

VOIS Innovation Marathon 2.0



Project Title

KrishiSaarthi



Team Number : 15



**Pune Institute of Computer
Technology, Pune-411043**



**Srujan Satav, Electronics and
Telecommunication Engineering**



**Kanishka Salgude,
Information Technology**



**Sanskar Tiwari, Electronics
and Telecommunication
Engineering**

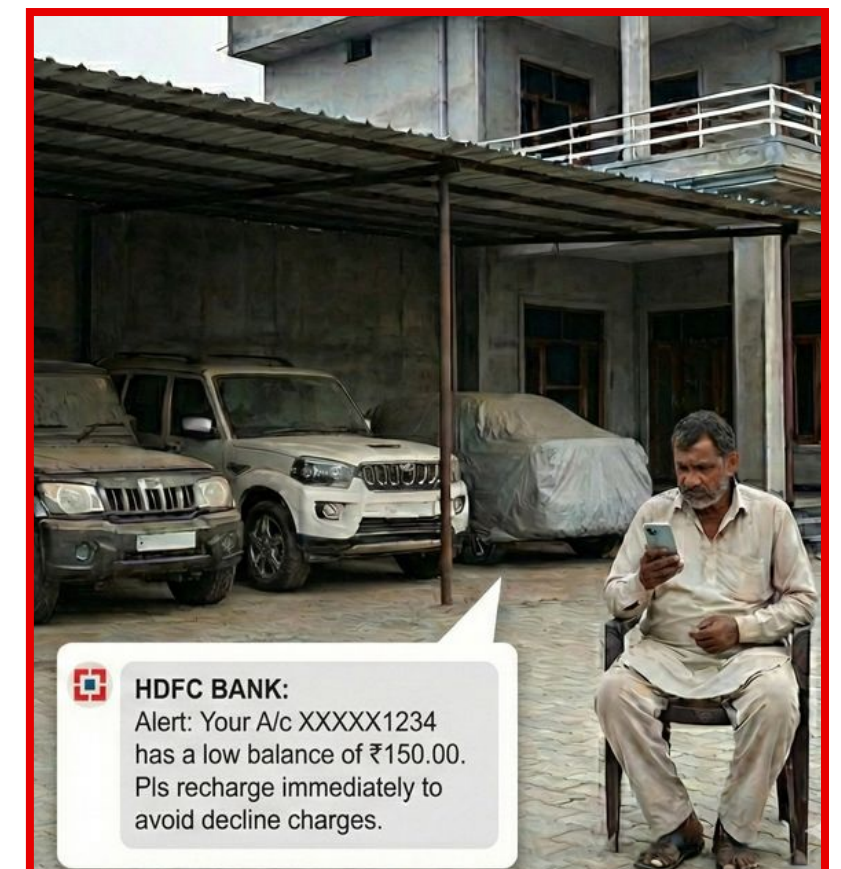
Problem Statement

The Challenge: Indian farmers aren't just struggling - they're systematically losing money they should be making.

- **Diagnostic Blindness:** Delayed diagnosis = 20% yield lost. ₹50K-₹1.5L gone. 86% small farmers can't afford it.
- **The ₹15,000 Crore Bonfire:** 23M tonnes burned. ₹25K-₹50K/year torched. Waste = wealth. Nobody told them.
- **Capital Annihilation:** The "Jewar Effect" - crores of compensation vanishes. Farmers trade land for cash, then burn it on liabilities. Result: Back to poverty in 3 years.
- **Sustainability Exploitation:** Farmers go green. Corporates profit billions. Farmer gets nothing.

This isn't inefficiency - it's a ₹15,000 crore market begging for disruption.

Sources: Agricultural Census 2015-16 | ICAR Crop Loss Report 2023 | NITI Aayog Land Compensation Study 2022
| Jewar and Purandar Airport compensation case study



HDFC BANK:
Alert: Your A/c XXXXX1234 has a low balance of ₹150.00. Pls recharge immediately to avoid decline charges.

Need of Project

Isolated Solutions Don't Fix Systemic Collapse!

Green Credits Exist on paper only.

Manual verification
= 6-18 months.
Farmers never get
paid.

The Missing Link:

No platform connects
the person (Finance),
the farm
(Personalization), and
the planet
(Waste-to-Value).

Land-acquired farmers :

lose 68% of
compensation in 3
years. No financial
literacy. No advisory.

Crop Apps:

Solve disease.
Ignore debt.
(60% suicides
= financial crisis)

KrishiSaarthi



The Complete Puzzle: Centered on the Farmer



1. Farmer-Centric Treats the person's
financial health (debt/income), not
just the plant's survival.



2. Future-Proof Transforms
temporary land compensation
into lifelong family security.



3. Direct Reward Ensures the human
steward gets paid for sustainability,
not the middlemen.

Proposed Solution

Farm to Finance: One Platform. Zero Gaps.



1. AI Crop Diagnostics:

Instant, 96% accurate disease detection and treatment protocols from a single photo.



2. Waste-to-Value:

Converts crop residue (husks, stalks) into sellable bio-fuel and industrial materials.



3. Business Advisory:

Strategizes compensation money and land to build high-ROI business models with 10-year income roadmaps.

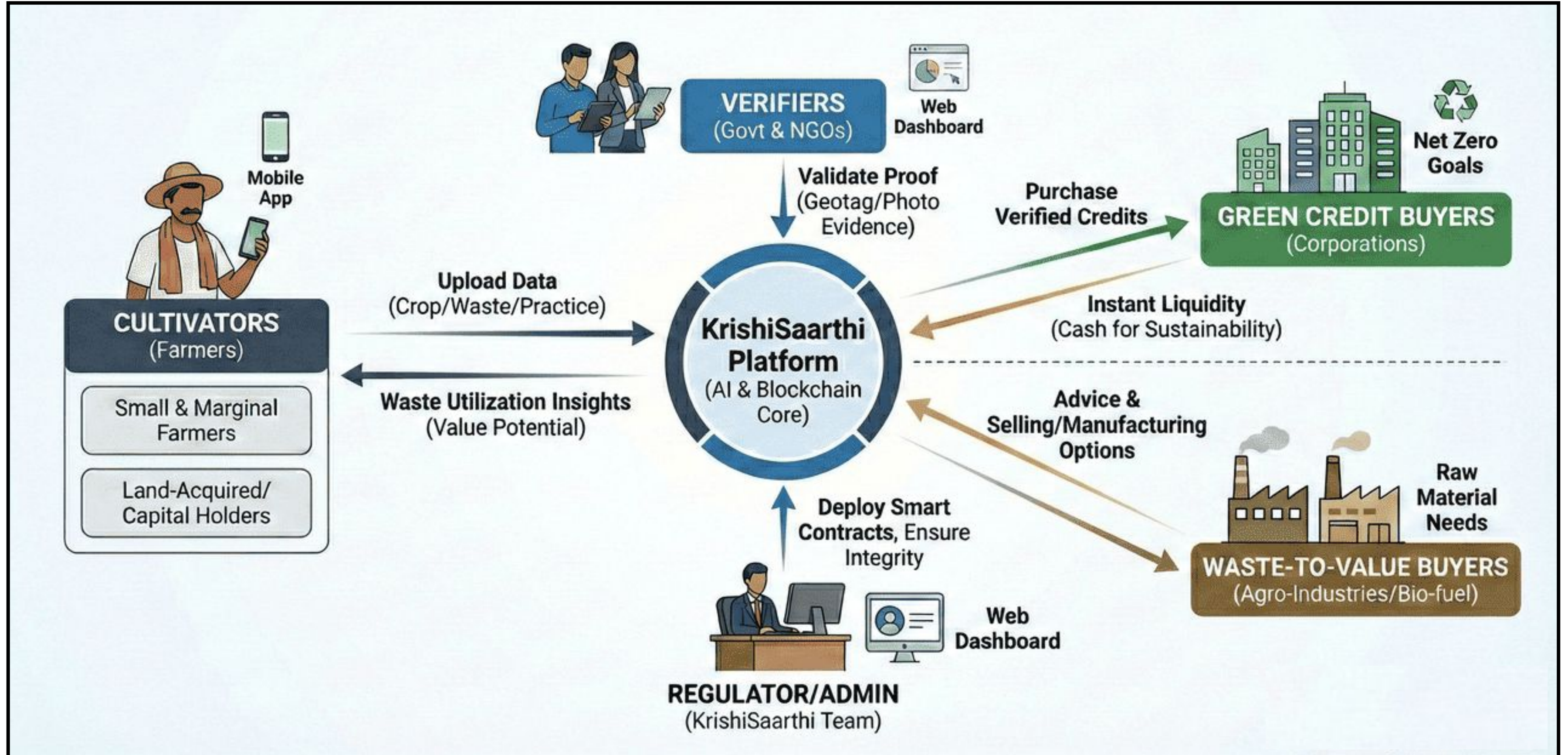


4. Green Credit Marketplace:

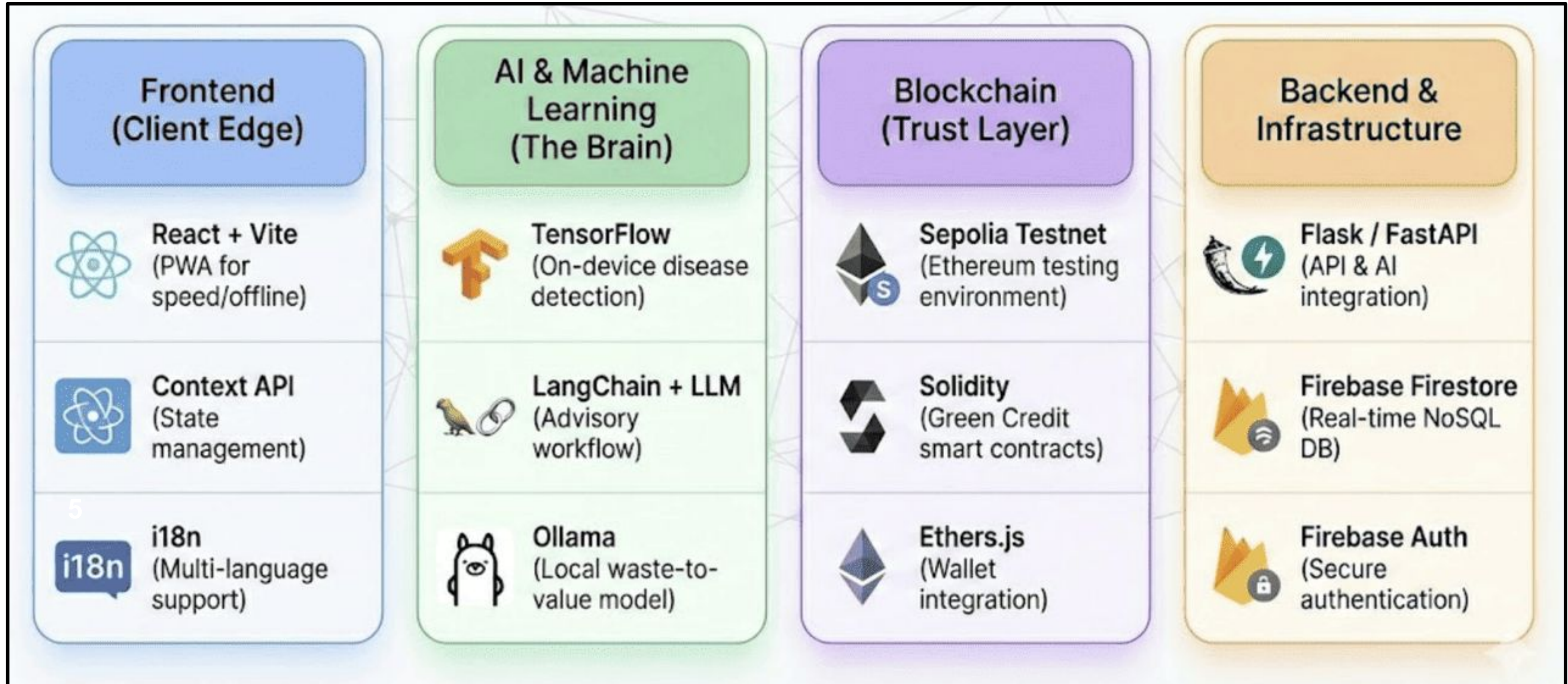
Validates sustainable practices via blockchain for transparent credit monetization with corporate buyers.

We don't ask "What do you grow?" We answer "How should you invest, protect, and profit?"

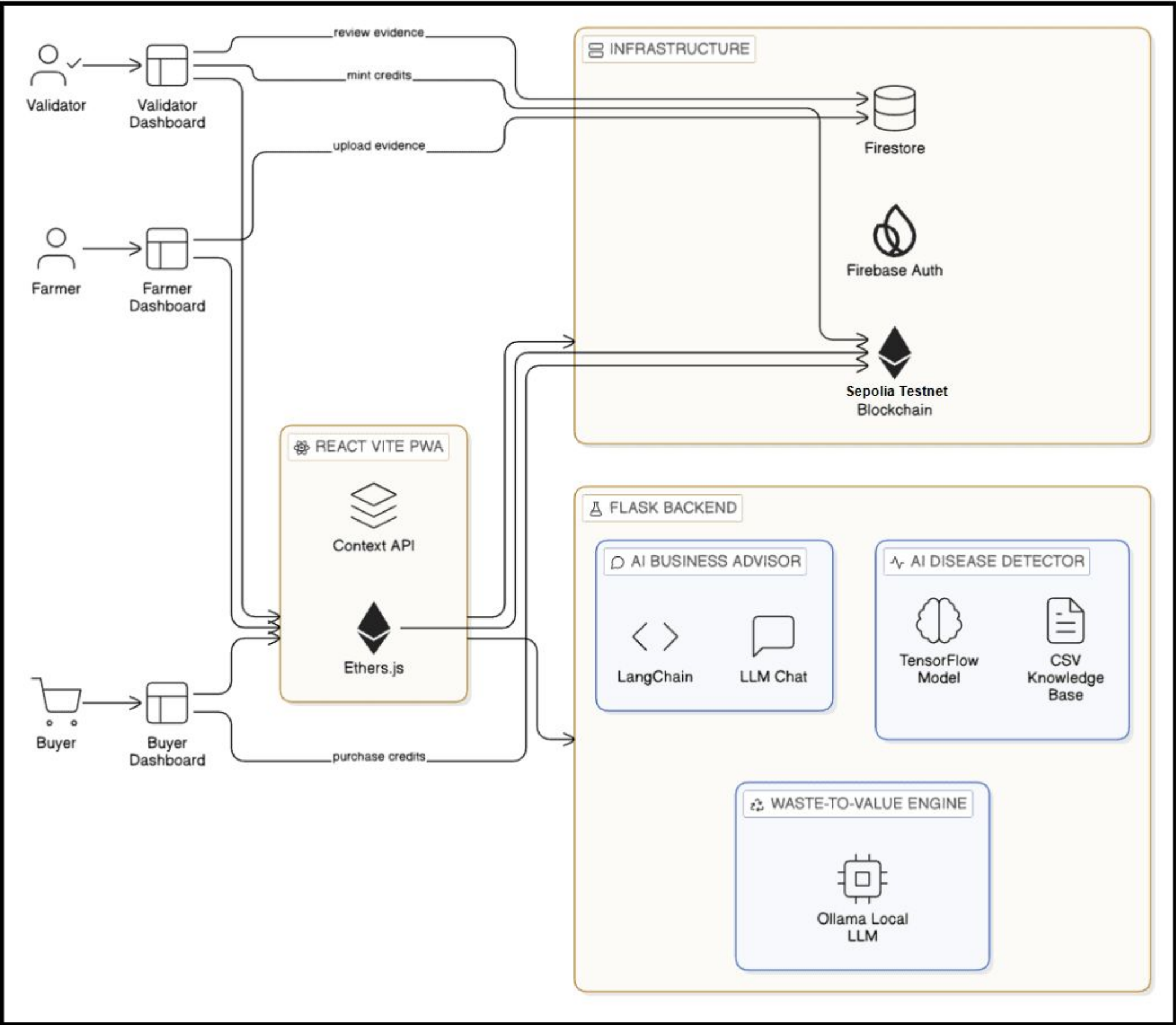
Solution Overview



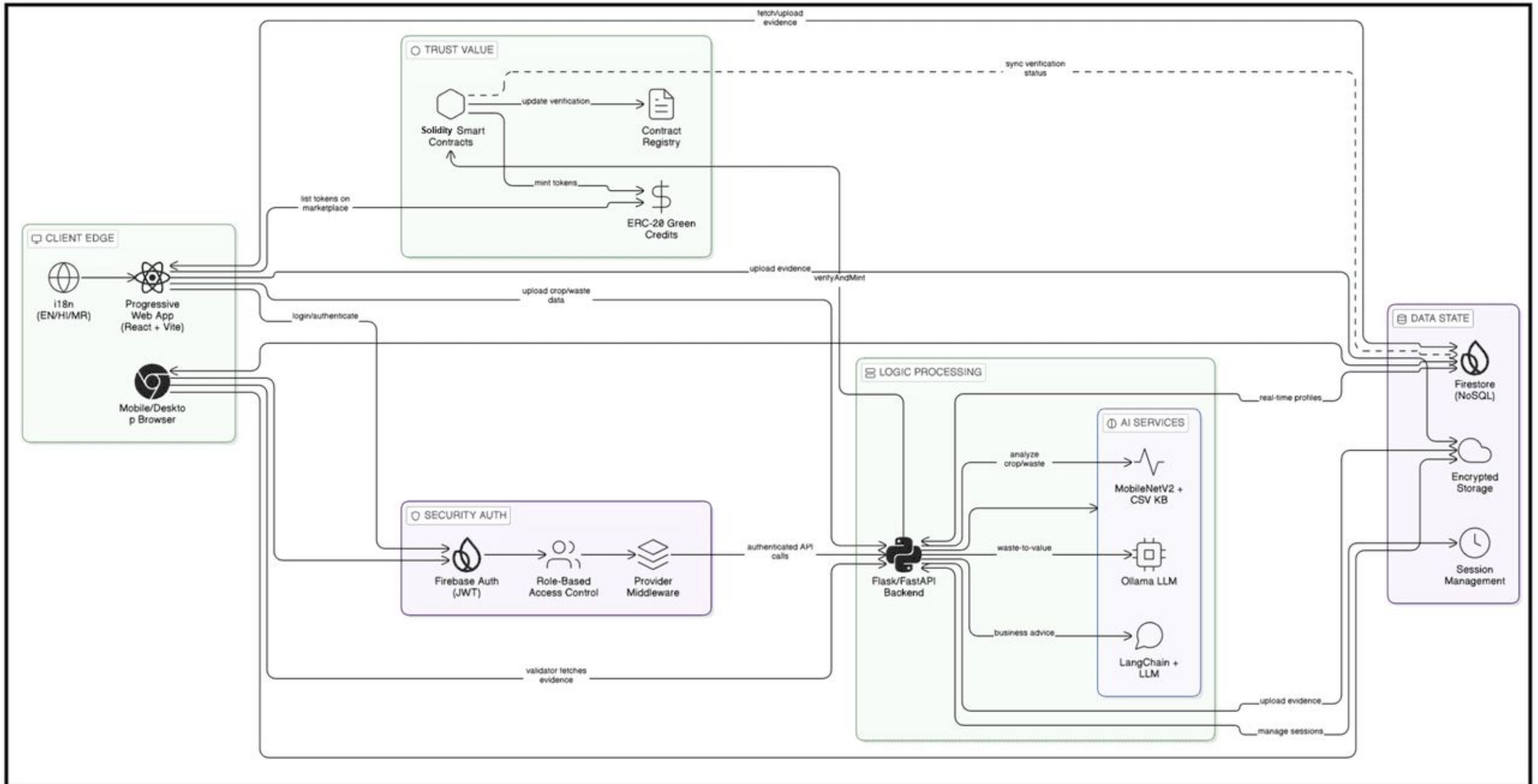
Technology used



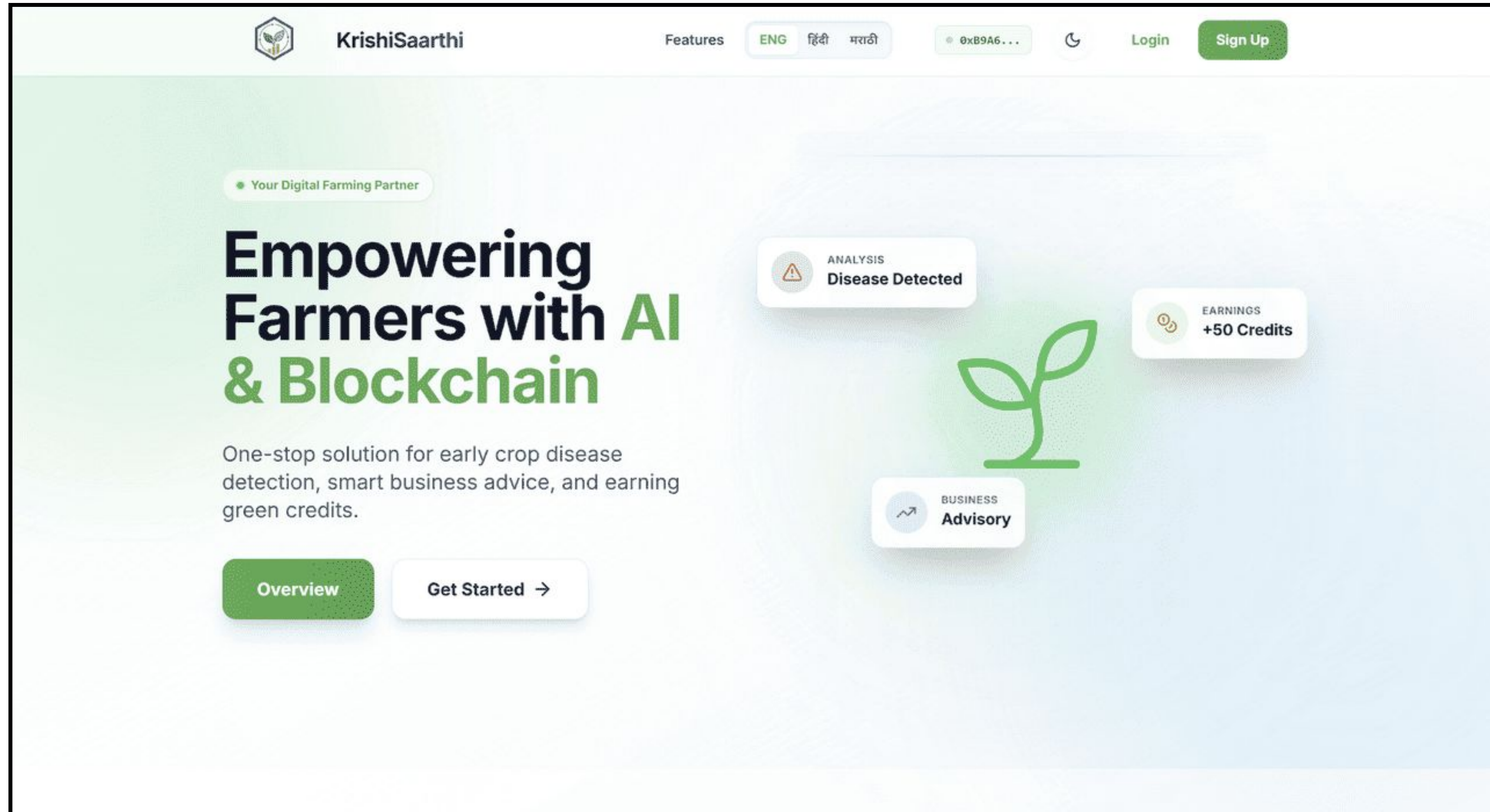
Technical flow diagram -



Architecture Blueprint



Screen shots of your project -



Screen shots of your project -

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Tell us about your resources

Budget (₹)

25000

Land (Acres)

4

Water Source

Borewell

Experience (Years)

10

Interests

Dairy Farming

Poultry

Greenhouse Farming

Goat Farming

Sheep Rearing

Factory Business

Floristry

Mushroom Cultivation

Market & Strategy

How close are you to a market or buyers?

Village only

Smart town within 10 km

City within 30 km

Direct buyers already available

Are you willing to sell directly to customers (B2C)?

Yes, I can handle customers

Maybe, with guidance

No, I prefer bulk buyers only

If income fluctuates month to month, how comfortable are you?

Very comfortable

Somewhat okay

Not comfortable at all

How long can you wait to recover your investment?

Less than 1 year

1-2 years

2-3 years

I can wait longer

What is your attitude toward losses in the first year?

I understand initial losses are possible

Small losses acceptable

I cannot afford losses

If given two options, what would you choose?

Safe income, lower profit

Higher profit, higher risk

IMPORTANT NOTE

All business ideas and data shown here are research-based and approximate. Actual costs and profits may vary by region, city, market demand, and season.

I have read and understood the above points and acknowledge that the data shown is indicative. I will consider local conditions, market demand, and legal requirements before making any investment decision.

Analyze

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Recommended Businesses

Retake Assessment

90% Match

DAIRY FARMING (6-8 COW UNIT)

This business matches the farmer's existing skills and experience in dairy farming.

INVESTMENT ₹10L - ₹13L

PROFIT ₹20k - ₹40...

REQUIREMENTS Land Capital

Ask Chatbot Know More

85% Match

GOAT MILK FARMING (20-25 MILCH GOATS UNIT)

This business leverages the farmer's existing experience in goat farming and expands their product offerings.

INVESTMENT ₹6.5L - ₹9.5L

PROFIT ₹30k - ₹60...

REQUIREMENTS Land Capital

Ask Chatbot Know More

80% Match

COW DUNG ORGANIC MANURE & BIO-INPUTS

This business utilizes the farmer's existing asset of cow dung and aligns with their skillset in dairy farming.

INVESTMENT ₹1.2L - ₹2.5L

PROFIT ₹15k - ₹35k...

REQUIREMENTS Land Capital

Ask Chatbot Know More

KrishiSaarthi

ENG हिंदी कन्नड़ Farmer 0x7b00... Sanskar Tiwari

DAIRY FARMING (6-8 COW UNIT)

BASIC IDEA

- Rearing milch cows to produce milk daily
- Selling to cooperatives or bulk buyers
- Secondary income from manure and calves

SOURCE

- Local Milkman

SOURCE LOCATION

- Uruli Devachi, Hadapsar, Pune

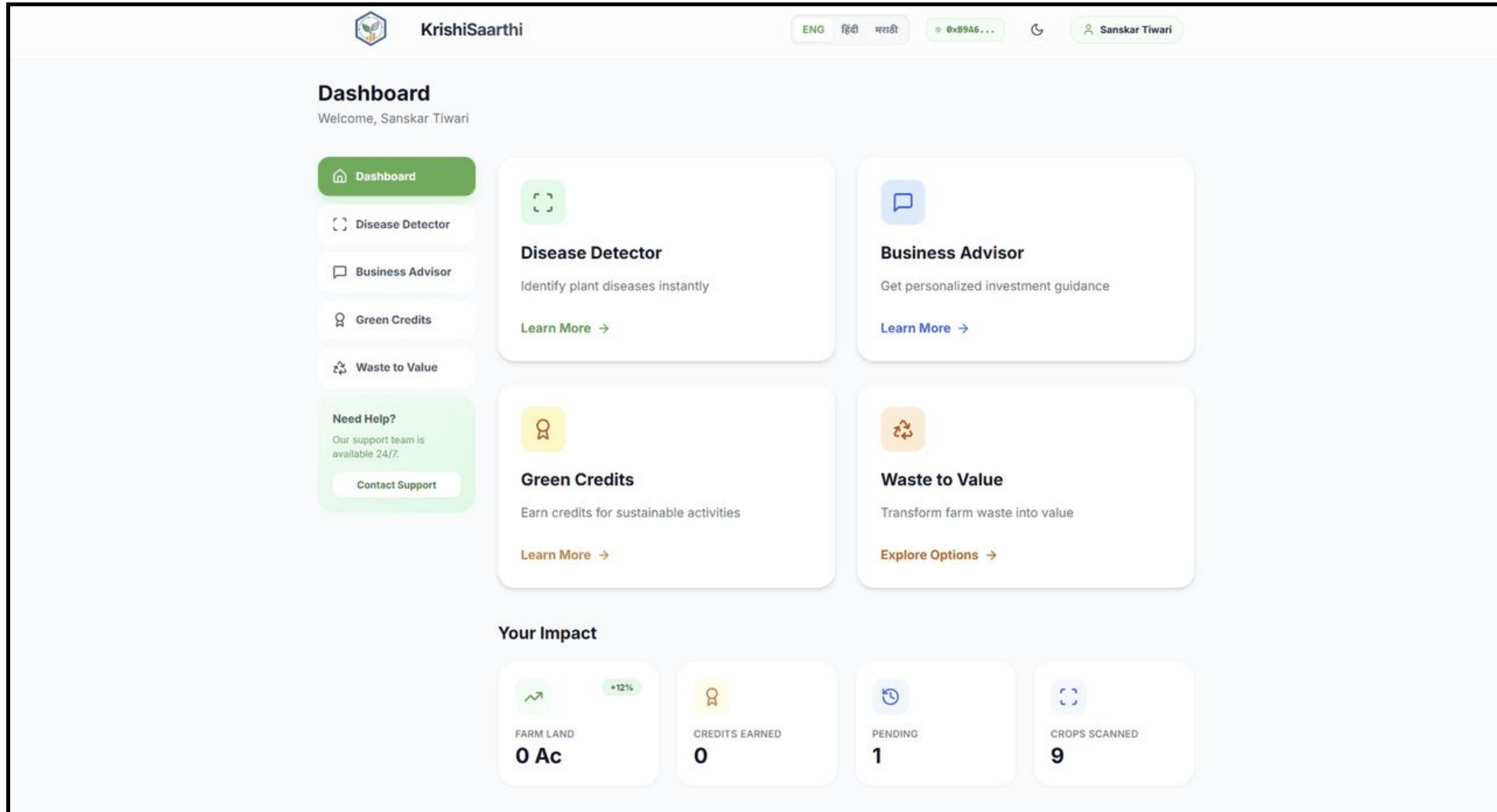
LAND REQUIREMENT

- 4,000 - 6,000 sq.ft (Shed + open area + feed storage)

INVESTMENT BREAKDOWN (REALISTIC)

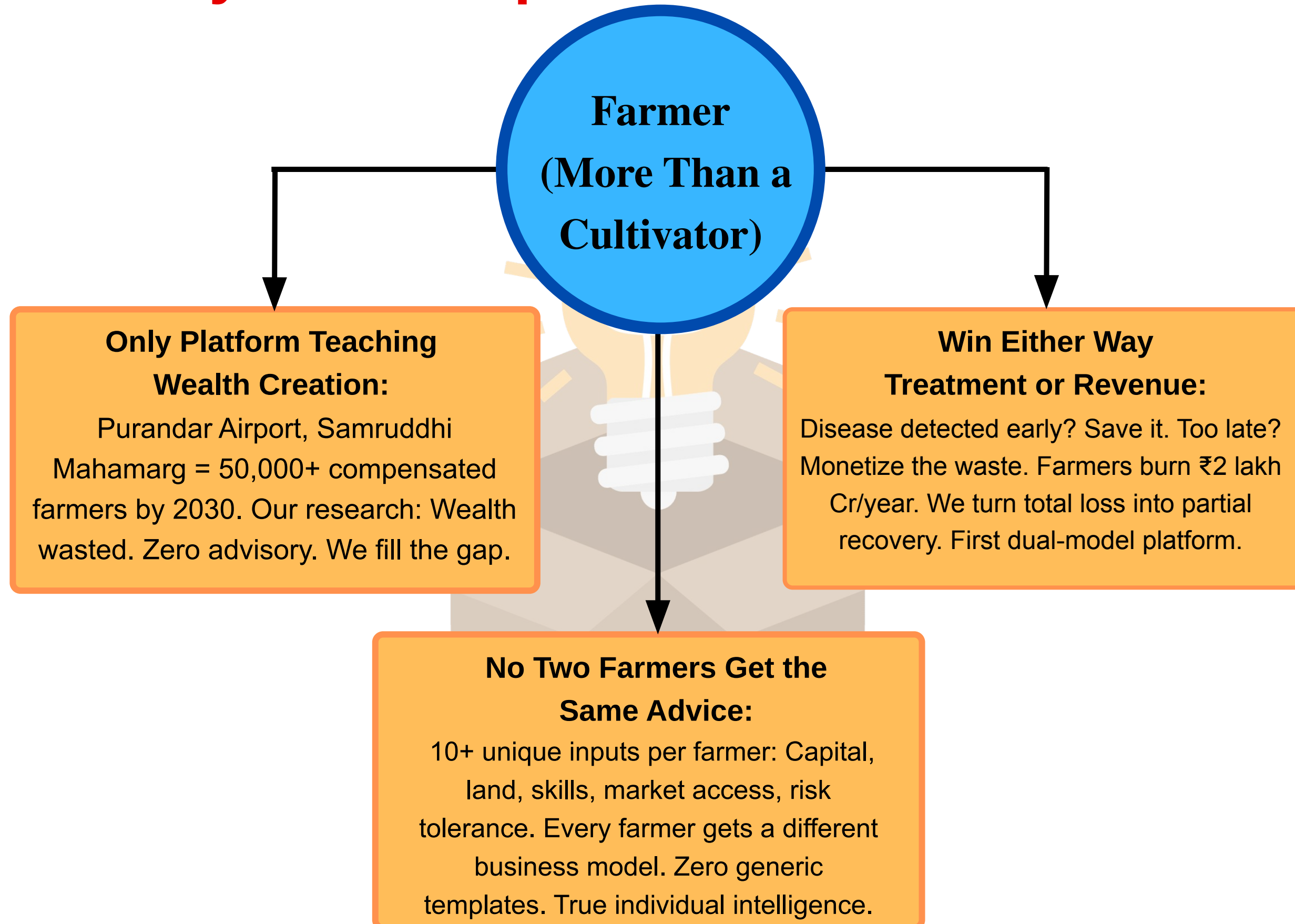
- Total: ₹10 lakh - ₹13 lakh
- Purchase of 6-8 crossbred cows
- Cattle shed construction
- Equipment and initial feed

Screen shots of your project -



Novelty and Uniqueness

A Unique Platform that understands the human behind the Farm



Blue Ocean Strategy

Not competing. Creating
a new niche: "Farmer
Wealth Management +
Sustainability
Marketplace"

Sources:

*Bharatmala Pariyojana (morth.nic.in),
Samruddhi Mahamarg (msrdc.org),
Purandar Airport (aai.aero). Field research:
Sharad Jagtap (Purandar), Kiran Salgude
(Lasalgaon).
IFPRI Study 2019 on crop burning
economic loss. PlantVillage Dataset
(Mohanty et al., 2016).
Adjacent Players analysis: AgroStar,
DeHaat, BharatAgri (crop-generic advisory
platforms).*

GitHub Link

<https://github.com/SanTiwari07/KrishiSaarthi>



KrishiSaarthi Public

Watch 0 Fork 1 Star 0

main 1 Branch 0 Tags

Go to file Add file Code

Activity

sruj08 Added project Report pdf 9d64929 · 1 minute ago 31 Commits

1_VOIS	added new features , fix UI bugs	2 days ago
Backend	changes	yesterday
Frontend	changes	yesterday
Logo	added backend and new UI	2 months ago
Photos	fixed languages and photos	2 months ago
blockchain	added marketplace solidity contract	last month
public	added backend and new UI	2 months ago
.firebase	added backend and new UI	2 months ago
.gitignore	changes	yesterday
DEPLOYMENT.md	updated readme and fixed language error	2 months ago
DETAIL.md	updated detail	2 months ago
README.md	updated readme	2 days ago
VOIS_KRISHISAARTHI_TEAM15_PROBLEMSTAT...	Added Problem statement pdf	2 minutes ago
VOIS_PROJECTREPORT_2025_TEAM15.pdf	Added project Report pdf	1 minute ago
firebase.json	added backend and new UI	2 months ago
firestore.indexes.json	added backend and new UI	2 months ago
firestore.rules	added new features , fix UI bugs	2 days ago
package-lock.json	added backend and new UI	2 months ago
package.json	added backend and new UI	2 months ago
write_app.py.bak	changes	yesterday

About

KrishiSaarthi combines cutting-edge AI for disease detection and business advisory with a blockchain-based Green Credit Marketplace to empower farmers.

krishisaarthi-59c47.web.app/

Readme Activity 0 stars 0 watching 1 fork Report repository

Releases

No releases published [Create a new release](#)

Packages

No packages published [Publish your first package](#)

Contributors 3

- sruj08 Srujan Satav
- SanTiwari07 Sanskar Tiwari
- kanishkasalgude Kanishka Salgude

Deployments

Languages

TypeScript 83.7% Python 13.4% Solidity 1.9% Other 1.0%

Future Scope



Account Abstraction (ERC-4337)

MetaMask complexity and private key management create high technical barriers for farmers.

Passwordless blockchain access via OTP/Aadhaar biometric. Crypto benefits without crypto friction.



Corporate Floor Pricing

Green credit market price volatility causes income uncertainty for participating farmers.

Pre-committed corporate buy-back guarantees ensure stable, predictable monthly income.



Validator Network Expansion

Manual verification doesn't scale as user base grows from hundreds to thousands nationwide.

Partner with agricultural universities, NGOs, and KVKs to create distributed verification infrastructure.



Government Registry Integration

Operating independently without official regulatory recognition limits market legitimacy.

Synchronize with upcoming government carbon credit registries for maximum compliance and trust.



Pan-India AI Coverage

Current disease detection limited to specific crops and Maharashtra region only.

Expand AI models to 50+ major Indian crops across all 28 states with region-specific intelligence.



Agri-Business Training Partnerships

Business advisory alone insufficient—farmers lack execution skills for new ventures.

Partner with agri-businesses for subsidized skill training programs (₹2,000/farmer enrollment model).



High-Value Crop Marketplace

Farmers hesitate to adopt modern farming for exotic crops due to market uncertainty fears.

Direct partnerships with hospitals and premium hotels ensuring guaranteed orders for specialty produce (strawberries, exotic vegetables).

Bank Details

Full Name (as per bank records):	Bank Name	Branch Name	Account Number	Account Type (Savings / Current)	IFSC Code
SRUJAN GANESH SATAV	BANK OF MAHARASHTRA	PUNE HADAPSAR I.E.(81)	60493236083	SAVINGS	MAHB0000081
KANISHKA KISHOR SALGUDE	BANK OF BARODA	GANGAPUR ROAD	97590100006841	SAVINGS	BARB0DBGNGA
SANSKAR MANOJ TIWARI	HDFC BANK LTD.	LAXMIPURI-KOLHAPUR	50100043699392	SAVINGS	HDFC0001274

शाखा Branch: 14/06/24

Branch: PUNE HADAPSAR I.E.(81)

पता Address: hadapsar pune center

दुरध्वनी क्र. Tel. No. 26872006

MICR Code: 411014020

IFSC Code: MAHB0000081

Call Centre Toll Free No.-1800 102 2636/1800 233

Account No: 60493236083

Account Type: SB-Chq General-Pub-IND-ALL

Account Open Date: 14/06/24

Passbook No: 1

Passbook Type: ORIGINAL

Mr. SRUJAN GANESH SATAV

Address: NEAR SAVATAMALI TALIM HNO 141 NARALI WADA GALLI MAL ALI URULI DEVACHI PUNE 00412308

OPERATING SINGLY

निर्माणक दिनांक Date: 14/06/24

प्रधिकृत अधिकारी Authorised Official

शाखा / Branch

पासबुक भरतेवेळी वापरण्यात येणारे संक्षेप पुस्तिका लिखते समय प्रयोग किये गये संक्षेप

Abbreviations used while completing Pass Book

ACH स्वयंचालित स्वचालित Automated Clearing

CBS कोअर बँकिंग कोर बँकिंग Core Banking Solutions

CHQ चेक

CLG संगणकीय

CR क्रेडिट

DR डेबिट

ECS इलेक्ट्रॉनिक स्वचालित

GST वस्तु आणि सेवा

INTT व्याज

KYC आपल्या प्र ओळख

TRFR अंतरण/हस्तांतरण

WDL काढणे

1 Missed call Balance Enquiry 9222 281818

2 Last 5 Transactions Enquiry (Text Message) 7287 888886

3 Last 30 Days Transactions (On Email) 7287 888887

4 Whatsapp Banking 7066 036640

TEAM MEMBER 1 : SRUJAN GANESH SATAV

बँक ऑफ बड़ौदा Bank of Baroda India's International Bank

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QR Code

याद रखें / Remember:

• आपके खाते में नवीनतम जानकारी, आपका नाम, मोबाइल नंबर एवं ई-मेल आईडी अद्यतन होने चाहिए। Your account should be updated with your latest KYC, Nomination, Mobile number & Email ID

• अपनी पासबुक को सावधानी पूर्वक रखें। अपनी पासबुक पर हस्ताक्षर न करें। पासबुक को नियमित रूप से अद्यतन करें। किसी भी प्रकार की विसंगति होने की सूचना तत्काल दी जानी चाहिए। Preserve your passbook carefully. Do not put your signature on passbook. Get passbook updated regularly. Any discrepancy should be notified immediately.

• कृपया अपनी व्यक्तिगत जानकारी, प्रयोगकर्ता आईडी, पिन, पासवर्ड, सीपीपी संख्या किसी को न बताएं। कॉल या ई-मेल के माध्यम से इस प्रकार की जानकारी मांगे जाने पर सावधानी से सुनिश्चित किया जाना चाहिए। Please do not give your personal information, user IDs, Pins, Password, CVV number to anyone. Any calls or emails requesting for such information should be notified to the branch.

• खाते के लिए पहली पासबुक नि:शुल्क होगी, शुल्क का भुगतान किए जाने पर डुप्लीकेट पासबुक उपलब्ध करवाई जाएगी। First passbook in account is free. Duplicate passbook may be provided on payment of fee.

• प्रत्येक अर्द्ध वर्ष में 50 क्रेडिट (स्वामी अनुदेतो, बैंकलपिक डिस्टिब्यूटरी बैनल, सेवा प्रणाली से संबंधित प्रविष्टियों को छोड़कर) की अनुमति होगी। 50 प्रविष्टियों से अधिक लेन देन होने पर प्रचार लगाया जाएगा। 50 debits (excluding Standing instruction, Alternate Delivery Channels, related to service charges) per half year is permitted. Transaction exceeding above 50 will be charged.

• व्याज की गणना दैनिक आधार पर की जाएगी और तिमाही की समाप्ति के 15 दिनों के भीतर खाते में जमा किया जाएगा। Interest is calculated on daily basis and credited to accounts within 15 days of end of quarter.

Branch Name: GANGAPUR ROAD Phone: 50100043699392

Branch Address: SUKSHANTI HEIGHTS NARSINHANAGAR, NASHIK, INDIA

Branch Email ID: dngsa@bankofbaroda.com

MICR Code: 422012018 IFSC: BARB0DBGNGA [Fifth character is zero]

Customer ID: NX9D09330 FPO NO: NA

Account Number: 97590100006841 A/c Opening Date: 25-11-2016 00:00:00

Account Name: KANISHKA KISHOR SALGUDE

Address: ASARA NIWAS SAMARKAR NAGAR GANGAPUR ROAD NASHIK NASHIK MH 422013

Nominee Name: KISHOR UTTAMRAO SALGUDE

TEAM MEMBER 2:KANISHKA KISHOR SALGUDE

Call Toll Free for:

Account Balance - 1800 270 3333

Chequebook - 1800 270 3366

Mini Statement - 1800 270 3355

Account Statement - 1800 270 3377

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Account Number: 50100043699392

Customer Name: SANSKAR MANOJ TIWARI U/G MANOJ TIWARI

Customer Id: 55247668

A/C Open Date: 25/04/2014

Joint Holder: MANOJKUMAR H TIWARI

Address: FLAT NO B-607, OM DATTA CHILE PARK, NEAR VISHWAKARMA PARK, PRATIBHA NAGAR, KOLHAPUR

City: KOLHAPUR

Pin Code: 416002

State: MAHARASHTRA

Country: India

Branch Tel No: 98906 03333

MICR Code: 416240003

IFSC Code: HDFC0001274

Product Code: 146

A/C Currency: INR

Branch Code: 1274

Branch Name: LAXMIPURI - KOLHAPUR

Branch Address: HDFC BANK LTD HEDA CHAMBERS, GROUND FLOOR, 1466, C-WARD, KONDA

City: KOLHAPUR

Pin Code: 416002

State: MAHARASHTRA

Country: India

Branch Tel No: 98906 03333

MICR Code: 416240003

IFSC Code: HDFC0001274

Mobile No: 919225068404

Nomination: Not Registered

Stamp: 02/08/2024

TEAM MEMBER 3:SANSKAR MANOJ TIWARI



JAI JAWAAN, JAI KISAAN

जय जवान, जय
किसान

Thank You