

HITCH

Community-Driven Reward-Token Hitchhiking App & Movement



Project Vision

HITCH is not just a ride-sharing application — it's a **cultural shift** that transforms everyday travel into a communal adventure. Users—**Riders (Hitchers)** and **Pilots (Drivers)**—share rides for short to medium distances (500m–200 km) and earn **reward tokens** instead of cash. Tokens unlock real-world rewards from partner brands, fostering exploration, sustainability, and social connection.

We want HITCH to become an **everyday habit**, not just an app, by weaving gamified features, community storytelling, and social status into the fabric of urban mobility.



Core Motives

- **Promote Adventure & Connection:** Turn commutes into shared experiences.
 - **Foster Trust & Community:** Build reputations through transparent ratings and stories.
 - **Empower Through Rewards:** Reward eco-friendly travel with brand-sponsored perks.
 - **Safety & Reliability:** Prioritize verified users, real-time tracking, and SOS features.
 - **Everyday Engagement:** Make HITCH a daily ritual with streaks, leaderboards, and social sharing.
-

Key Features & Engagement Mechanics

1. Core Ride Functionality

- **Live Map View:** Discover Pilots/Riders within a 2 km radius.
- **Role Toggle:** Instantly switch between Rider and Pilot modes.
- **Secure Onboarding:** KYC, selfie verification, GDPR-compliant data handling.

2. Reward & Token System

- **Earn Tokens:** 10 tokens per verified ride; bonuses for distance, streaks, referrals.
- **Token Categories:** Food, Travel Gear, Clothing, Coupons.
- **Instant Redemption:** 100 tokens = ₹100 voucher or product; 200 tokens unlock premium offers.
- **Affiliate Model:** Brands subsidize redemptions and pay 10% commission on vouchers.

3. Habit-Forming Social Features

- **Ride Stories:** Share short, story-like posts after rides (with photos, text). Others can react or comment, building rapport.
- **Leaderboards:** Regional and corridor-based rankings for “Top Pilots,” “Eco Warriors” (highest CO₂ saved), and “Explorers” (distinct routes covered).
- **Streaks & Milestones:** Daily/weekly ride streaks unlock bonus tokens and exclusive badges.

- **Badges & Titles:** Earn titles like “**Campus Champion**,” “**City Voyager**,” “**Eco Hero**” displayed on profile and map pins.
- **Referral Leagues:** Friendly group challenges—invite friends, form teams, compete for most rides or tokens.

4. Community & Discovery

- **Geo-Tagged Meetups:** Scheduled group rides or events flagged on the map for community gatherings.
- **Collaborative Routes:** Users can propose popular adventure routes; top-voted routes become “HITCH Trails” with special rewards.
- **In-App Feeds:** See nearby ride stories, leaderboards, and limited-time local deals.

5. Safety & Anti-Cheating

- **Geofencing & Haversine Checks:** Ensure rides meet distance and uniqueness criteria.
- **Real-Time SOS & Live-Share:** One-tap emergency alerts to contacts and on-duty support.
- **Review & Audit:** Combined AI and manual audits flag suspicious behavior; trust scores adjust dynamically.

Detailed Directory Structure

Below is a refined code organization showing exactly where each feature lives:

```
app/
├── onboarding.tsx      # Role selection, KYC splash
├── map/
│   ├── index.tsx      # Live Map View (pilot/rider markers)
│   ├── RideRequest.tsx # Request & confirm ride flow
│   └── RideStatus.tsx  # Active ride status & route
├── stories/
│   └── RideStories.tsx # Story feed & create story UI
├── leaderboard/
│   └── Leaderboard.tsx # Leaderboards & badges display
├── feeds/
│   └── CommunityFeed.tsx # In-app feeds for meetups & deals
└── (tabs)/
    ├── rides.tsx      # Ride history & milestones
    ├── rewards.tsx     # Token wallet & redemption UI
    └── profile.tsx     # User profile, streaks, trust score, edit

components/
├── RoleToggle.tsx      # Rider/Pilot switch
├── RadarNotification.tsx # Pilot radar-like alerts
├── TokenProgressCard.tsx # Token category progress
├── RewardModal.tsx      # Redemption modal
├── StoryCard.tsx        # Single ride story UI
├── Badge.tsx            # Badge & title component
└── StreakTracker.tsx    # Streak & milestone component
```

```

└─ MeetupPin.tsx          # Geo-tagged event marker

hooks/
└─ useRideData.ts          # Ride API hook (create/join/status)
└─ useRewardData.ts        # Reward API hook
└─ useLeaderboards.ts      # Leaderboard data hook

backend/
└─ controllers/
  │ └─ authController.js    # Auth, profile, role logic
  │ └─ rideController.js    # Ride create/join/nearby/complete
  │ └─ rewardController.js  # Token earn/redeem logic
  │ └─ storyController.js   # Ride stories CRUD
  │ └─ leaderboardController.js # Leaderboard & badge logic
└─ models/
  │ └─ User.js              # User schema (role, tokens, trust)
  │ └─ Ride.js              # Ride schema (geo, status)
  │ └─ Reward.js            # Reward schema (token counts)
  │ └─ Story.js             # Ride story schema
  │ └─ Badge.js             # Badge & milestone schema
└─ routes/
  │ └─ authRoutes.js        # /register, /login, /me, /update
  │ └─ rideRoutes.js        # /rides endpoints
  │ └─ rewardRoutes.js      # /rewards endpoints
  │ └─ storyRoutes.js       # /stories endpoints
  │ └─ leaderboardRoutes.js # /leaderboards endpoints
└─ middleware/
  │ └─ auth.js              # JWT verification
  │ └─ antiCheat.js         # Geofence & duplicate ride prevention
  │ └─ rateLimit.js         # Throttle sensitive endpoints
└─ server.js               # App setup & route mounting

```

Feature Breakdown & Daily Targets

Week 1: Core Ride & Auth Flow

- **Day 1:** Setup `authRoutes`, `authController`, JWT middleware, user model.
- **Day 2:** Build onboarding screen & `RoleToggle` component, integrate auth API.
- **Day 3:** Implement `rideRoutes` & `rideController` for create/join rides.
- **Day 4:** Develop Map index.tsx to call `/rides/nearby` and render markers.
- **Day 5:** Create `RideRequest/RideStatus` screens with API hooks.
- **Day 6:** Write `antiCheat` middleware for distance & uniqueness checks.
- **Day 7:** End-to-end testing of auth + ride flows; bugfix.

Week 2: Rewards & Social Layers

- **Day 8:** Build `rewardRoutes`, `rewardController`, and Reward model.
- **Day 9:** Implement `rewards.tsx` with `TokenProgressCard` and redemption modal.
- **Day 10:** Create `storyRoutes`, `storyController`, and Story model.

- **Day 11:** Develop RideStories.tsx and StoryCard; integrate CRUD flows.
- **Day 12:** Build leaderboardRoutes, leaderboardController, and Badge model.
- **Day 13:** Implement Leaderboard.tsx and Badge component UI.
- **Day 14:** Integrate StreakTracker component and milestone logic.

Week 3: Community & Polishing

- **Day 15:** Create CommunityFeed.tsx and MeetupPin component; story-driven feeds.
- **Day 16:** Add WebSocket or polling for real-time RadarNotification.
- **Day 17:** Implement profile edit and trust score logic in profile.tsx.
- **Day 18:** Add badge displays on map pins and feed stories.
- **Day 19:** Dark mode, localization, and accessibility checks.
- **Day 20:** Performance optimizations and code cleanup.
- **Day 21:** Final QA, write documentation, prepare for launch.



Tech Stack

- **Frontend:** React Native (Expo Router), TypeScript, Reanimated
- **Backend:** Node.js + Express, MongoDB (Mongoose)
- **Auth:** JWT, bcrypt; Role-based access
- **Real-Time:** WebSockets (ride requests, radar alerts)
- **Maps:** Google Maps API / Mapbox



Frontend Design & Collaboration Guidelines

To create a truly **addictive** and **engaging** experience, hand off detailed UI/UX specifications to your design partner. Include:

1. **Component Library & Style Guide**
2. **Color Palette:** Neutral base (whites, light grays) with one accent (e.g. eco-green or adventure-orange).
3. **Typography:** Ultra-legible sans-serif with hierarchy: H1–H3, Body1–Body2, Captions.
4. **Spacing Scale:** 8pt grid for consistent padding/margins.
5. **Iconography:** Line-based icons with single-color fills; custom icons for tokens, badges, and map pins.
6. **Screen-by-Screen Wireframes**
7. **Onboarding:** Minimal two-step role selection + KYC flow.
8. **Map View:** Marker styles for riders/pilots; callout cards on tap.
9. **Ride Flow:** Full-screen modals for request, status, and confirmation.
10. **Rewards & Stories:** Tabbed interactions, story carousels, swipe-to-redeem gestures.
11. **Leaderboard & Streaks:** Horizontal scroll lists, animated progress bars.

12. Interactive Prototypes

13. Use **Figma** to build clickable prototypes for each key flow.

14. Define **micro-interactions**: button press animations, confetti on redemption, modal transitions.

15. Daily Handoff & Feedback Loop

16. Establish a shared Figma project with branches for each feature chunk (rides, rewards, stories).

17. Review designs with the development team daily—confirm component specs before coding.

18. Dev-Designer Sync

19. Design handoff includes **Figma tokens** export (colors, typography, spacing) and **SVG components**.

20. Developers import these directly into React Native using tools like **Figma-to-Code** or **Design Tokens**.

Continue with Growth & Engagement Roadmap on the next page.

- **Frontend**: React Native (Expo Router), TypeScript, Reanimated
- **Backend**: Node.js + Express, MongoDB (Mongoose)
- **Auth**: JWT, bcrypt; Role-based access
- **Real-Time**: WebSockets (ride requests, radar alerts)
- **Maps**: Google Maps API / Mapbox



Growth & Engagement Roadmap

1. **Phase 1: Hyperlocal MVP**
 2. Launch in one corridor (e.g., college campus)
 3. Focus on core rides + basic rewards
 4. **Phase 2: Habit Loop Activation**
 5. Introduce streaks, leaderboards, ride stories
 6. Partner with 5–10 local brands for token redemptions
 7. **Phase 3: Scale & Monetize**
 8. Expand to multiple corridors, cities
 9. Roll out analytics dashboards for brand partners
 10. **Phase 4: Community Expansion**
 11. Geo-tagged events, HITCH Trails, team leagues
 12. International pilot launches in SE Asia
-

Team Roles & Next Steps

Developer	Focus Area
Dev #1	Auth & Profile + Ride Stories Feed
Dev #2	Map & Ride Matching + Radar Alerts
Dev #3	Rewards System + Leaderboards & UI

Immediate Task: Finalize core Map + Ride flows, then layer on **stories** and **leaderboard** components before August internship.

Contact & Collaboration

- **GitHub:** [v04/hitcho: thy will knw](#)

-

Let's build a movement, one ride at a time.