SOFTWARE REQUIREMENT SPECIFICATION

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PROJECT ID	3
PROBLEM STATEMENT	Student Activity Log

INTRODUCTION :

This project implements the idea of Tracking the students check in check out and activity logs of individual. When a student visits the anywhere in this campus , they are required to check in using the student tracking system. This system records the student's name, student ID, check-in time, and the purpose of their library visit, whether it is for study, research, or group work. The system then logs the student's activities and the time spent in various areas of the library, such as individual study carrels, group discussion rooms, or the computer lab, as well as any resources they access, like books, databases, or journals. Before checking out, the student must submit a brief report on the work they accomplished during their incharge, detailing the tasks completed, the progress made on their studies or research, and any insights or findings. When the student is ready to leave, they check out, and the system records the check-out time and the duration of their visit. The incharge reviews the student's check-in/check-out records and work progress report. If the incharge is satisfied with the student's activities and productivity, they will approve the record. However, if the incharge has any concerns or feedback, they can add remarks to the student's record, which will be visible to the student and the administration.

SCOPE OF THE PROJECT :

Admins will have access to a centralized dashboard displaying all student details, including activity logging, time duration, incharge approvel or rejection, remarks

of rejection, and self-reported performance. Further, the system will allow admins to check the performance of the students. This allows admins to easily identify the students activities.

FEATURES OF THE PROJECT

1. STUDENT SUBMISSION:

- Student arrives at the specific place , Student uses the system to check in (enters ID, selects check-in option).
- System records check-in time and updates database.
- Activity Logging During their stay, students may log activities (e.g., studying, group work, using computer resources).
- System records activities and updates database in real-time.
- Student checks out when leaving.
- System records check-out time and updates database.

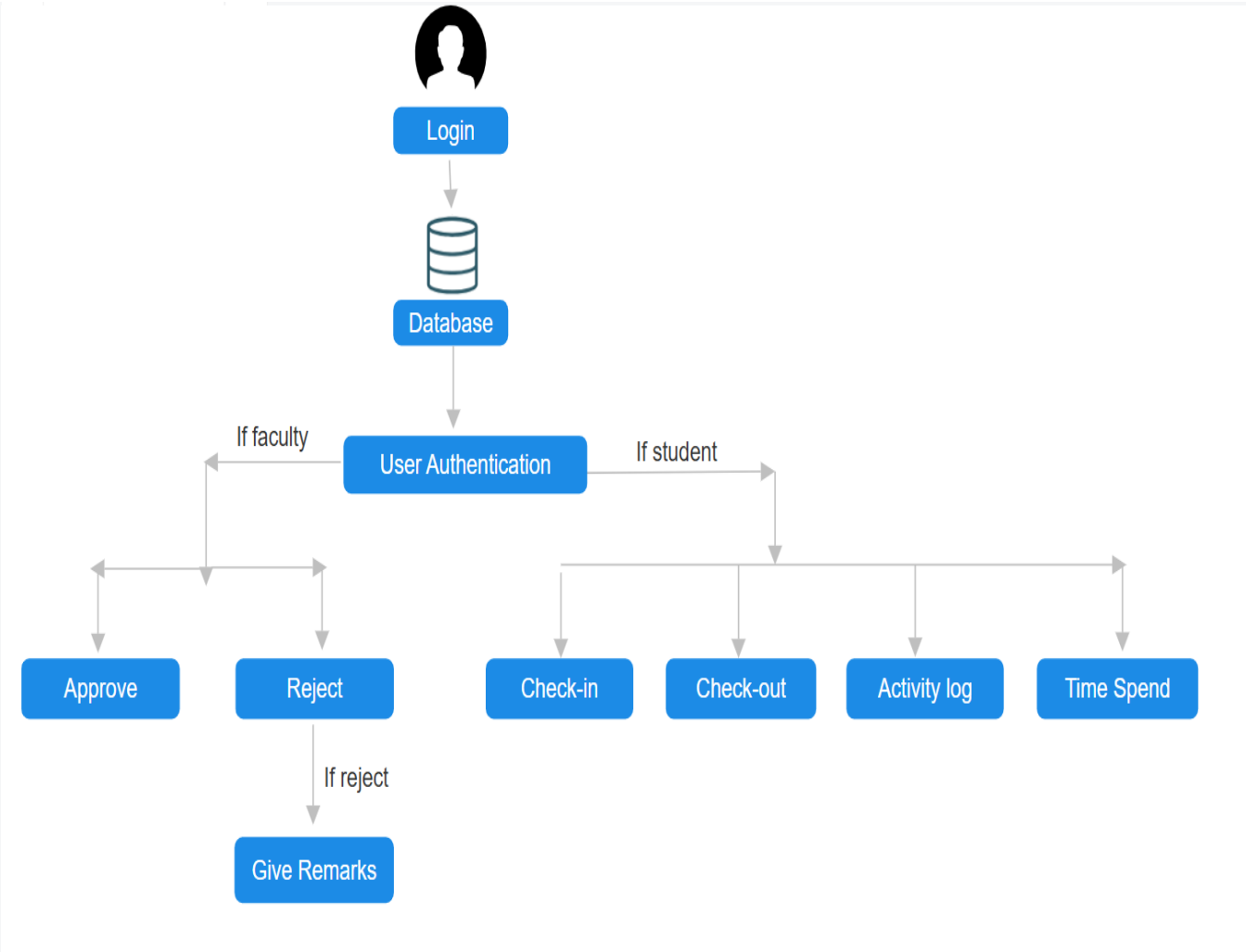
2. STAFF VERIFICATION:

- Library staff receives notification of a student check-out. Staff reviews the student's activity log.
- Staff approves or rejects the check-out. If approved, System records approval and logs the time spent and activities.
- If rejected, Staff provides remarks explaining the rejection.
- System records rejection and remarks.
- System updates database with approval status and any remarks.

3. ADMIN OVERSIGHT:

- Administrators have access to a centralized dashboard displaying all student check -in and check-out details. This includes Check-In/Check-Out, Activity logging, Activity proof submission and self-reported activity.

PROJECT FLOW :



FUNCTIONAL REQUIREMENTS

1. **STUDENT:**

- **Check-In/Check-Out:** Students can check in and check out using the system to log their presence. This allows the system to track attendance and the time spent on various activities.
- **Activity Logging:** Students can log their activities during their stay. This includes selecting from predefined activities (e.g., studying, group work, using computer resources) and entering details if needed.
- **Activity Proof Submission:** Students can upload various file formats (documents, images) to demonstrate their participation in activities or

projects. This ensures that their engagement is documented and can be reviewed later.

- **Self-Reported Activity:** Students can submit reports on their activities, including the time spent and the outcomes achieved. This allows them to reflect on their engagement and provide initial self-assessment of their performance.

2.STAFF:

- **Verification and Assessment:**

Faculty members can review the activity logs and self-reported performance submissions of students. This verification ensures the authenticity and accuracy of the recorded activities and self-assessments.

- **Approval or Rejection:**

Faculty members can approve or reject the recorded activities and self-reported performance. In case of rejection, faculty must provide remarks explaining the reasons for the decision.

3.ADMIN:

- **Centralized Dashboard:**

Administrators have access to a centralized dashboard displaying all student details, including check-in/check-out times, activity logs, and faculty approvals or rejections.

- **Filtering System:**

Admins can filter student data based on various criteria, such as activity types, duration, and performance. This enables targeted analysis and supports decision-making for academic and administrative purposes.

- **Reporting Functionality:**

The system provides the ability to generate reports summarizing student activities, time spent, and faculty assessments. Reports can highlight top performers and overall usage statistics to assist in strategic planning and resource allocation.

NON FUNCTIONAL REQUIREMENTS

1. SCALABILITY

- The Tracking the students check in check out and activity logs of individual website is built to grow with user needs. As more students join, the website remains efficient, handling increased traffic smoothly.

- This scalability ensures the website stays reliable and responsive, no matter how many users or data it handles.

2. SECURITY

- To keep data safe, we use MongoDB to store it securely. We also use a hash algorithm to protect passwords.
- This means that passwords are converted into a special code that's hard to decode.
- By doing this, even if someone gets access to the database, they can't easily see the passwords.
- This helps to keep user accounts and their information safe from unauthorized access.

3. PERFORMANCE

- It takes a few seconds for students to be able to log in.
- To provide seamless platform access, the system handles their login request during this time.
- To execute authentication and security checks and make sure that only authorized users may access the platform, a waiting period is required.
- Students can log in and use the platform's features and services after the waiting period has ended.

STACK :

Frontend	Angular
Backend	Node js & Express js
Database	Mongo DB
Restful API	AXIOS