GPS Based Attendance System

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**Abstract**

The "GPS-Based Attendance System" is a modern solution crafted using the MERN stack, designed to simplify the hassle of attendance tracking. Our goal with this project is to revolutionize attendance management by utilizing the familiar technology of GPS and the unique MAC addresses of users' devices. When a user signs up, their device's MAC address is securely stored in our database for future authentication. During login attempts, we ensure the legitimacy of the user's device by verifying its MAC address against the stored one, ensuring only authorized devices gain access. To prevent misuse, we've integrated real-time location tracking, allowing us to verify that the user is within the specified range set by the administrator before allowing attendance marking. This innovative feature not only enhances security but also ensures the accuracy of attendance records. With our system, organizations can bid farewell to manual attendance processes and embrace a seamless, reliable, and efficient solution that saves time and reduces administrative burden. By harnessing GPS technology and real-time location tracking, our "GPS-Based Attendance System" aims to redefine attendance management, offering a user-friendly and robust solution for modern organizations..