# 🔐 SecureAccess App

## 📘 Project Description

SecureAccess is a mobile-first application designed to enhance physical and digital security for small to mid-sized organizations. It integrates proximity card authentication, secure login protocols, and real-time access monitoring to ensure only authorized users can access protected zones or resources.

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## 🚨 Problem Addressing

Organizations face increasing threats from unauthorized access and outdated authentication systems. SecureAccess solves this by:

- Replacing legacy access systems with proximity card and biometric verification.

- Implementing secure login protocols (2FA, input validation).

- Providing centralized dashboards for access monitoring and audit trails.

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## 🧱 Platform

- \*\*Primary\*\*: Android (Kotlin/XML)

- \*\*Secondary\*\*: Web dashboard (Power BI)

- \*\*Tools Used\*\*: Android Studio, Firebase, GitHub, Power BI

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## 🖥️ Front-End / Back-End Support

### Front-End

- Android UI built with Kotlin and XML

- Responsive wireframes focused on usability and accessibility

- Key screens: Login, Access Request, Admin Dashboard, User Profile

### Back-End

- Firebase Authentication and Firestore

- RESTful APIs for access validation and logging

- Encryption for data-in-transit and at-rest

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## ⚙️ Functionality

- Secure login with proximity card ID and optional biometric verification

- Role-based access control for zones/resources

- Real-time monitoring and alerts via admin dashboard

- Immutable audit logs for compliance

- Offline mode with credential caching

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## 🎨 Design (Wireframes)

Wireframes were created using Figma and implemented in Android Studio. Key design principles include:

- Clean layout and intuitive navigation

- Security-first UI/UX

- Screens include:

- Login & Authentication

- Access Request & Approval

- Admin Dashboard

- User Profile & Settings

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## 📁 Repository Structure