EduTrack – Smart Geo-based Attendance System

A comprehensive automated attendance tracking app using GPS and QR verification.

# Team

Team Leader: Sandipan Das

Team Members: Soumadip Santra, Bishak Kitra, Sirdhatto Dey

# Core Features

• Geo-based Automatic Attendance

• QR Code Verification System

• Role-based Secure Login

• Admin Dashboard & Analytics

• Push Notifications for Alerts

• Attendance Reports Export (PDF/Excel)

• LMS/ERP Integration

• Customizable Geofence Radius

• Offline Sync Support

• AI-based Proxy Detection (Future)

• Facial Recognition (Future)

# Technology Stack

Frontend (Mobile): React Native (Expo)

Backend: Node.js + Express

Database: Firebase Firestore / MongoDB Atlas

Authentication: Firebase Auth

Maps/Geo APIs: Google Maps API / Expo Location

QR Code: react-native-qrcode-svg & Expo Camera

Push Notifications: Expo Notifications

Admin Dashboard: React.js / Next.js

Hosting: Firebase / AWS / Vercel

# Future Enhancements

• Facial Recognition Attendance

• Parent Notification System

• AI-based Proxy Detection

• Offline Caching & Syncing

# Conclusion

EduTrack provides a secure, scalable, and modern approach to attendance tracking, designed to enhance transparency and reduce manual intervention.