Chart


Task Name
Week
Time
1st
2nd
3rd
4th
5th
6th
7th
8th
9th
10th
11th
12th
Planning
Research
Design
Implement
Follow up

Data Dictionary

```sql
CREATE TABLE `admins` (
  `s_no` int(20) NOT NULL,
  `id` varchar(30) NOT NULL,
  `fname` varchar(100) NOT NULL,
  `lname` varchar(100) NOT NULL,
  `dob` varchar(20) NOT NULL,
  `image` varchar(40) NOT NULL DEFAULT '1701517055user.png',
  `phone` varchar(20) NOT NULL,
  `gender` varchar(20) NOT NULL,
  `address` varchar(700) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1 COLLATE=latin1_swedish_ci;
```

```sql
CREATE TABLE `users` (
  `s_no` int(15) NOT NULL,
  `id` varchar(40) NOT NULL,
  `email` varchar(256) NOT NULL,
  `password_hash` varchar(700) NOT NULL,
  `role` varchar(20) NOT NULL,
  `theme` varchar(20) NOT NULL DEFAULT 'light'
) ENGINE=InnoDB DEFAULT CHARSET=latin1 COLLATE=latin1_swedish_ci;
```

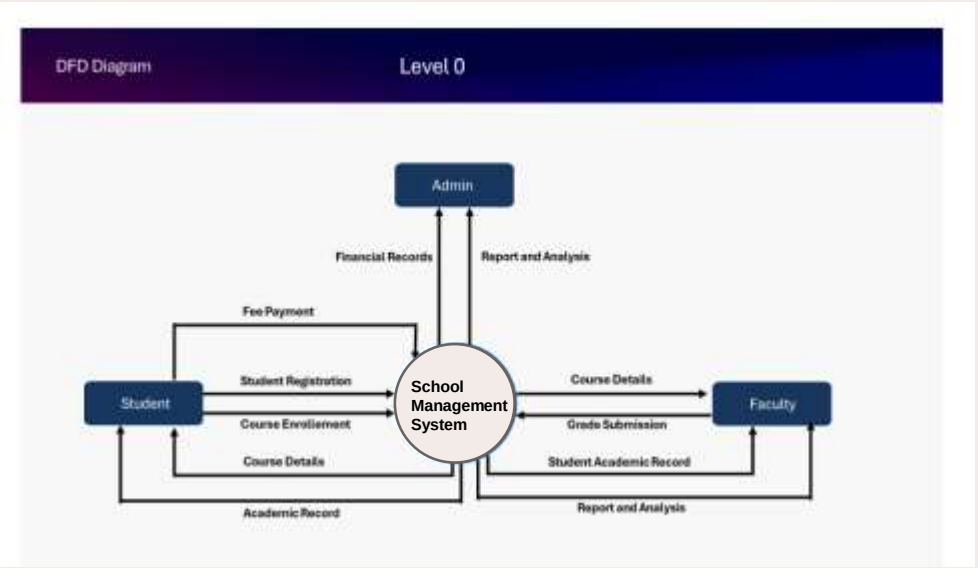
```sql
CREATE TABLE `attendence` (
  `s_no` int(20) NOT NULL,
  `student_id` varchar(40) NOT NULL,
  `attendence` varchar(10) NOT NULL,
  `class` varchar(30) NOT NULL,
  `section` varchar(5) NOT NULL,
  `date` datetime NOT NULL DEFAULT current_timestamp()
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
```

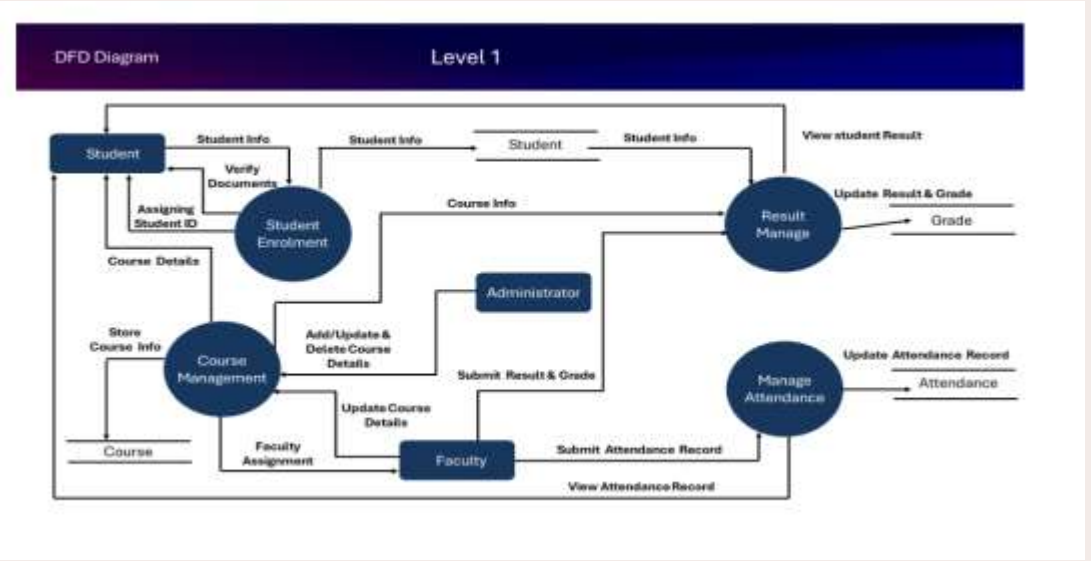
```sql
CREATE TABLE `students` (
  `s_no` int(20) NOT NULL,
  `id` varchar(40) NOT NULL,
  `fname` varchar(100) NOT NULL,
  `lname` varchar(100) NOT NULL,
  `father` varchar(200) NOT NULL,
  `gender` varchar(10) NOT NULL,
  `class` varchar(20) NOT NULL,
  `section` varchar(50) NOT NULL,
  `dob` varchar(15) NOT NULL,
  `image` varchar(50) NOT NULL DEFAULT '1701517055user.png',
  `phone` varchar(15) NOT NULL,
  `email` varchar(100) NOT NULL,
  `address` varchar(200) NOT NULL,
  `city` varchar(50) NOT NULL,
  `zip` varchar(20) NOT NULL,
  `state` varchar(50) NOT NULL,
  `request_date` varchar(30) NOT NULL,
  `request_time` varchar(30) NOT NULL,
  `request` varchar(20) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
```

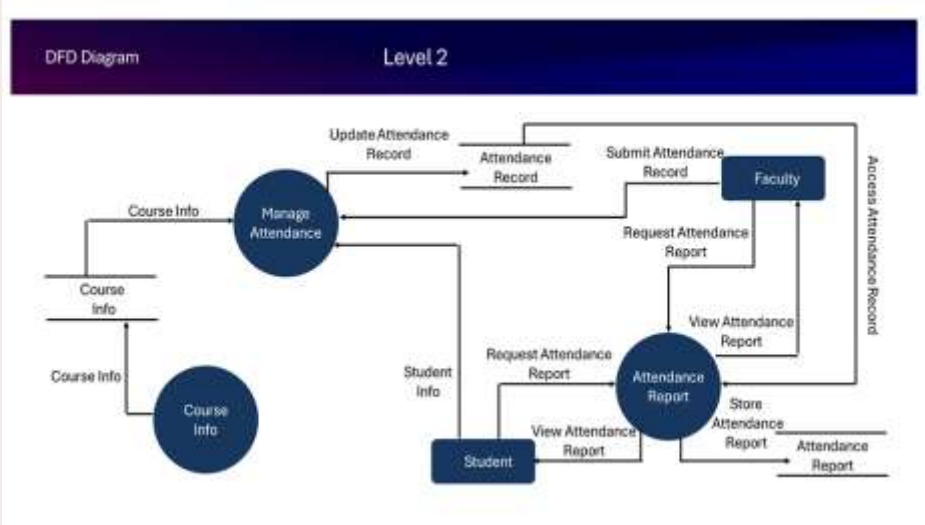
```sql
CREATE TABLE `teachers` (
  `s_no` int(20) NOT NULL,
  `id` varchar(40) NOT NULL,
  `fname` varchar(100) NOT NULL,
  `lname` varchar(100) NOT NULL,
  `father` varchar(150) NOT NULL,
  `subject` varchar(50) NOT NULL,
  `gender` varchar(10) NOT NULL,
  `dob` varchar(20) NOT NULL,
  `image` varchar(30) NOT NULL DEFAULT '1701517055user.png',
  `phone` varchar(20) NOT NULL,
  `email` varchar(50) NOT NULL,
  `address` varchar(512) NOT NULL,
  `city` varchar(50) NOT NULL,
  `zip` varchar(20) NOT NULL,
  `state` varchar(50) NOT NULL,
  `class` varchar(20) NOT NULL,
  `section` varchar(20) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1 COLLATE=latin1_swedish_ci;
```

```sql
CREATE TABLE `time_table` (
  `s_no` int(20) NOT NULL,
  `class` varchar(50) NOT NULL,
  `section` varchar(10) NOT NULL,
  `start_time` varchar(20) NOT NULL,
  `end_time` varchar(20) NOT NULL,
  `mon` varchar(30) NOT NULL,
  `tue` varchar(30) NOT NULL,
  `wed` varchar(30) NOT NULL,
  `thu` varchar(30) NOT NULL,
  `fri` varchar(30) NOT NULL,
  `sat` varchar(30) NOT NULL,
  `editor_id` varchar(40) NOT NULL,
  `timestamp` datetime NOT NULL DEFAULT current_timestamp()
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
```

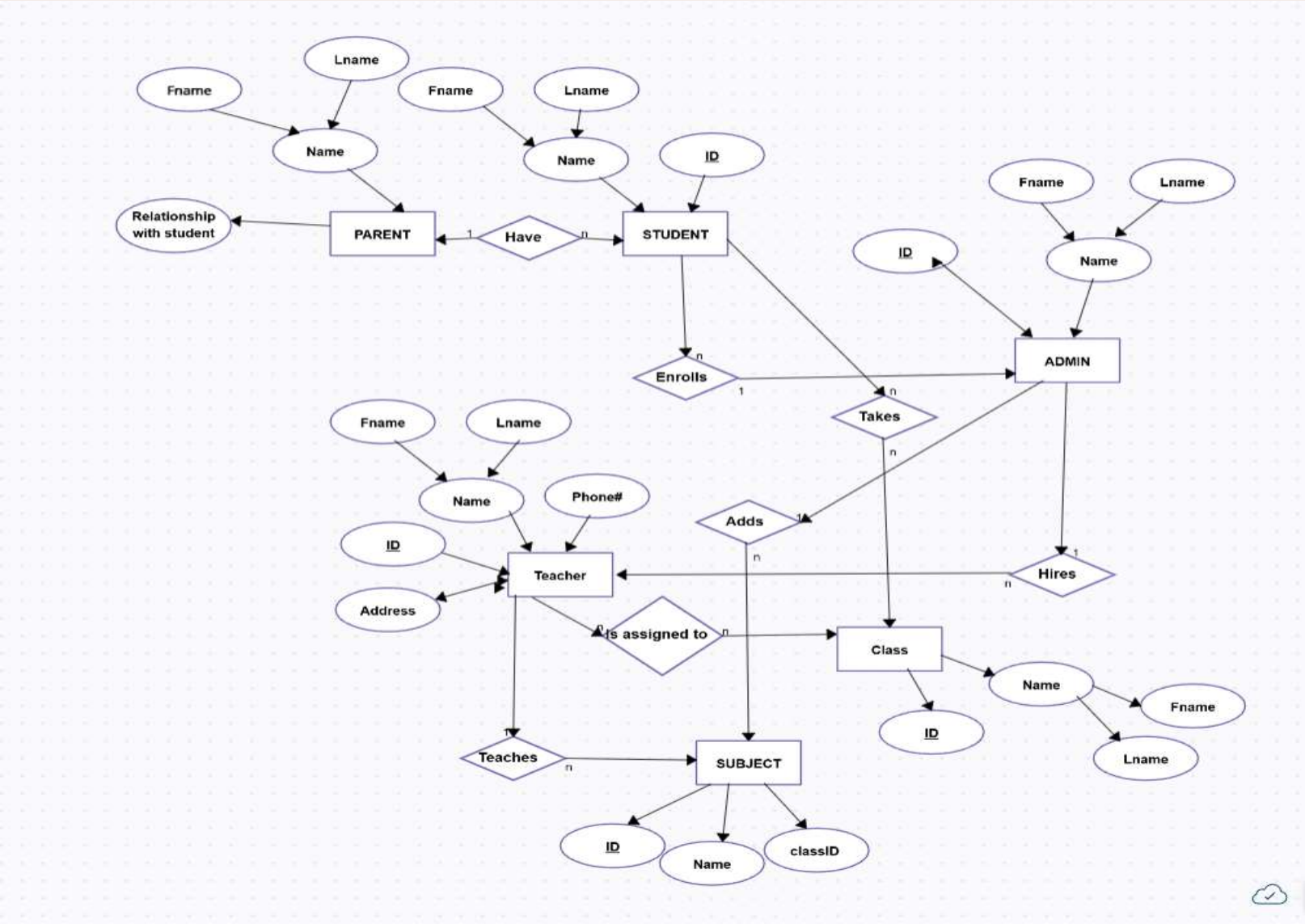
Data Flow Diagram







E-R Diagram

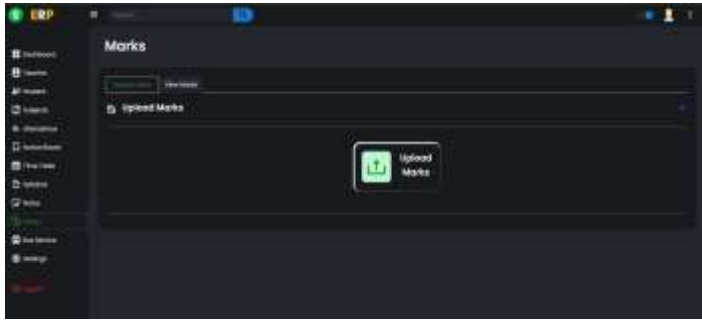

Lname
Fname
Fname
Lname
Name
Name
ID
Fname
Lname
Relationship with student
PARENT
1
Have
n
STUDENT
ID
Name
n
Enrolls
1
ADMIN
n
Takes
Fname
Lname
n
Name
Phone#
Adds
1
ID
n
Teacher
Hires
1
n
Address
n
Is assigned to
n
Class
Name
Fname
ID
Lname
n
Teaches
n
SUBJECT
ID
Name
classID

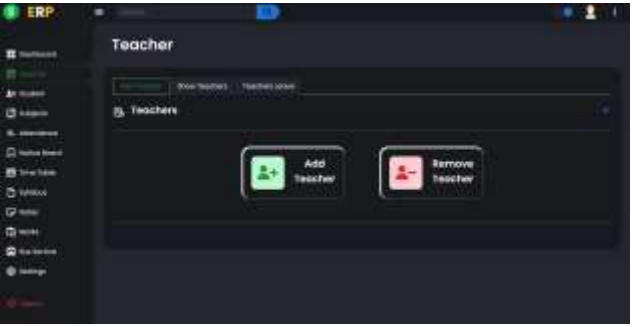
Admin View


ERP
Dashboard
Latest Notices
Reminders


ERP
Subjects
Subjects
Class 12c Subjects


ERP
Time Table
Time Table
Class 12c A

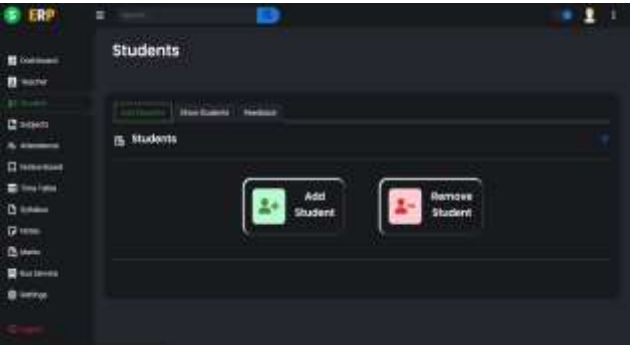

ERP
Marks
Upload Marks
Upload Marks

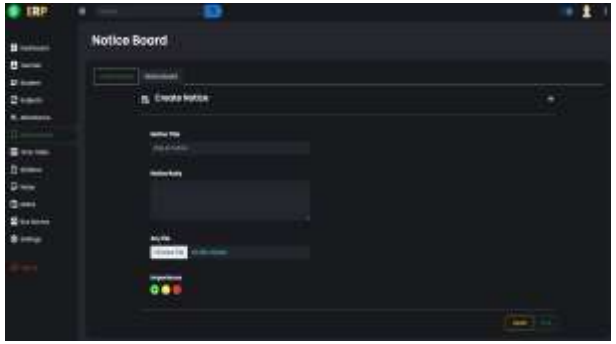

ERP
Teacher
Teachers
Add Teacher
Remove Teacher


ERP
Attendence
Show Attendance
Student List


ERP
Syllabus
Syllabus


ERP
Bus service

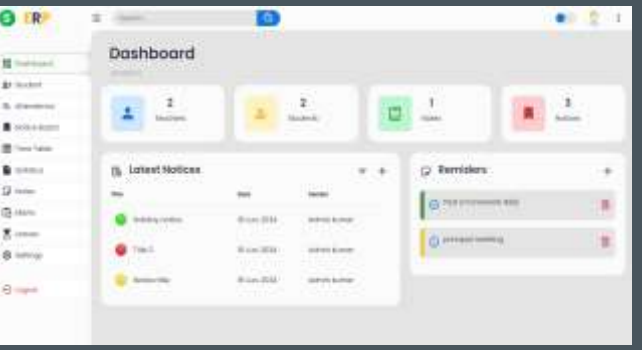

ERP
Students
Students
Add Student
Remove Student

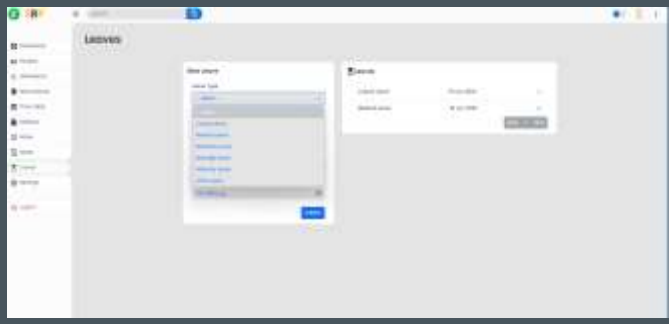

ERP
Notice Board
Create Notice


ERP
Notes
Notes


ERP
Settings
Profile Settings

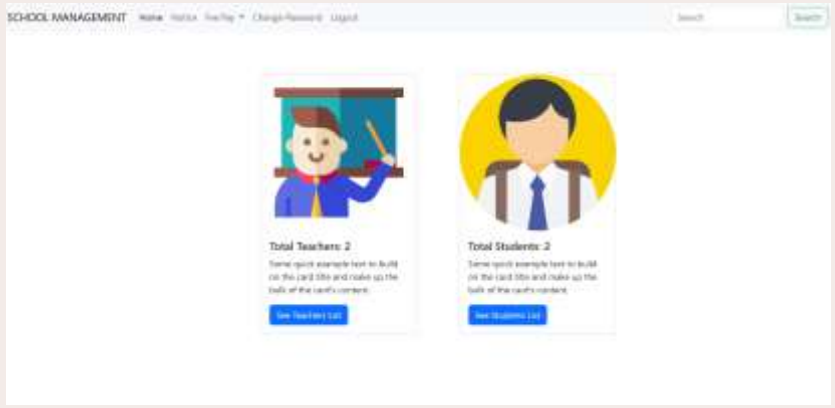
Teacher View

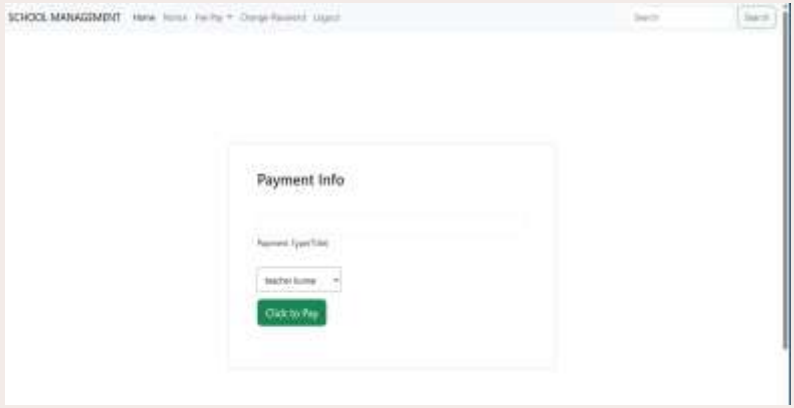


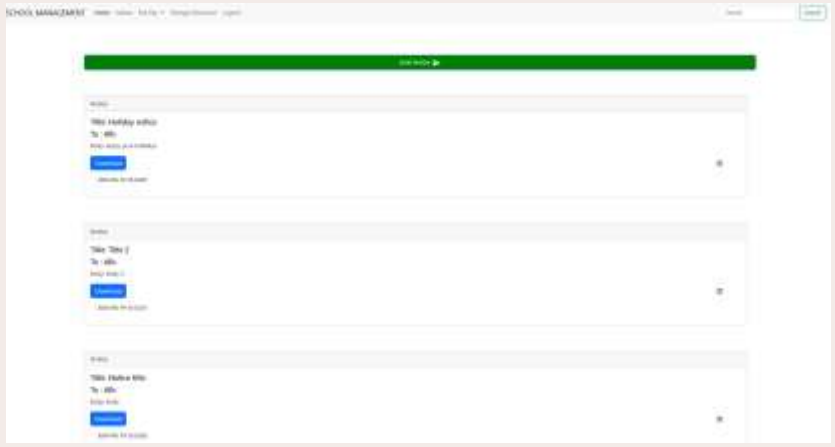


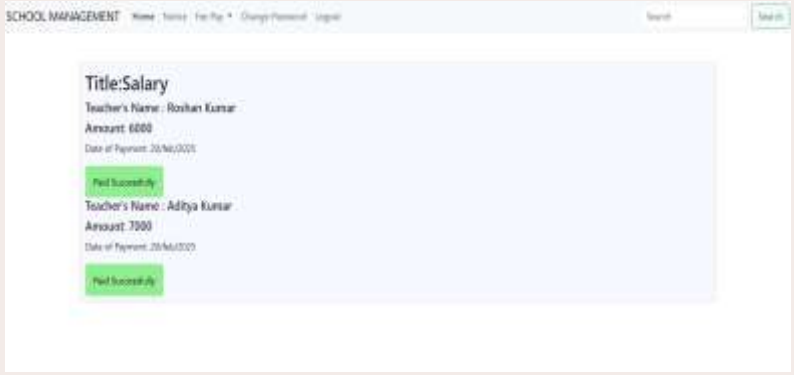
Student View

Owner View









Future Scope

- Mobile App Integration.
- AI-based Performance Tracking.
- Cloud Storage for Scalability.

References & Bibliography

- You Tube
- Books
- GitHub


THANK YOU.