

QR Code Based Student Attendance System

Rushikesh N. Khairnar¹, Sachin G. Ingale², Aditya S. Nichit³, Rohit S. Barse⁴, Prof. P. U. Mandlik⁵

Department of Computer Engineering^{1,2,3,4,5}

Matoshri Aasarabai Polytechnic, Eklahare, Nashik, Maharashtra, India

Abstract: *The QR Code-Based Student Attendance System is a comprehensive solution designed to streamline attendance management for educational institutions. This system offers a web-based interface for admin and teachers, as well as an Android application for students, ensuring ease of use and efficiency. On the web platform, admin have full control over the system, allowing them to add, view, and delete class records, manage teacher and student profiles, generate unique QR codes for each class, and view attendance reports. Teachers can log in to the system to monitor and review student attendance. The Android application provides students with a simple interface where they can log in, scan their class-specific QR code, and mark their attendance. The system also verifies the student's location to ensure they are within the premises, adding an extra layer of security. Students can also view their own attendance history directly within the app. This system eliminates manual processes, reduces paperwork, and enhances accuracy in attendance tracking, making it a valuable tool for modern educational environments. It improves transparency and accuracy by providing instant feedback to both students and admin, ensuring that attendance records are up-to-date and easily accessible. This approach also reduces the risk of fraudulent attendance marking, as the QR codes are unique and can only be scanned by authorized devices. The QR code-based student attendance system offers a reliable, cost-effective, and scalable solution for educational institutions to manage attendance more effectively.*

Keywords: Java, Web Application, QR code, Attendance system, Student, Teacher, Admin