LogiTrack

Subject: Android Development

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Project Objectives

◎ Core Mission

To digitize and streamline the logistics supply chain by connecting Vehicle Owners and Logistic Owners on a single, unified platform.

🔑 Key Goals

- Implement secure, role-based access control.
- Provide real-time transparency in load booking.
- Simplify navigation and route planning for drivers.

# Authentication & Roles

Secure Entry
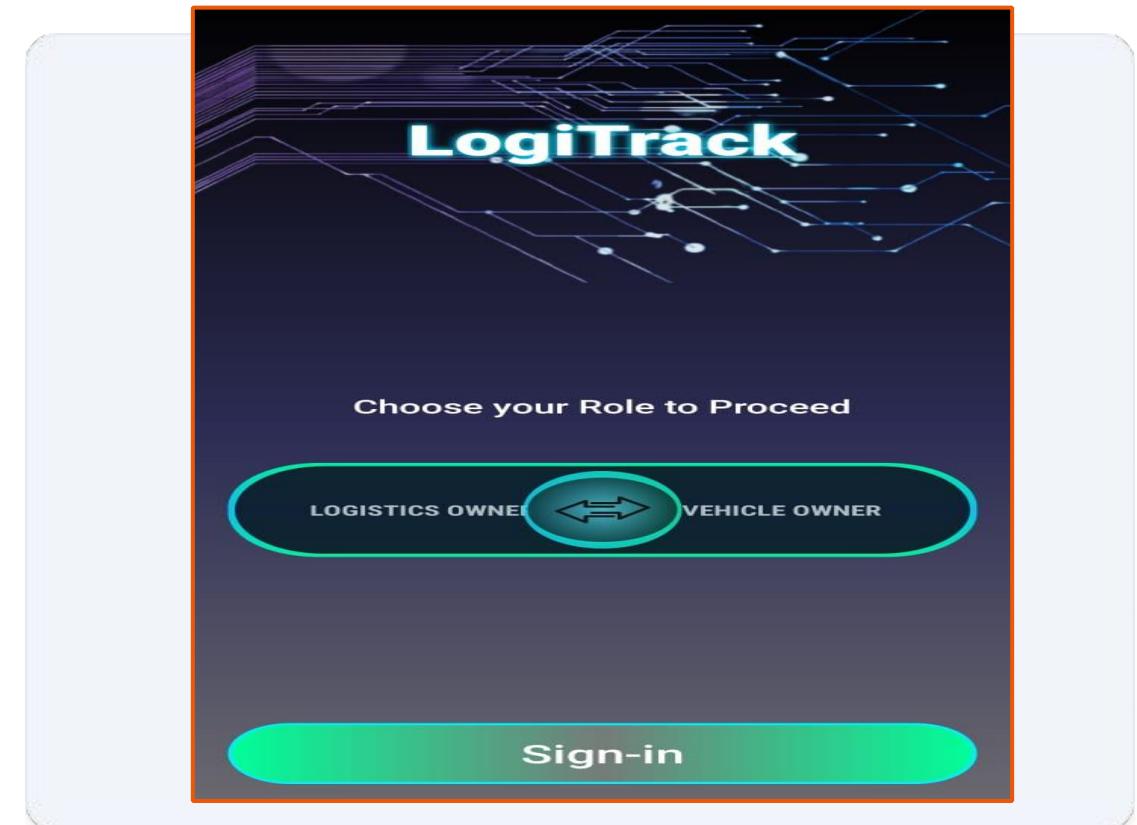
The app uses **Firebase Authentication** with Google Sign-In for a seamless onboarding experience.

Role Selection

An interactive, gesture-based UI allows users to choose their role (scrollable left/right):

- **Vehicle Owner** vs. **Logistic Owner**

Constraint: A single email ID is strictly locked to one specific role to maintain system integrity.

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Logistic Owner: Load Posting

Logistic Owners post new requirements by filling out a comprehensive form (Load name/pattern is included in Logistic Type):

| Logistic Type / Load Name	Tons (Total Load Amount)
Price per Ton (Price per Load)	Total Price (Calculated)
Source City/State	Dest. City/State
Contact Number	Select Date (Requirement)
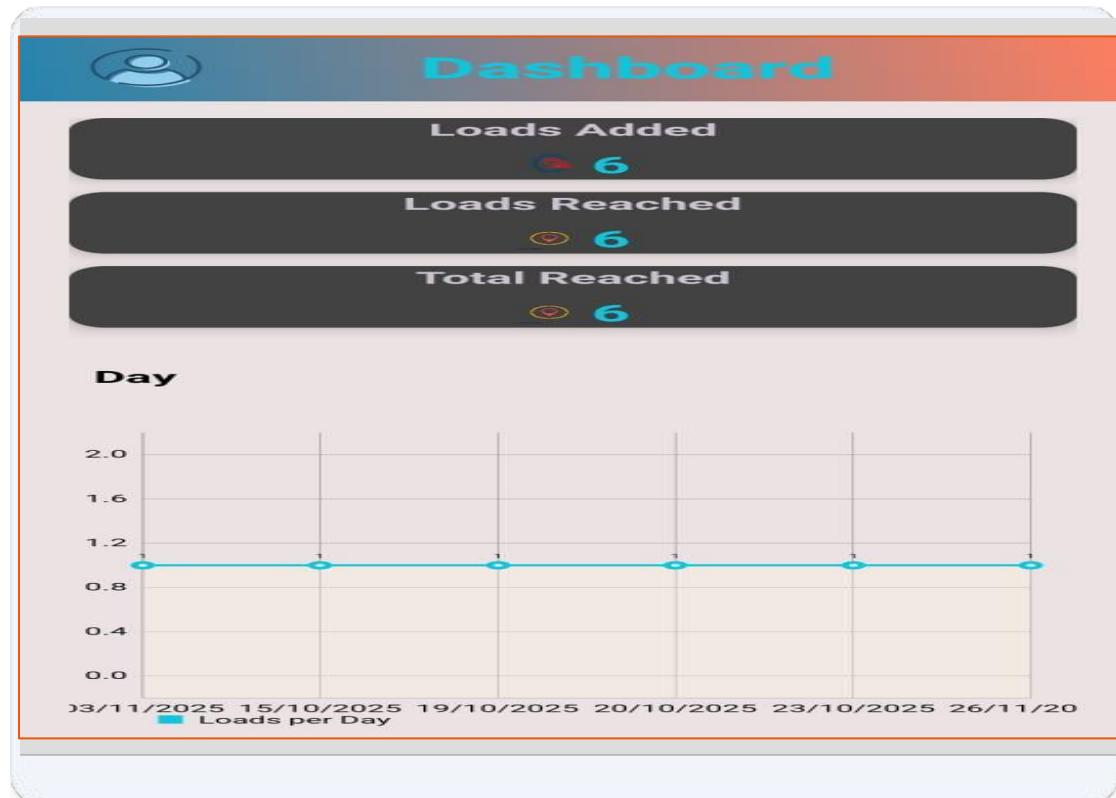
Logistic Owner: Analytics Dashboard

Real-Time Visualization

The **Dashboard Section** (separate from the cart/load list) fetches data directly from **Firebase** to visualize performance.

- **Line Charts:** Display the **number of loads added each day**.
- **Load Cards:** Loads are displayed in a clean card view after verification (as seen on the left).
- **Data Source:** Ensures real-time monitoring of operational activity.

Flexible Search Options
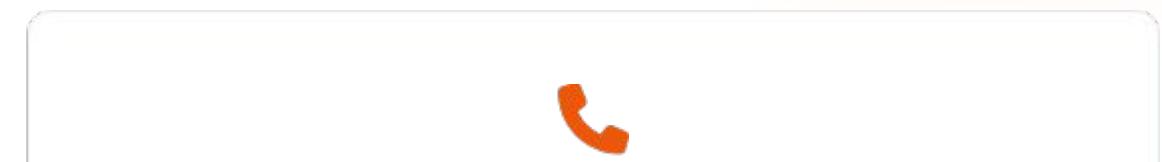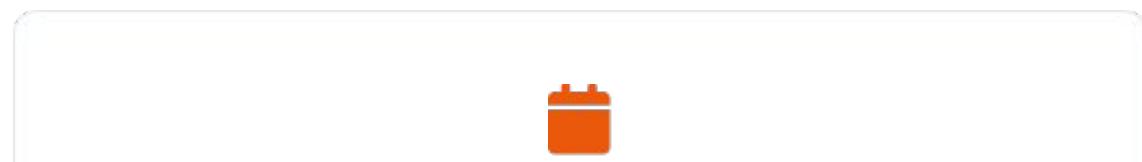
Drivers can search using two methods:
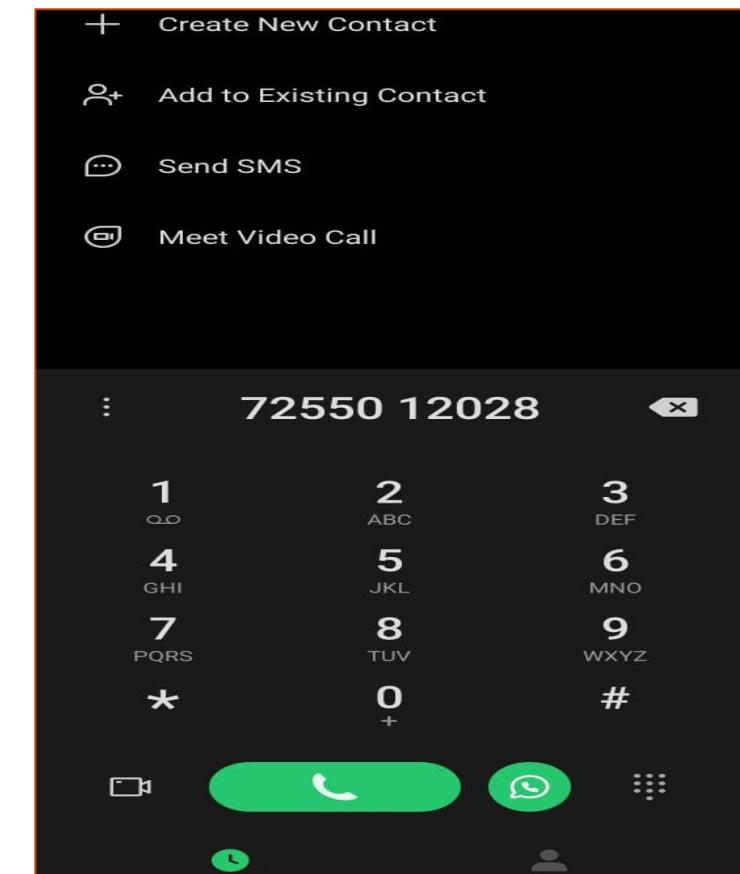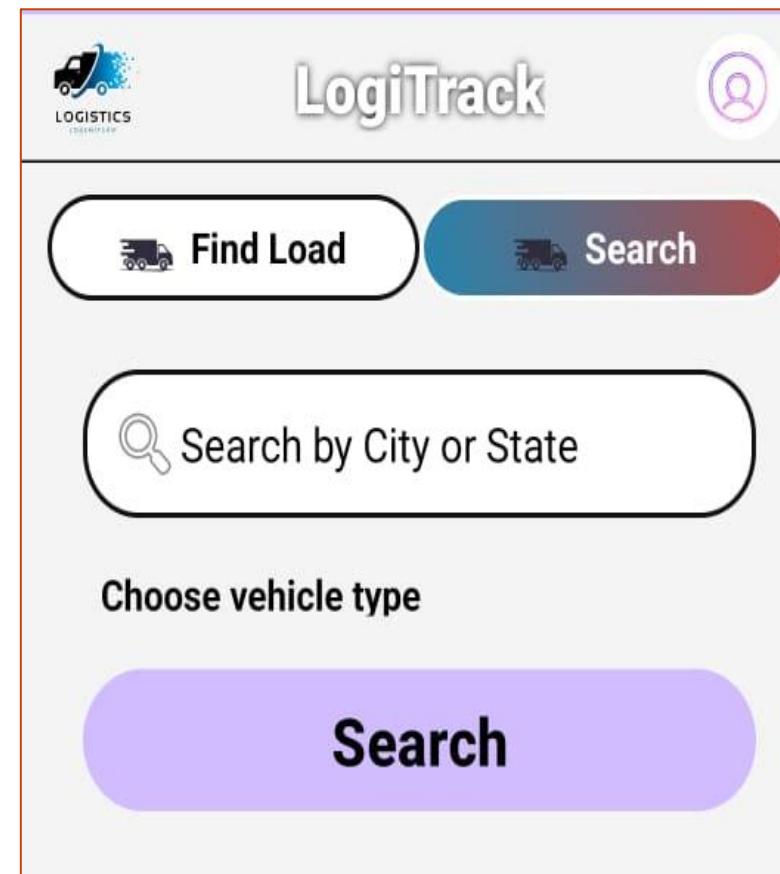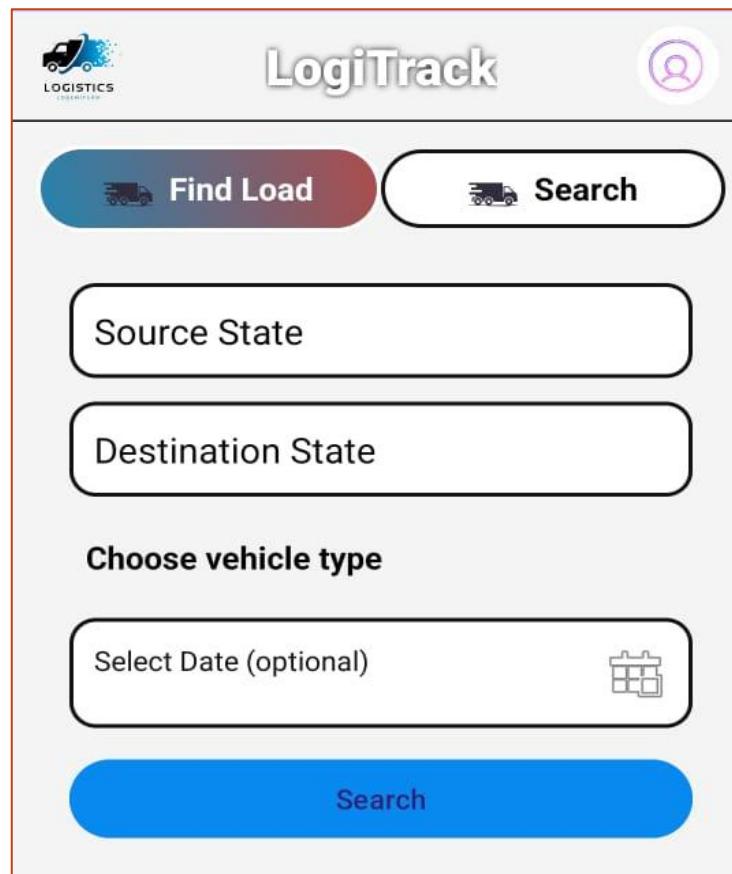
- **Double Search:** Source State & Destination State (**vehicledoublesearch.jpeg**).
- **Single Search:** Any one City/State (Source OR Destination) (**vehiclesinglesearch.jpeg**).
- **Add to Cart:** Loads can be added to the "Load" section (cart) for quick access.

Load Section (Cart View)

The cart (Load section) displays all accepted loads and includes an icon for direct contact:

Smart Navigation

Shared Profile & Settings

Consistent Account Management

The profile section is mostly consistent for both roles, offering

essential tools:

- **My Account:** View and update personal details.
- **Rating Section:** Separate area for user ratings and

  feedback.
- **Privacy & Policy / Terms & Condition:** Regulatory pages.
- **Settings:** Customize app behavior and notifications.

Exception: Logistic Owners have an additional **Dashboard** page
accessible here.

🚀Future Work

We plan to introduce In-App Payments, Live GPS Truck Tracking, and Multi-language support to make the app accessible to a wider audience.

✔Conclusion

LogiTrack successfully bridges the gap in the logistics industry, providing a robust, secure, and user-friendly platform for managing loads and vehicles effectively.

References

Image Sources

App UI Mockups and Screenshots based on project development files.

Project Repository

Access the complete source code and documentation on GitHub:

Source: **https://github.com/MdAhmadRaja/Logistics226**

 MdAhmadRaja/Logistics22