



Automotive Protective Guard



Mobile Computing Project

4th Year Computer Engineering

Team members:

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1. Application Overview:

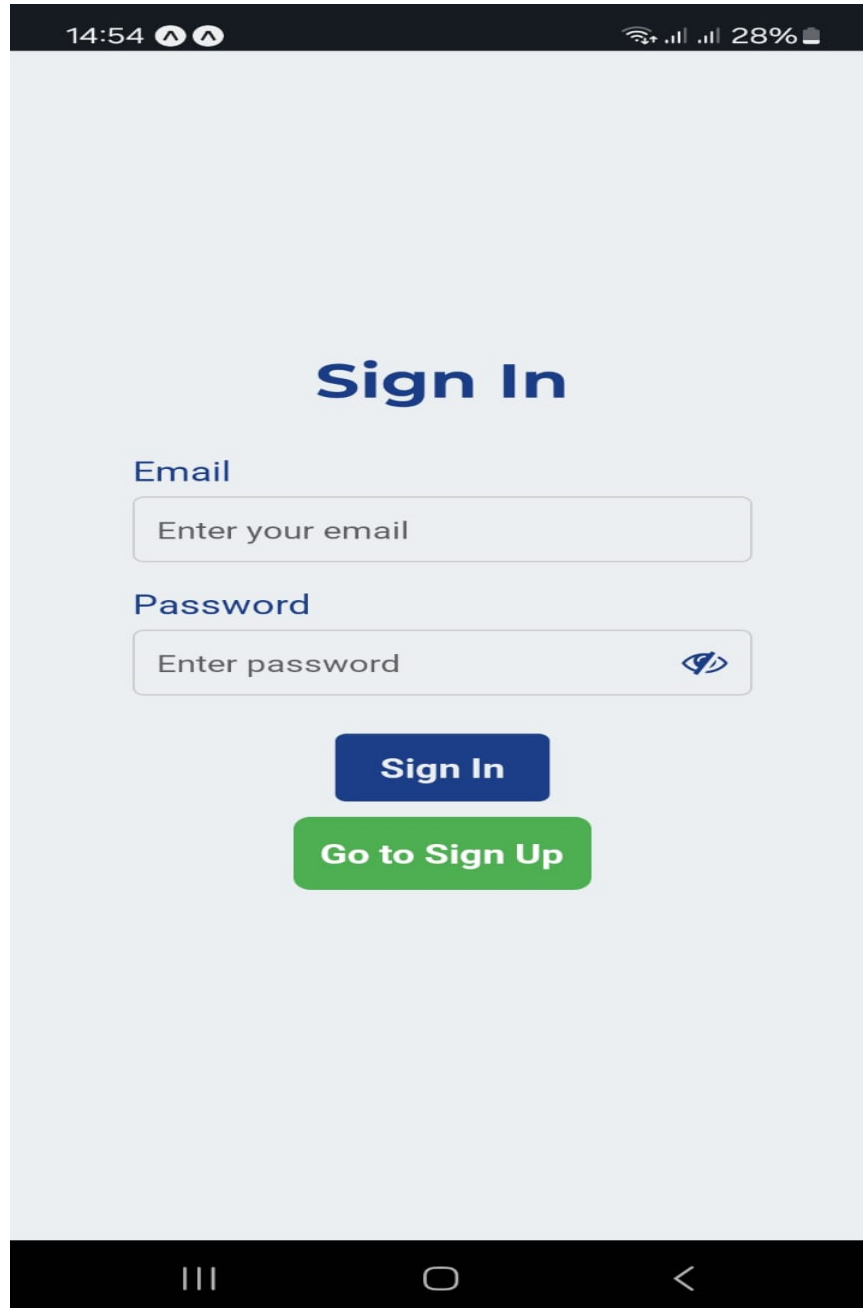
This React Native application is an Intrusion Detection System (IDS) mobile app that provides a dashboard for monitoring security alerts, viewing attack logs, managing settings, and handling user authentication. The app uses React Navigation for screen navigation, Expo for font loading and notifications, Firebase as a database for storing and retrieving user data and security logs, and a custom theme context for light/dark mode support. It is designed to be user-friendly, with a focus on performance and responsiveness.

2. Key Features

- **User Authentication:** Screens for signing in (**SignIn**) and signing up (**SignUp**).
- **Dashboard:** Displays an overview of IDS alerts (**Dashboard screen**).
- **Alert Details:** Provides detailed information about specific alerts (**AlertDetails screen**).
- **Attack Logs:** Shows a history of detected attacks (**Logs screen**).
- **Settings:** Allows users to configure the app and edit their password (**Settings and Edit Password screens**).
- **Push Notifications:** Handles notifications for alerts, navigating to the **AlertDetails screen** when tapped.
- **Theming:** Supports light and dark themes via a custom Theme Provider.
- **Custom Fonts:** Loads Montserrat and Roboto fonts for consistent typography.
- **Smooth Navigation:** Uses stack navigation with fade transitions for a seamless user experience.

3. App. Flow:

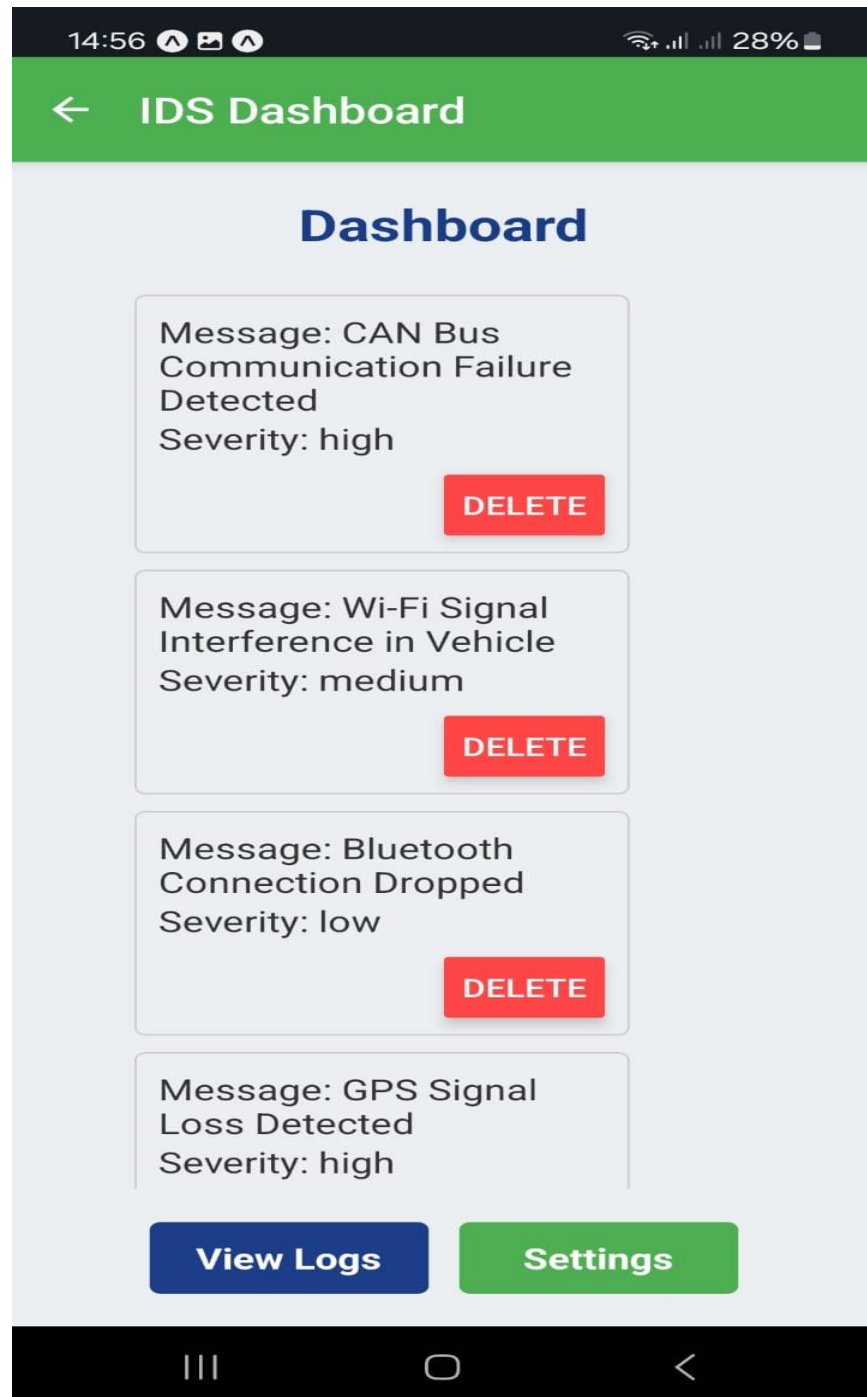
- a. It starts with **sign_in** page so user authenticates its account to begin see his da



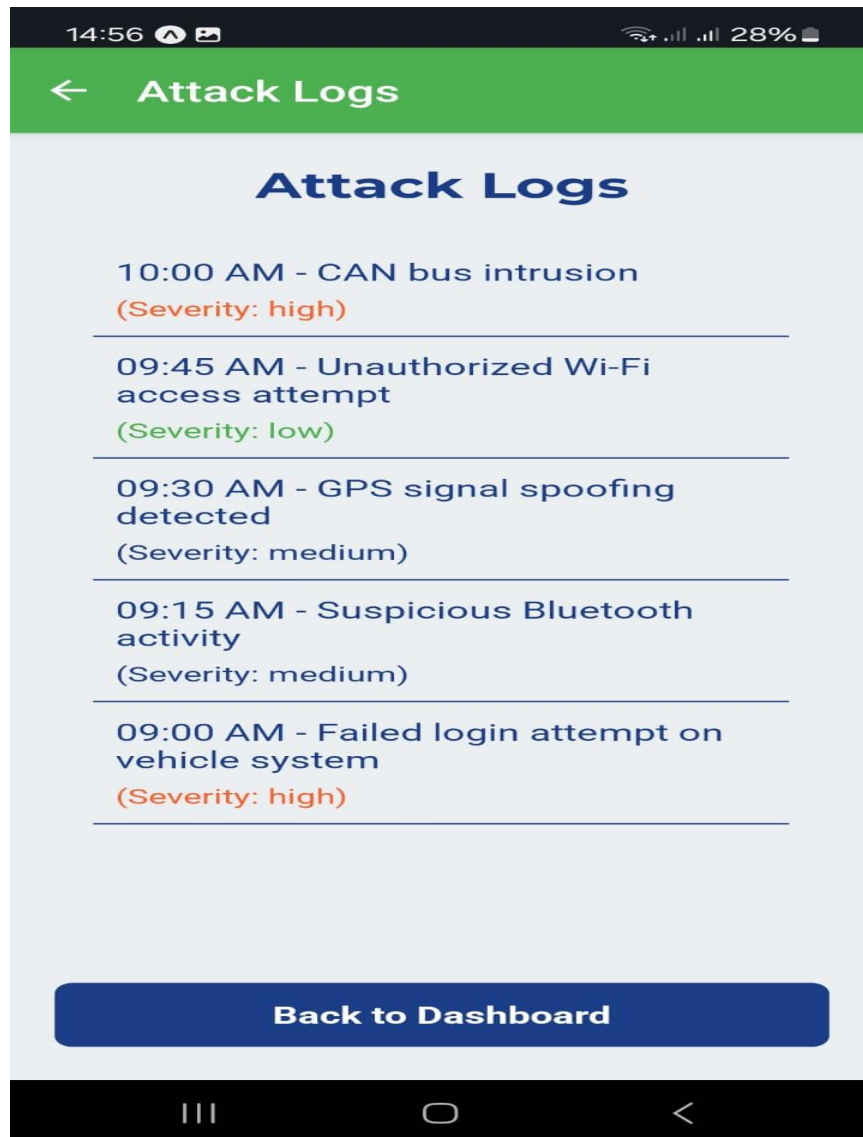
The image shows a mobile application interface for signing in. At the top, a status bar displays the time 14:54, two notification icons, and a battery level of 28%. The main content area has a light blue background. In the center, the text "Sign In" is displayed in a large, bold, dark blue font. Below this, there are two input fields. The first is labeled "Email" in a smaller blue font, with a placeholder text "Enter your email" inside a white rounded rectangle. The second is labeled "Password" in a smaller blue font, with a placeholder text "Enter password" inside a white rounded rectangle. To the right of the password field is a blue eye icon for toggling visibility. Below the input fields are two buttons: a dark blue button labeled "Sign In" and a green button labeled "Go to Sign Up". At the bottom of the screen is a black navigation bar with three white icons: a hamburger menu, a home button, and a back arrow.

b. **dashboard screen:** here where all alerts coming to user detected by the IDS appears and help to manage it if he wants more info. About certain alert or delete it, it also contains buttons for:

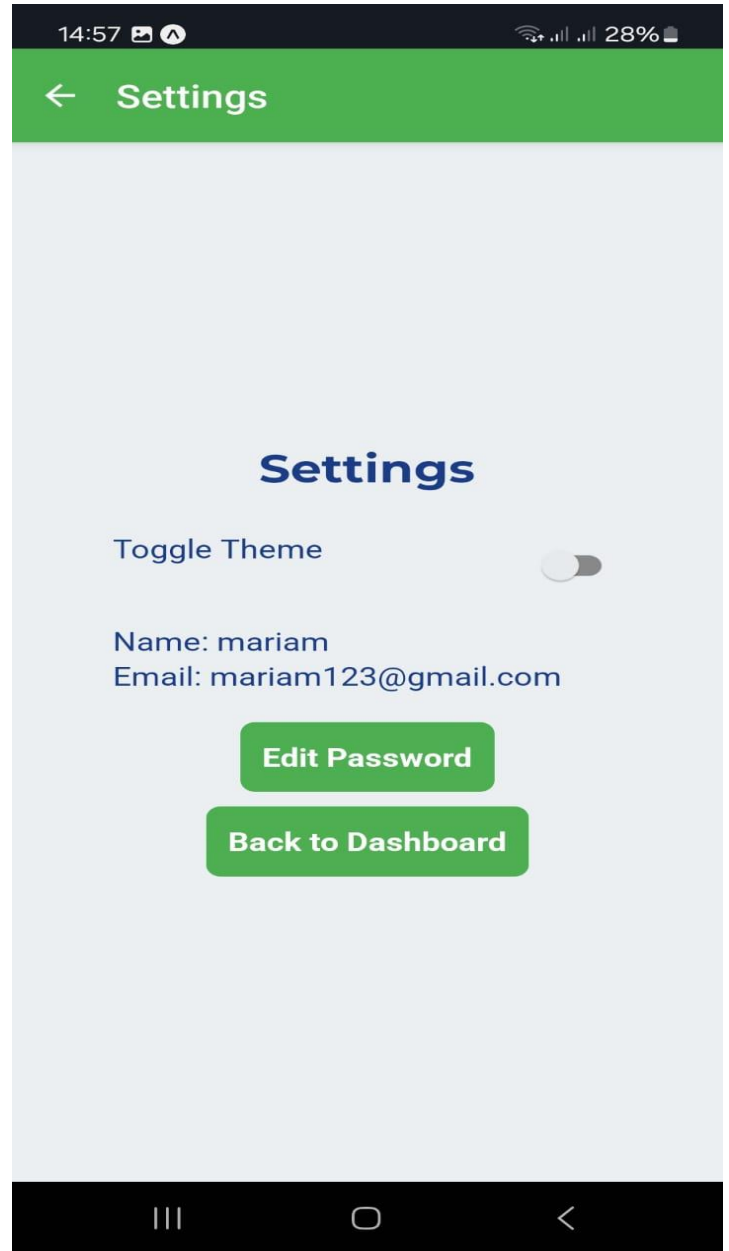
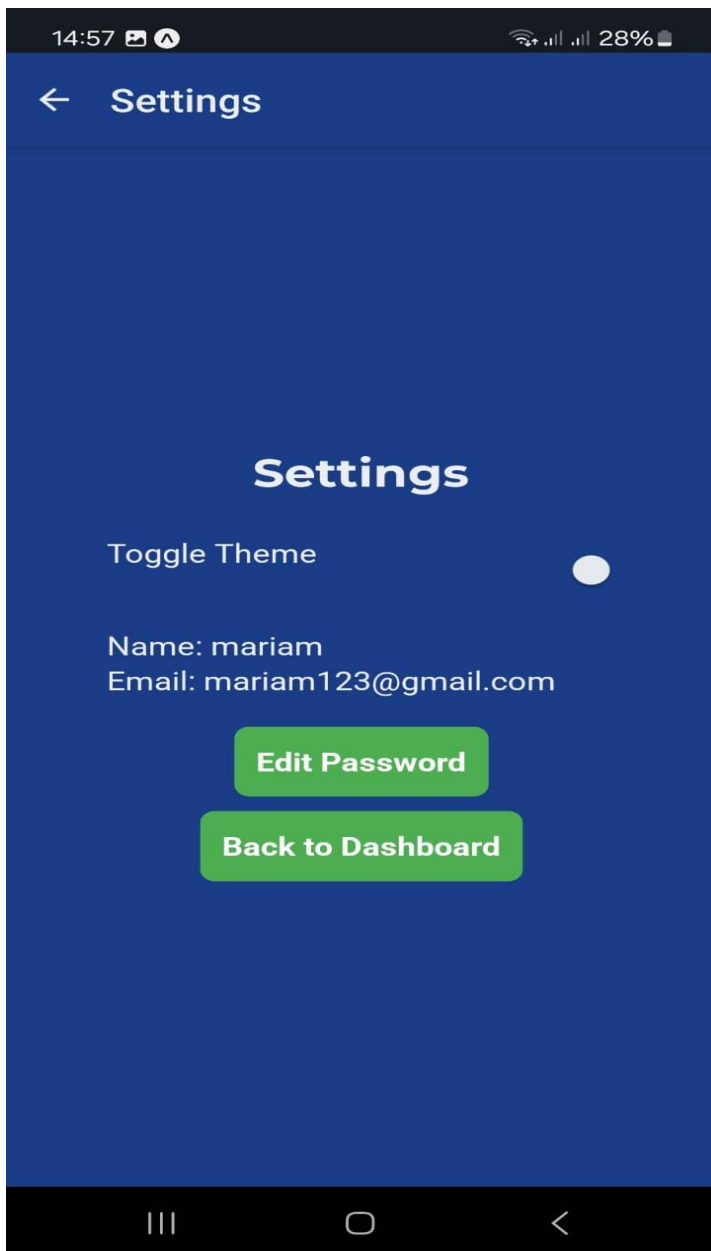
- i. **Attack logs screen.**
- ii. **Settings.**
- iii. **Goback.**



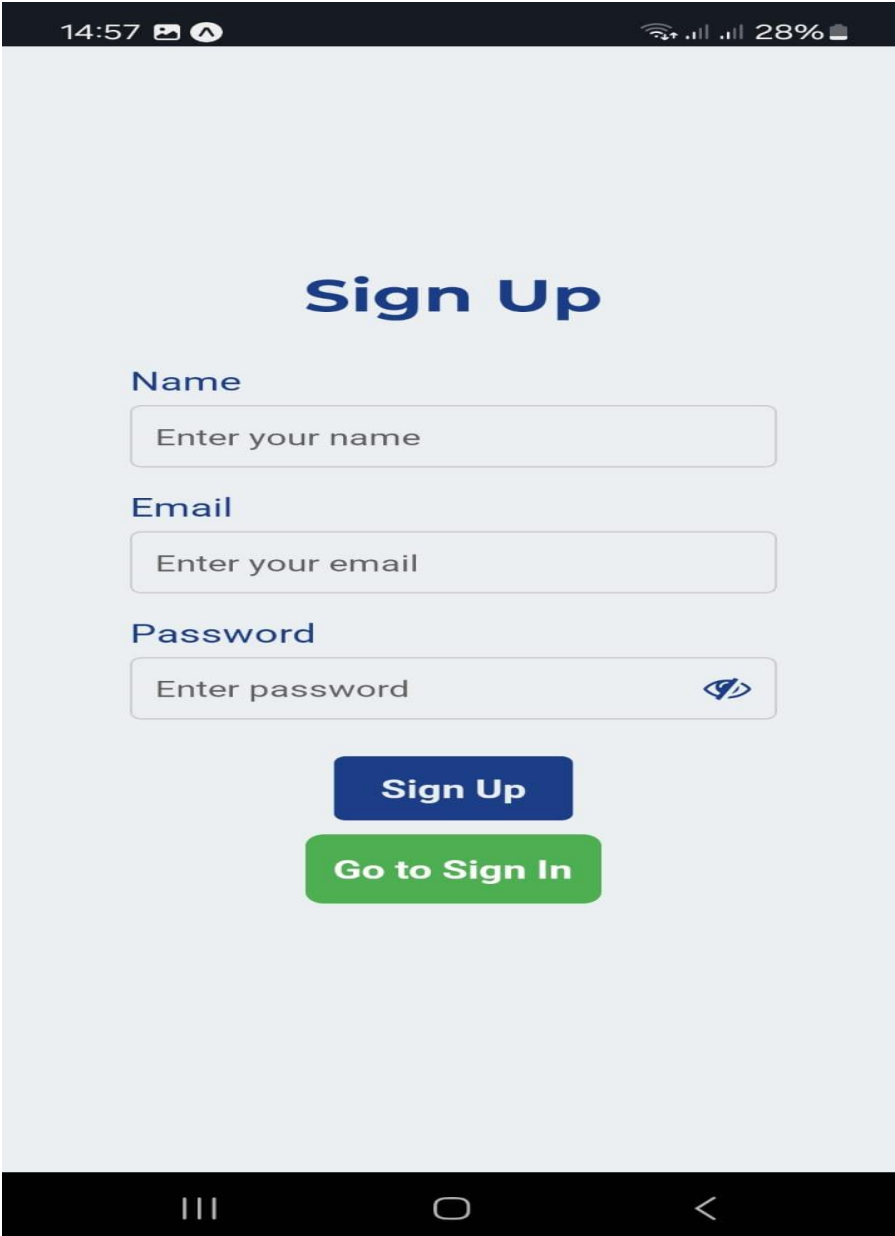
- c. **Attack logs Screen:** here where all attacks are saved with their timestamp and details about the attack and its severity what it is exactly.



- d. **Setting:** where user controls the app theme and shows current user data and be able to change his credentials.



- e. **Sign up:** here the user can create new user which will receive the alerts detected afterward.



A mobile application interface for a sign-up screen. The screen has a light blue background. At the top, there is a dark status bar with the time 14:57, signal strength, and 28% battery. The main heading is "Sign Up" in a large, bold, dark blue font. Below the heading are three input fields: "Name" with the placeholder "Enter your name", "Email" with the placeholder "Enter your email", and "Password" with the placeholder "Enter password" and a small eye icon to toggle visibility. Below the input fields are two buttons: a dark blue "Sign Up" button and a green "Go to Sign In" button. At the bottom, there is a dark navigation bar with three icons: a hamburger menu, a home button, and a back arrow.

14:57 28%

Sign Up

Name

Email

Password

Sign Up

Go to Sign In

f. **Edit password:** here the user can change his password at any time.

14:57 28%

← Edit Password

Edit Password

Current Password

Enter current password

New Password

Enter new password

Update Password

Back

4. Flow Diagram:

