

Farm-Easy: Aid to farmers

Inspiration

India has progressed in all sectors by establishing a strong foothold in the “space race” to developing multimillionaire businesses. But, the greatest of all achievements is that of our Bhoomiputras! They have managed to support the hunger needs of such a huge economy with rudimentary and traditional farming methods.

The problem

Although agriculture is an important sector of the Indian economy, farmers have always faced a lot of issues resulting in a tragic fall in the number of farmers and farming land. Over the last 5 years there has been a steady rise in the rates of farmers committing suicide. The National Crime Records Bureau of India reported that a total of 296,438 Indian farmers have committed suicides since 1995,

One of the major reasons which accounts for this is farmers fail to repay the loans due to low-quality yields, high-interest rates, lack of knowledge about the market, and crops.

The prevailing farm management systems provide assistance on the best agricultural practices to be followed. Only a handful amount of solutions have been developed to assist farmers on the financial front

The Solution

We have made an attempt to address issues like suggesting best agricultural practices as well as reducing the lethargic and tedious approach of availing loans for agro practices.

Farm-Easy is a blockchain based platform that would assist the farmers in :

- Finding the best crop based on their region, weather, and soil
- Avail loans at optimum interest rates from pool investors.
- The risk of investment loss is reduced for the liquidity providers (financial entities) due to the pool investment approach.
- Use of NFT (Non-Fungible Tokens) reduces risk of losing entire farming land due to partial repayment of loans.

What it does:

1. Agro-Dashboard:

The dashboard helps in suggesting best agricultural methods to be practiced for a better yield. It accounts for factors like weather, cropping cycle (Kharif/ Rabi), market rates etc. to help in increasing the yield.

2. Blockchain based loan interface:

- It will assist in procuring loans to the farmers using Blockchain based P2P (peer to peer) platform.
- Inspired by the DeFi (Decentralized Finance) ecosystem, our platform is based on the P2P digital INR pool providing a better rate of interests to lenders [financial entities and individual investors] and the beneficiaries [farmers]
- The risk of investment loss is reduced for the liquidity providers (financial entities) due to the pool investment approach.
- Farmers can avail loan from the digital INR pool by collateralizing their land in terms of NFTs (Non-Fungible Tokens) issued by Govt. based on details of the farming plot at the local Tehsildar office.
- Assigning NFTs to smaller pieces of farming land helps in preventing the entire confiscation of land in-case of partial repayment of their debts.

How we build it

To tackle the problem addressed above we decided to build a web-based platform. In the initial phase, the team was divided into 2 groups. The first group was involved in research and designing layouts for the website. The designs were finalized using Figma while the others were involved in developing web pages on the given designs.

Tech stack used:

- Designing using Figma
- Front end development with HTML & CSS (scratch coding).

- Back end development : Blockchain based smart contracts using Ethernet: Ropsten Test Network.

Challenges we ran into

This was our second experience at Major League Hackathon. We were short on experience yet determined to develop a solution. It was a tricky part to address the problems related to the agro sector. Integrating the smart contracts with our front end was a tricky job, thanks to the midnight mentoring session that we figured out a way.

Accomplishments that we're proud of

We are extremely proud that we made an attempt to develop a solution for Indian Farmers. The process gave us a deeper insight of the India agro sector and the problems related to it

❖ What we learned

Debugging a lot of errors and solving many issues we finally got our project ready. We're proud that starting from scratch as a beginner we created a project learning a lot of new things, tips and tricks, and facts. We definitely learned about our Indian Agriculture and Farmers during the Research work.

❖ What's next for Farm-Easy

- Investors Login:- This would allow everyone to invest their money
- Farmers Insurance:-