**HaulHub: Decentralized Micro-Freight on Polygon**  
HaulHub is a mobile dapp on Polygon where anyone with a bike, car, or skateboard can haul small cargo (up to 50 lbs, 15 miles max) for USDC. Base haul: $5 for 5 miles and 10 lbs, scaling for distance, weight, or rush jobs. Haulers earn USDC and reputation NFTs (badges) like “Speed Demon” via a gamified system, while posters pay with PayPal, credit cards, mobile wallets, or crypto—no wallet needed for fiat. Smart contracts on Polygon lock payments in escrow, AI optimizes routes and job stacking, and a map-driven homepage lets haulers claim tasks and posters track progress live. From lost keys to spare tires, HaulHub delivers the little stuff, peer-to-peer, no middleman.

* **Key Features**:
  + Polygon USDC payments with fiat integration.
  + Badge NFTs for hauler reputation.
  + Job stacking, rush mode, eco-incentives.
  + Homepage with map/list for haulers, post/tracker for posters.
* **Mission**: Fast, fair, fun micro-freight for all.

**Updated High-Level Directory Structure**

This reflects the homepage design (map, list, tracker), Polygon integration, and multi-payment system. It’s still high-level but now includes specific files for the new features.

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HaulHub/

├── /client # Frontend (React Native for mobile)

│ ├── /public # Static assets

│ │ ├── index.html

│ │ └── assets/ # Logos, badge icons, map pins

│ ├── /src

│ │ ├── /components # Reusable UI

│ │ │ ├── MapView.js # Interactive haul map

│ │ │ ├── JobCard.js # Haul details ($5, 5 mi, 10 lbs)

│ │ │ ├── Badge.js # NFT badge display

│ │ │ ├── PaymentSelector.js # PayPal, card, USDC picker

│ │ │ └── Tracker.js # Live hauler location

│ │ ├── /pages # Main screens

│ │ │ ├── HaulerHome.js # Map + list for haulers

│ │ │ ├── PosterHome.js # Post form + tracker

│ │ │ ├── MyHauls.js # History for both roles

│ │ │ └── Wallet.js # USDC, MATIC, cash-out

│ │ ├── /hooks

│ │ │ ├── usePolygon.js # Polygon wallet (MetaMask)

│ │ │ └── useGeolocation.js # GPS for tracking

│ │ ├── /styles # Tailwind/CSS

│ │ └── App.js # Entry point, mode toggle

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├── /server # Backend (Node.js)

│ ├── /api # REST endpoints

│ │ ├── /jobs # List, claim, post hauls

│ │ ├── /payments # Fiat-to-USDC conversion

│ │ └── /users # Profiles, badges

│ ├── /services

│ │ ├── polygon.js # Smart contract calls (escrow, badges)

│ │ ├── payment.js # Stripe, PayPal, Coinbase APIs

│ │ ├── pricing.js # $5 base + adjustments

│ │ └── ai.js # Route optimization, stacking

│ ├── /config

│ │ └── db.js # MongoDB for off-chain data

│ └── index.js # Server entry

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├── /contracts # Solidity on Polygon

│ ├── HaulHub.sol # Escrow, payouts, haul rules

│ ├── BadgeNFT.sol # ERC-721 badges

│ ├── /deploy # Hardhat scripts (Mumbai testnet)

│ └── /abis # Compiled ABIs

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├── /docs # Guides

│ ├── README.md # Project overview

│ └── api.md # API spec

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├── /tests # Tests

│ ├── /client

│ ├── /server

│ └── /contracts

│

├── package.json # Deps (React Native, ethers.js, Express)

└── .env # Polygon RPC, API keys

**Key Updates:**

* **/client/src/pages**:
  + HaulerHome.js: Map + list toggle for browsing hauls.
  + PosterHome.js: Post form + live tracker.
* **/components**:
  + MapView.js: Renders haul pins ($5 green, $10 red).
  + Tracker.js: Shows hauler dot + ETA.
* **/services/pricing.js**: Codifies $5 base (5 mi, 10 lbs) + scaling (e.g., +1 USDC/2 mi).