

Project Overview

CheckIT

1. Introduction:

Managing student attendance efficiently is a crucial aspect of academic institutions, ensuring discipline and monitoring student engagement. The CheckIT is a web-based ERP solution designed to ease the task of faculty members and students of IT Department. Traditionally, faculty members manually record attendance, which is often time-consuming and prone to errors. This system digitizes the process by integrating Google Forms for attendance collection, providing real-time tracking, and offering automated notifications.

Faculty members can manage their subjects, lecture schedules, and attendance records, while students receive alerts if their attendance falls below the required threshold. This system enhances transparency and accuracy, making it easier for both faculty and students to monitor attendance and take necessary actions.

2. Objective:

- To develop a centralized attendance management system for IT department students.
- To automate attendance tracking through Google Forms integration.
- To generate real-time notifications for faculty and students regarding lectures and attendance status.
- To provide analytics and reports on attendance trends for better decision-making.
- To ensure secure and role-based access control for faculty and students.

3. Applications:

- **Educational Institutions:** Colleges and universities can use this system to manage student attendance efficiently.
- **Faculty Management:** Helps faculty track attendance records and receive reminders about scheduled lectures.
- **Student Monitoring:** Provides students with real-time updates on their attendance status and alerts when attendance is low.
- **Administrative Use:** Enables department heads to monitor attendance trends and generate reports for academic planning.

4. Tools and Technology requirements:

- Frontend: HTML, CSS, JavaScript (React.js)
- Backend: Node.js, Express.js
- Database: MySQL, Firebase

- Google Integration: Google Forms API, Google Sheets API
- Notification System: Firebase Cloud Messaging (FCM)

REFERENCES:

- [1] Google Forms API Documentation
- [2] Firebase Documentation
- [3] MySQL Official Guide
- [4] React.js/Angular Official Documentation
- [5] Node.js/Express.js/Django Tutorials

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