

QR Code Based Attendance System

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Abstract: *This project presents the development of a QR Code Based Attendance System using Java with JSP, HTML, CSS, and JavaScript for frontend development and MySQL for database management. The system facilitates efficient tracking of student attendance while ensuring authentication and preventing unauthorized access. The system comprises two main entities: Student and Staff. Students register by providing comprehensive details including Roll Number, Year, Department, Photo, Name, email id, phone number, address, and password. However, student login access is granted only after staff verification and approval, preventing anonymous access. Upon approval, students can log in to the system and download their ID Card containing a unique QR code. This QR code serves as a means for students to mark their attendance by presenting the ID card to a webcam. The system distinguishes between valid and invalid QR codes, ensuring accurate attendance recording. Additionally, a picture is captured each time attendance is marked, facilitating later verification if needed. Students have access to their attendance logs, allowing them to monitor their attendance record. Staff members can easily calculate student attendance by selecting the student and month, with the system providing the total number of days present. Moreover, staff can view attendance logs for all students, complete with attendance pictures, ensuring comprehensive monitoring and record-keeping. Overall, the QR Code Based Attendance System offers a convenient and secure method for managing student attendance, promoting accountability and efficiency in academic institutions*

Keywords: QR Code Attendance, Java JSP, Student Authentication, MySQL Database, Web-based System, Academic Monitoring, Image Capture, Secure Access

