AttendEase – Intelligent Attendance System with Multi-Source Verification and Parent Notification via WhatsApp

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Abstract: *The AttendEase Hostel Attendance System, developed by Mr. Narendra V. Palse and team, provides a comprehensive digital solution for automating and managing hostel attendance in educational institutions. Focused on modernizing attendance tracking, the system integrates biometric authentication with real-time verification and multi-source data validation, including leave requests and library presence.*

By leveraging robust web technologies like React.js, Express.js, MySQL, and biometric hardware, AttendEase ensures scalability, security, and user-friendliness. Its integration with AiSensy enables automated WhatsApp/SMS notifications to students and parents, promoting accountability and transparency.

The project was implemented following a structured methodology that included problem identification, system design, simulation testing, and interface development. The results highlight improved efficiency in hostel operations and significant reduction in manual errors. Future enhancements include full-scale hardware deployment, analytics integration, and broader institutional adoption. AttendEase marks a notable advancement in hostel management, setting a benchmark for smart campus infrastructure.

Keywords: Biometric Attendance System, Hostel Management, Real-Time Notifications, Student Monitoring, AiSensy API, React.js, Express.js, Educational Technology