

UI UX for EV Charging Mobile App : ChargEV EV Ecosystem

Subtitle: Making the EV charging experience simple and stress-free.

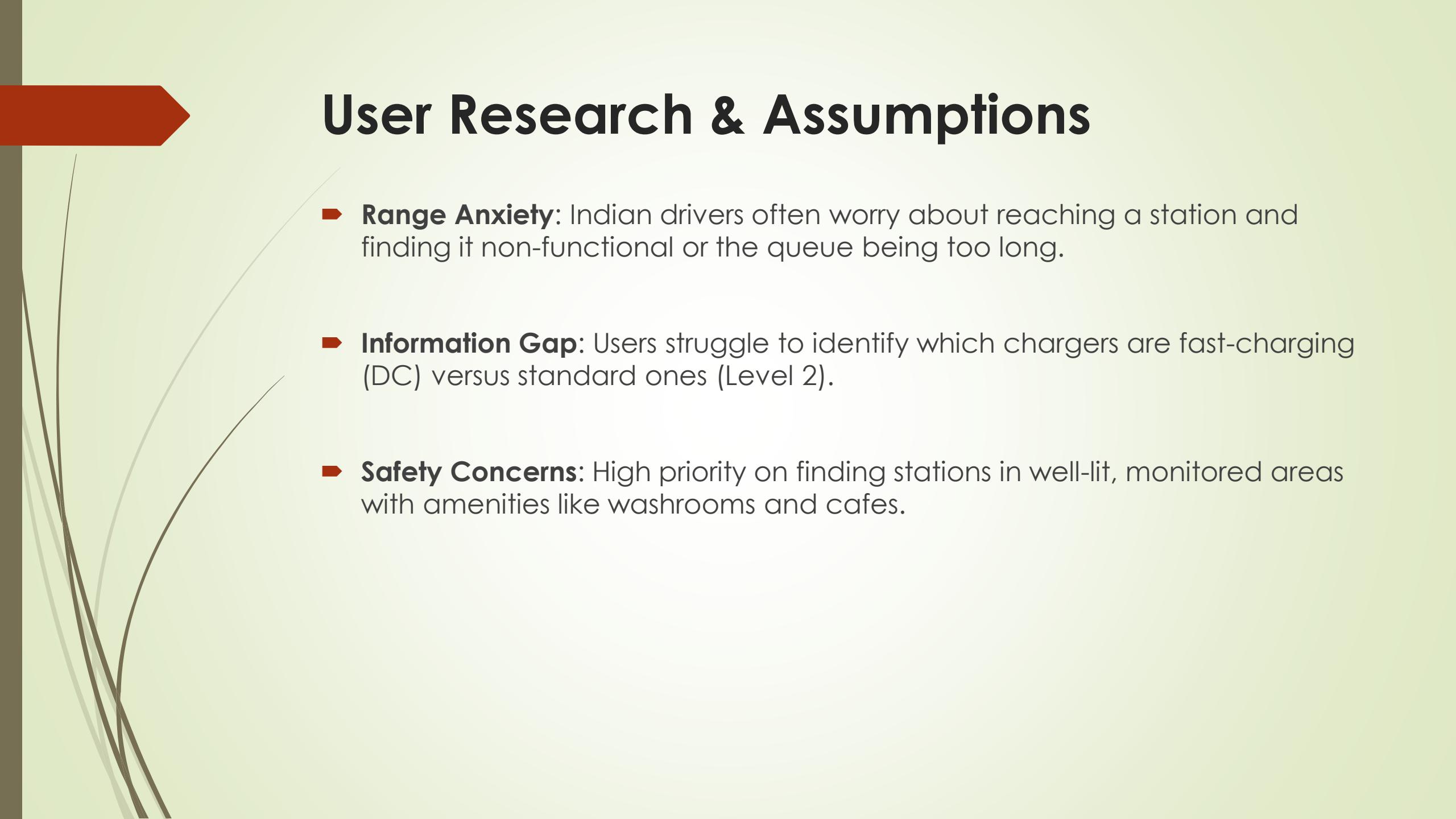
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Project Overview

Application Name: ChargEV

Primary Purpose: A mobile application designed to help Indian EV owners discover, book, and monitor charging sessions seamlessly.

Key Features: Map availability, advanced slot booking, and detailed energy analytics.



User Research & Assumptions

- ▶ **Range Anxiety:** Indian drivers often worry about reaching a station and finding it non-functional or the queue being too long.
- ▶ **Information Gap:** Users struggle to identify which chargers are fast-charging (DC) versus standard ones (Level 2).
- ▶ **Safety Concerns:** High priority on finding stations in well-lit, monitored areas with amenities like washrooms and cafes.



Define

- ▶ **Problem Statement:** "EV owners in India need a reliable, real-time platform to find functional chargers and book slots in advance to avoid long waiting times and ensure trip continuity".
- ▶ **User :** Focus on city commuters and long-distance highway travelers who require fast, predictable charging.
- ▶ **Design Goals:** Simplicity, high visual hierarchy for driving safety, and price transparency.

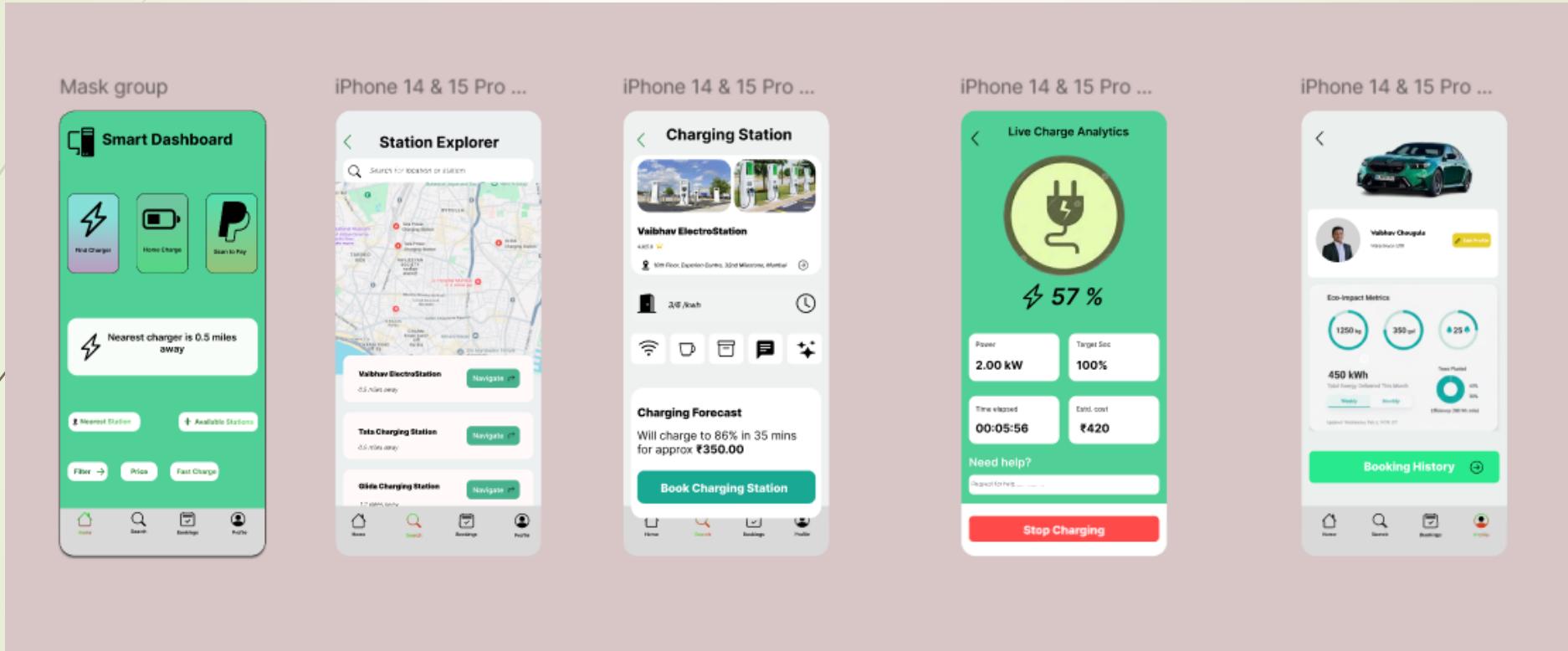


Ideate

- ▶ **Core Concepts Explored:**
- ▶ **Map:** Color-coded pins for instant recognition.
- ▶ **Smart Dashboard:** A home screen that prioritizes the user's current battery status and the nearest charging hub.
- ▶ **Gamified Sustainability:** Tracking CO2 saved to provide positive reinforcement for eco-friendly driving.

Prototype

- ▶ **Page 1: Smart Dashboard** (Home): At-a-glance view of vehicle battery and quick-access buttons for "Find Charger" and "Scan to Pay".
- ▶ **Page 2: Station Explorer** (Map): Integrated map with distance filters and charger-type.
- ▶ **Page 3: Station** (Details): Detailed view including ₹/kWh pricing, user ratings, and station amenities.
- ▶ **Page 5: Live Charge Analytics**: Progress ring UI showing real-time kWh delivery.
- ▶ **Page 6: User Profile & Impact**: Central hub for managing vehicle details, payment history, and "Eco-Impact" metrics.





Test

- ▶ **What would be tested:**
- ▶ **Usability:** Is the station search easy to understand and quick to use?
- ▶ **Clarity:** Is the booking flow clear, and are the buttons easy to tap?

- ▶ **Future Improvements:**
- ▶ Real-time Availability: Integrating live hardware pings to show if a plug is currently in use.
- ▶ Expanded Payments: Adding more localized payment options (UPI, Wallets).
- ▶ Smart Notifications: Alerting the user when their charge hits 80% or when a reserved slot is about to start.



Thank You