SOFTWARE REQUIREMENT SPECIFICATION
(SRS) BIT - DISCIPLINE

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Project ID	35
Problem Statement	DC enquiry follow up and normal DC related queries

TECHNICAL COMPONENT:

Component	**MERN Stack**
Frontend	React (JS Library for building user interfaces)
Backend	Node.js with Express.js
Database	MongoDB (NOSQL Database)
API	OpenAPI

IMPLEMENTATION TIMELINE:

Phase	Deadline	Status	Notes
Stage 1		Approved	Planning and requirement
Stage 2		In progress	Design and Prototyping
Stage 3		Not Started	DB Designing
Stage 4		Not Started	Backend Implementation
Stage 5		Not Started	Testing & Implementation
Stage 6		Not Started	Deployment

1. INTRODUCTION :

1.1 Purpose :

It outlines the project's scope, detailing the necessary features and functionalities that the system should possess. This includes specifying user roles, such as faculty, administrative staff, students, and parents, and defining the permissions and access each group has. The document also describes the workflow for reporting and handling disciplinary incidents, from initial data entry by faculty members to the administrative review and subsequent actions like fines or suspensions.

1.2. Scope of Project :

This project aims to manage discipline issues within an educational institution, allowing faculty to report incidents and the admin team to take appropriate actions, such as fines or suspensions. The system includes

detailed record-keeping and communication functionalities.

2.SYSTEM OVERVIEW :

2.1 User Roles and Access:

- Faculty Members: Authorized to log in using their institutional email addresses. They can report incidents by providing details such as student information (e.g., name, roll number, branch, year of study), the specifics of the incident (location, date, time, and type), and any additional relevant data.
- Administrative Team: Has access to all reported incidents. They are responsible for reviewing the reports, deciding whether an inquiry is needed, and determining the appropriate disciplinary actions, such as fines, suspensions, or warnings.
- Students and Parents/Guardians: Although they do not have direct access to the system, students and their parents are informed of the outcomes of disciplinary actions through notifications generated by the system.

2.2 Core Features:

- Incident Reporting: A structured form allows faculty to input detailed information about any disciplinary incident, ensuring that all necessary details are captured consistently.
- Incident Management: Admins can review incident reports, track the status of each case, and decide on the necessary actions. The system provides options for fines, suspensions, or other disciplinary measures.
- Notification and Documentation: The system can generate and send notifications to students and parents regarding disciplinary actions. It also supports the downloading and printing of official documents, such as suspension notices.
- Data Security and Privacy: The system ensures that all data is securely stored and accessible only to authorized personnel, protecting the privacy of students and the integrity of the disciplinary process.

2.3 Process Workflow:

- The workflow begins with faculty members reporting an incident, which is then submitted to the system.
- The administrative team reviews the report and decides whether further inquiry is necessary. If an

inquiry is warranted, they proceed to determine the appropriate disciplinary action based on the severity and context of the incident.

- The decision and any related documentation are then communicated to the involved parties, ensuring that students and parents are informed of the outcomes and any required actions.

3.FUNCTIONAL REQUIREMENTS :

3.1 User Authentication and Authorization:

- The system must support login functionality for faculty and administrative staff using their institutional email accounts.
- It must enforce role-based access control, restricting access to certain features based on the user's role (faculty or admin).

3.2 Incident Reporting:

- Faculty must be able to submit a report detailing a disciplinary incident. The report should include fields for:
    - Student details: name, roll number, branch, year of study, mentor, hostel, day scholar status.
    - Incident details: location, date, time, and type of incident.
    - Additional notes or comments.

3.3 Incident Management:

- The admin team must be able to view and manage all incident reports submitted by faculty.
- The system should allow admins to update the status of each report (e.g., under review, resolved).
- It should enable admins to record decisions on disciplinary actions, such as fines, suspensions, warnings, or other measures.
- The system should support recording detailed notes on actions taken and reasons for decisions.

3.4 Notification System:

- The system must automatically generate notifications for students and their mentors regarding disciplinary actions, such as fines or suspensions.
- Notification for admin team before 2 days for the end of the suspension.

3.5 Documentation and Reporting:

- The system should allow the generation of official documents, such as suspension notices, which can be downloaded as PDFs or printed.

4. NON-FUNCTIONAL REQUIREMENTS :

4.1 Performance:

The system should support up to 1,000 simultaneous logins without performance decline.

Most user actions, such as submitting a report or creating a notification, should not take more than 2 seconds to complete.

The system must efficiently manage enormous amounts of data, such as numerous incident reports and records.

4.2 Scalability:

The system should scale horizontally to accommodate more users, data entries, and concurrent activities as the institution grows.

4.3 Reliability and Availability:

Backup and recovery techniques should be reliable to prevent data loss during system failure.

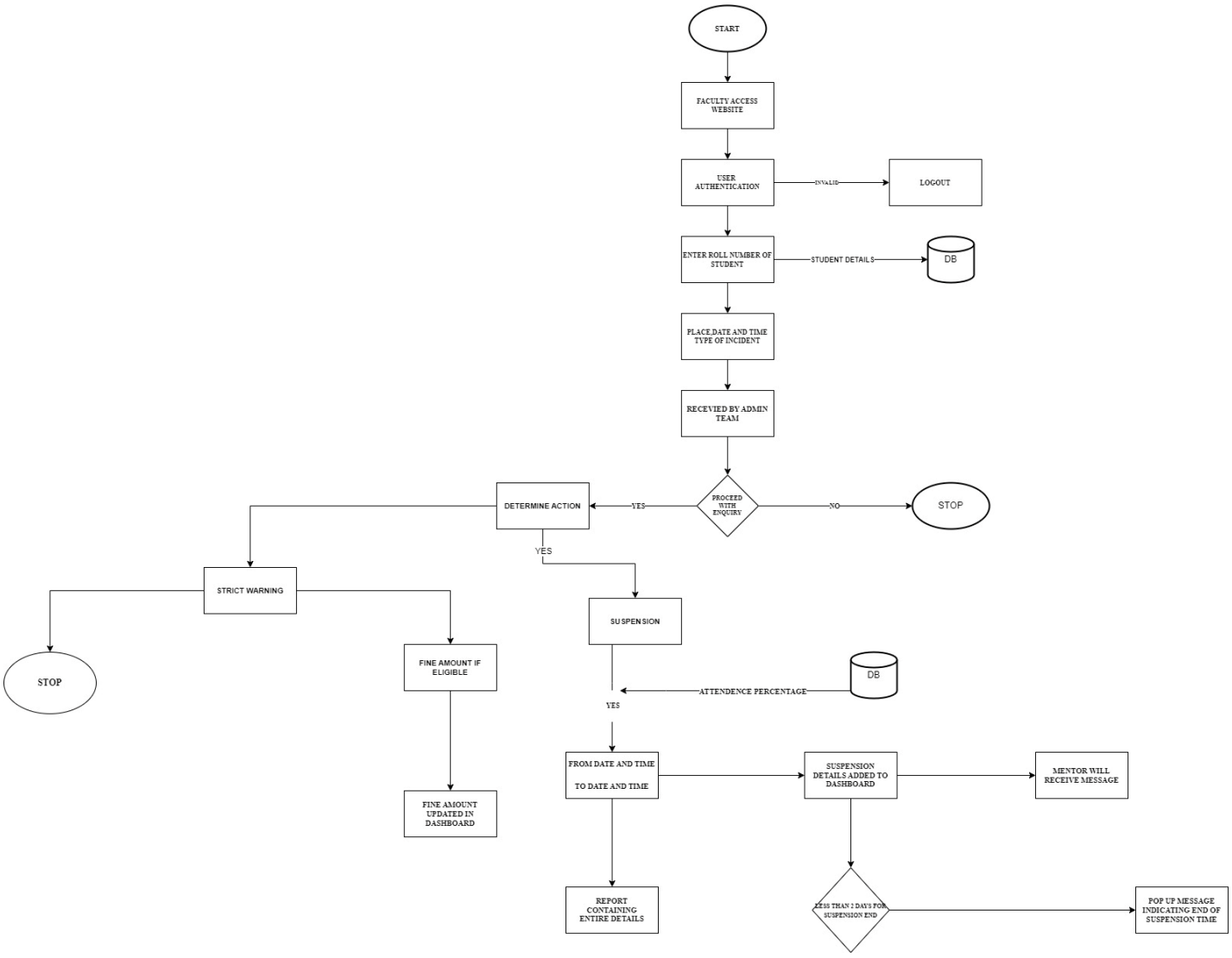
4.4 Security:

Comply with data protection requirements (e.g., GDPR) to secure personal information.

Use secure communication protocols (e.g., HTTPS) to protect data during transit.

To prevent unwanted access, the system should have strong authentication procedures, such as two-factor authentication.

5.FLOWCHART:


START
FACULTY ACCESS WEBSITE
USER AUTHENTICATION
INVALID
LOGOUT
ENTER ROLL NUMBER OF STUDENT
STUDENT DETAILS
DB
PLACE,DATE AND TIME TYPE OF INCIDENT
RECEVIED BY ADMIN TEAM
PROCEED WITH ENQUIRY
YES
NO
STOP
DETERMINE ACTION
YES
STRICT WARNING
STOP
FINE AMOUNT IF ELIGIBLE
FINE AMOUNT UPDATED IN DASHBOARD
SUSPENSION
ATTENDENCE PERCENTAGE
DB
YES
FROM DATE AND TIME
TO DATE AND TIME
SUSPENSION DETAILS ADDED TO DASHBOARD
MENTOR WILL RECEIVE MESSAGE
REPORT CONTAINING ENTIRE DETAILS
LESS THAN 2 DAYS FOR SUSPENSION END
POP UP MESSAGE INDICATING END OF SUSPENSION TIME