

TEAM
HACKATHIANS

AGRICHAIR

PROBLEM STATEMENT

Small-scale farmers lose up to 40% of their potential income, trapped in a broken, outdated system plagued by:

- **Predatory Intermediaries:** Long chains of brokers take huge cuts, leaving farmers with minimal earnings.
- **Price Opacity:** Without real-time market data, farmers negotiate blindly and accept unfair prices.
- **Trust Deficit:** Lack of trust between buyers and farmers limits market reach and growth.
- **Delayed & Risky Payments:** Payments take weeks or months, causing severe cash flow issues and financial uncertainty.



SOLUTION

- A DApp that connects farmers directly with buyers.
- AI Agent negotiates prices on behalf of farmers.
- Blockchain ensures transparency, traceability, and trust.
- OTP-based delivery confirmation to ensure secure payment.
- Easy-to-use mobile interface – no technical skills needed





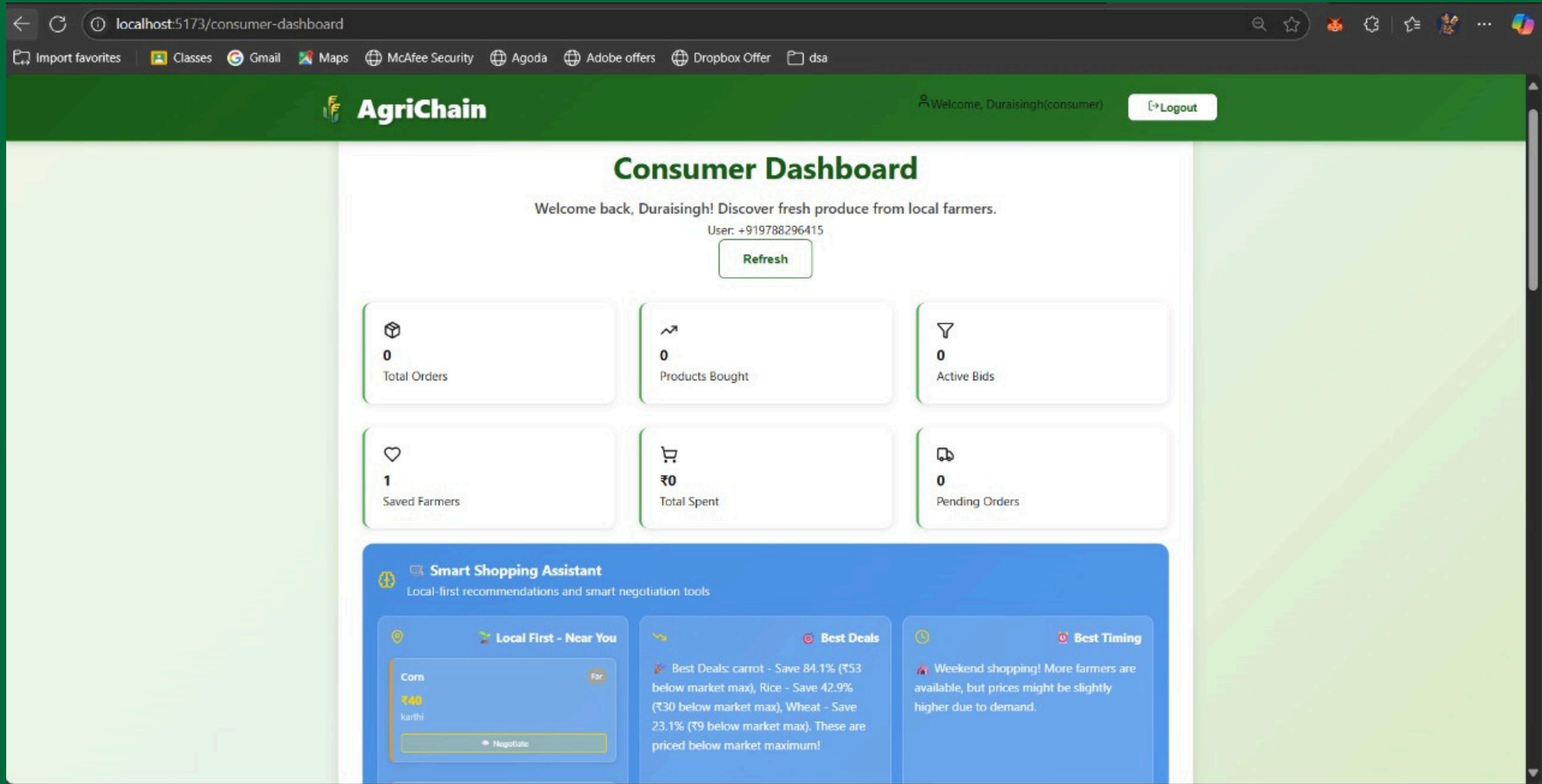
THE NEED FOR BLOCKCHAIN IN AGRICULTURE MARKETPLACES

- 🔒 **Immutable Records:** Produce listings & transactions are tamper-proof.
- 📑 **Transparent Pricing:** Every deal is publicly verifiable.
- 💰 **Escrow Contracts:** Funds are held securely until delivery is confirmed.
- 👤⚖️ **Trustless Transactions:** No middlemen, no manipulation.
- 🌐 **Decentralization:** No single party controls the data.

FLOW DIAGRAM



SCREENSHOTS



The screenshot shows the AgriChain Consumer Dashboard running in a web browser on a local host. The dashboard is designed to help consumers discover fresh produce from local farmers.

Header: The top navigation bar includes a back button, a refresh button, a search bar, and various browser extensions. The URL is `localhost:5173/consumer-dashboard`. The title bar displays the AgriChain logo and the user's welcome message: "Welcome, Duraisingh(consumer)". A "Logout" button is also present.

Main Content: The main area is titled "Consumer Dashboard" and features a welcome message: "Welcome back, Duraisingh! Discover fresh produce from local farmers." Below this, it shows the user's phone number: "User: +919788296415" and a "Refresh" button.

Dashboard Metrics: Six key metrics are displayed in boxes:

- Total Orders: 0
- Products Bought: 0
- Active Bids: 0
- Saved Farmers: 1
- Total Spent: ₹0
- Pending Orders: 0

Smart Shopping Assistant: This section provides local-first recommendations and smart negotiation tools.

Local First - Near You: Shows a deal for Corn at ₹40 by farmer karthi. A "Negotiate" button is available.

Best Deals: Lists best deals for carrots, rice, and wheat, indicating savings compared to market maxima.

Best Timing: Advises on weekend shopping, noting higher demand might lead to slightly higher prices.

SCREENSHOTS

The screenshot shows the AgriChain Farmer Dashboard interface. At the top, there's a navigation bar with a back button, a search icon, and a star icon. The URL is `localhost:5173/farmer-dashboard`. Below the bar, there are links for Import favorites, Classes, Gmail, Maps, McAfee Security, Agoda, Adobe offers, Dropbox Offer, and a local file named `dsa`.

The dashboard header features the AgriChain logo and a welcome message: "Welcome, karthi(farmer)". There's also a "Logout" button.

Farmer Dashboard

Welcome back, karthi! Manage your crops and connect with buyers.

The dashboard displays six key metrics in cards:

- Total Listings:** 5
- Active Listings:** 5
- Orders Completed:** 3
- Pending Orders:** 0
- Wallet Balance:** ₹0
- Total Revenue:** ₹1,050

Below these cards are two buttons: "+ Add New Product" and "Manage OTPs & Escrow".

A green banner at the bottom left says "AI Market Intelligence" and "Real-time market data and smart pricing suggestions". It includes a dropdown menu set to "Wheat - ₹30 (50)".

Two main AI modules are shown:

- Market Analysis - Wheat:** Shows "Premium pricing! Market accepts up to ₹31". It lists "Your Price: ₹30/kg", "Market Min: ₹21/kg", "Market Max: ₹31/kg", and "Average: ₹26/kg".
- AI Product Description:** Describes "High-quality Wheat grain, perfect for flour production. Essential commodity with stable market prices." It has a "Generate New Description" button.

SCREENSHOTS

The image displays two side-by-side screenshots illustrating the integration of the AgriChain platform with a digital wallet interface.

Left Screenshot: Order Management & Wallet

This screenshot shows the AgriChain Order Management & Wallet interface. At the top, there is a navigation bar with links like "Import favorites", "Classes", "Gmail", "Maps", "McAfee Security", "Agoda", "Adobe offers", "Dropbox Offer", and a local file "dsa". Below the navigation bar, the AgriChain logo is visible. A "Back to Dashboard" button is present. The main title "Order Management & Wallet" is centered. On the right, a "Wallet Balance" section shows "₹0". Below it, a "Farmer Instructions" box contains the text: "Share the OTP with customers only after delivering their orders. Once they enter the OTP, the payment will be automatically credited to your account." A "Pending Orders" section shows "0 pending orders" and a "Completed Orders" section for "Order #ORDER_17" with details: "AMOUNT CREDITED ₹150", "CUSTOMER +919788296415", "COMPLETED DATE 13 Jul 2025, 08:17 am", and "ITEMS 1 item(s)".

Right Screenshot: Digital Wallet Interface

This screenshot shows a digital wallet interface. At the top, it displays a balance of "\$29,594,300.... USD" with a note "+\$0 (+0.00%) Portfolio". Below the balance are five buttons: "Buy & Sell", "Swap", "Bridge", "Send", and "Receive". A modal window titled "Ready to bridge?" with the subtext "Move across 9 chains, all within your wallet" is open. The bottom of the screen shows a timeline with a single entry: "Jul 13, 2025" followed by a "Send" transaction with status "? Confirmed", amount "-0 ETH", and "-\$0.00 USD". The wallet interface also includes tabs for "Tokens", "NFTs", and "Activity".

TECHNOLOGY STACK

- 🔧 Frontend: React.js + Plain CSS
- 🌐 Backend: Firebase Auth + Firestore
- 🧠 AI Agent: LLM-powered (Grok) + Negotiation logic
- 🔗 Blockchain: Solidity + Hardhat + ethers.js
- 🦊 Wallets: MetaMask + EVM-based local deployment
- 📝 Dev Tools: Hardhat,



IMPACT & VISION

- 🌾 2x better price realization for small farmers
- 💬 Easy access to buyers using AI agents
- 🔒 100% secured transactions
- 🌐 Scalable for rural India & beyond
- 🚀 Future: On-chain reputation, token incentives, multilingual agent





THANK YOU

A presentation is a formal talk, often delivered in front of an audience, aimed at conveying information, persuading others, or sharing insights on a particular topic. Presentations can take various forms, such as verbal speeches, slideshows, demonstrations, or multimedia displays. They are commonly used in academic, professional, and social settings to communicate ideas, proposals, reports, or findings. Effective presentations typically involve careful planning, organization, and delivery techniques to engage the audience and effectively convey the intended message.