

AgroTech

Marketplace Design  
and Development

Product Engineering

## A Digital Marketplace for Direct Farmer-Buyer Transactions

Leveraging ReactJS, NodeJS, and Serverless AWS to architect a high-performance marketplace that integrates secure escrow payments, ensures VAPT compliance, and streamlines direct transactions between farmers and buyers, redefining agricultural trade dynamics.





# iProgrammer, in a nutshell



## 17 Years of Excellence

For 17 years, iProgrammer has excelled in bespoke product engineering and more.



## 300+ Products Live

Successfully delivered premier products across both web and mobile platforms to date.



## Fortune India 500

iProgrammer has been the technology partner to Fortune India 500 - Hero Corp, Tata Communications and HDFC.



## 350+ Tech Team

We are more than 350 tech experts with a strong background in various leading technologies.



## 4 Million DAUs

Our B2C mobile application developed for Vodafone-Idea currently has 4 million daily active users (DAUs).



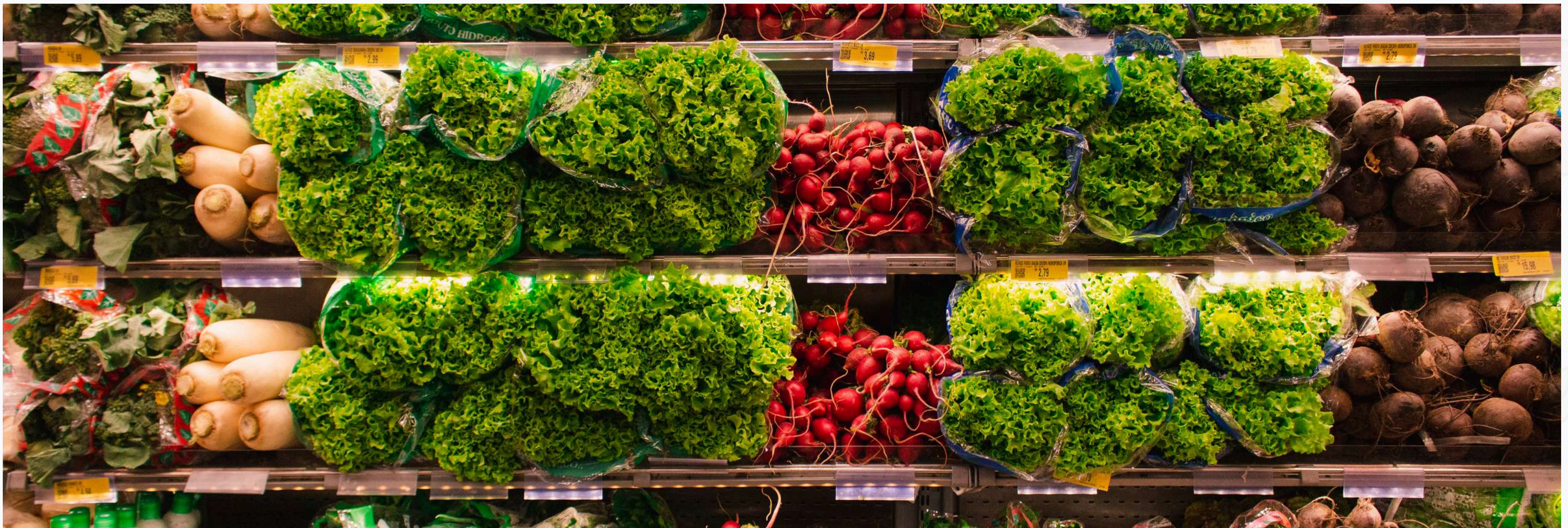
## 128 Million End Users

Our applications have been utilized by around 128 million end users globally.



# Business Requirement

The client aimed to create a **digital marketplace** that facilitates direct sales of agricultural produce, eliminating intermediaries such as Agricultural Produce Market Committees (APMCs). The platform would **enable farmers and buyers to connect** directly, ensuring transparency and fair pricing in agricultural trade. The solution also needed to be scalable, robust, and compliant with the latest security protocols like VAPT. Additionally, the client sought **advanced analytics capabilities** to monitor trade patterns and provide actionable insights for users.





To address the client’s requirements for a digital marketplace that empowers farmers and buyers, iProgrammer developed a comprehensive solution focusing on technology, security, and scalability. Our approach was structured around three major pillars:

Key needs included:

End-to-End Platform Development

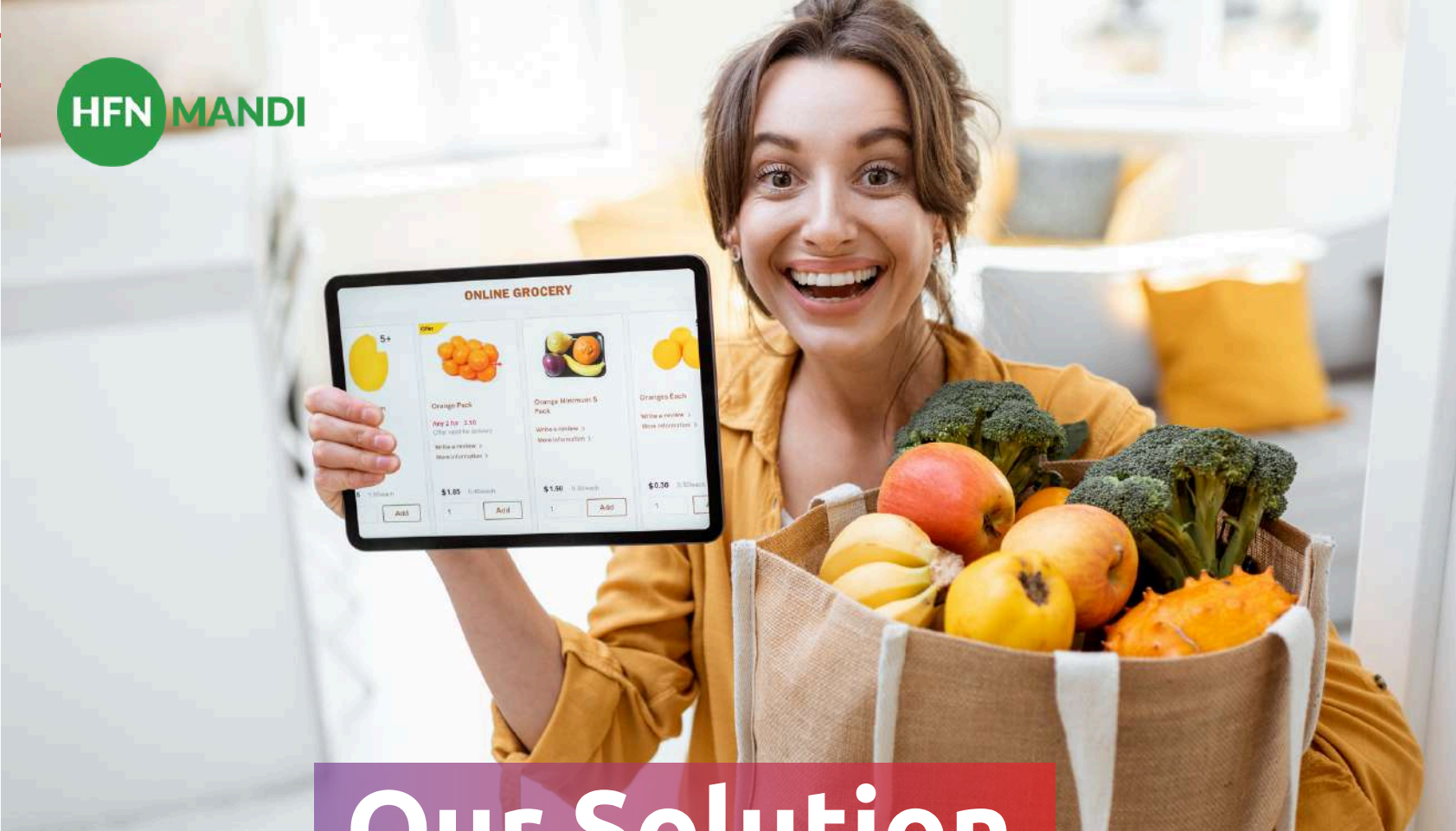
Designed and built a feature-rich platform using ReactJS for the frontend, NodeJS for the backend, and MariaDB for database management. The platform supported seamless user registration, product listings, and real-time transactions.

Secure Financial Integration

Implemented an Escrow-based payment mechanism to facilitate secure and trust-based transactions, replacing conventional gateways to align with the unique needs of agricultural trade. The solution ensured VAPT compliance to mitigate potential security vulnerabilities.

Cloud-Native and Scalable Architecture

Deployed the platform on a serverless AWS infrastructure to ensure scalability, cost efficiency, and resilience, enabling the client to handle varying user demands effectively without compromising performance.



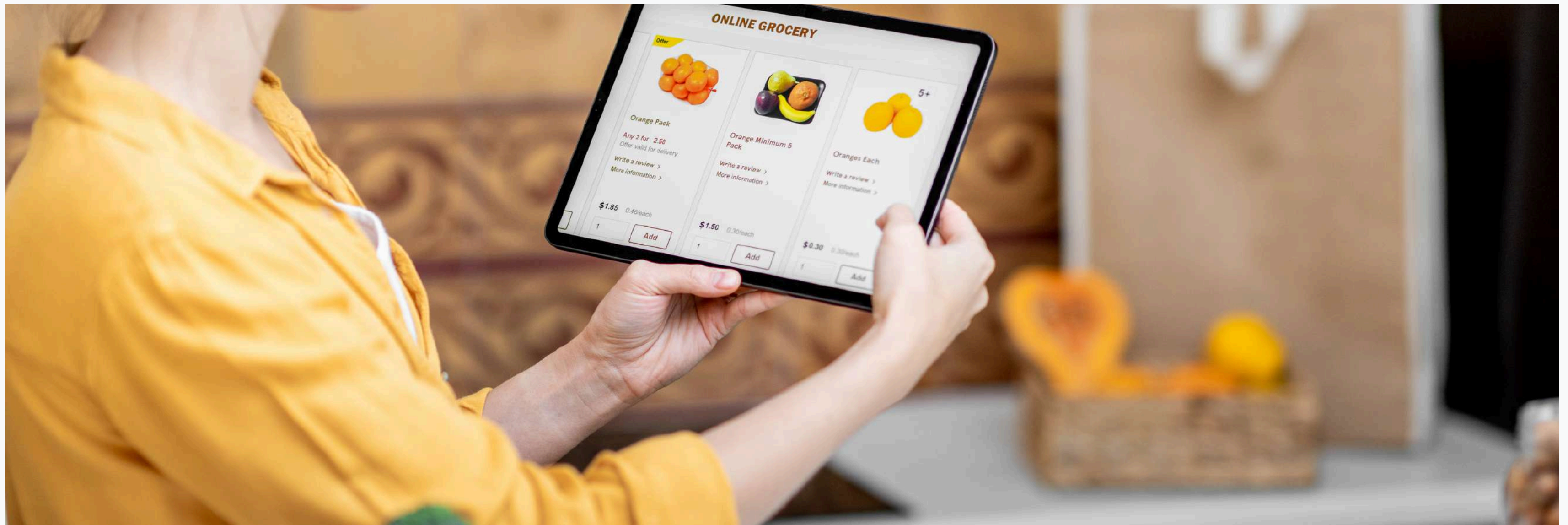
Our Solution





# Solutions Beyond the BRD:

In addition to meeting the client's outlined requirements, we **proactively recommended** integrating an **Escrow-based payment system** instead of a conventional payment gateway. This strategic choice aligned with the nature of agricultural transactions, ensuring greater security and trust between buyers and sellers by holding funds until both parties confirmed the successful completion of the trade. This solution not only enhanced the platform's reliability but also addressed potential disputes effectively, offering a **tailored approach to the client's business model.**

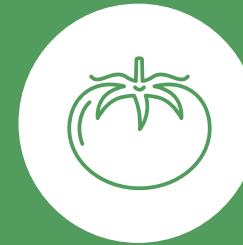


# Techstack as fresh as farm veggies!



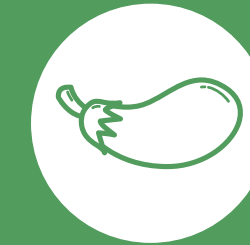
## Frontend - React JS

A library for building dynamic, reusable UI components.



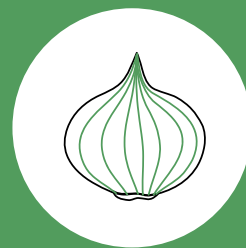
## Backend - Node JS

A runtime for scalable, asynchronous server-side applications.



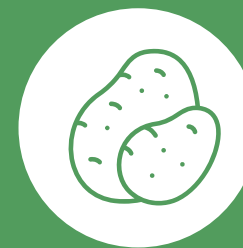
## Database Layer - MariaDB

A secure, efficient relational database.



## DevOps / Infrastructure - Serverless AWS

Scalable cloud hosting with no server management.



## Security Layer - VAPT Compliant

Ensures rigorous security testing and protection.



## Mobile Development - React Native

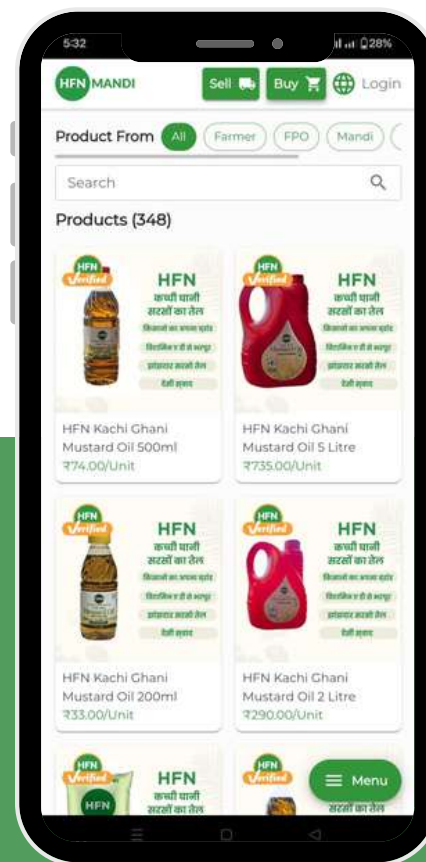
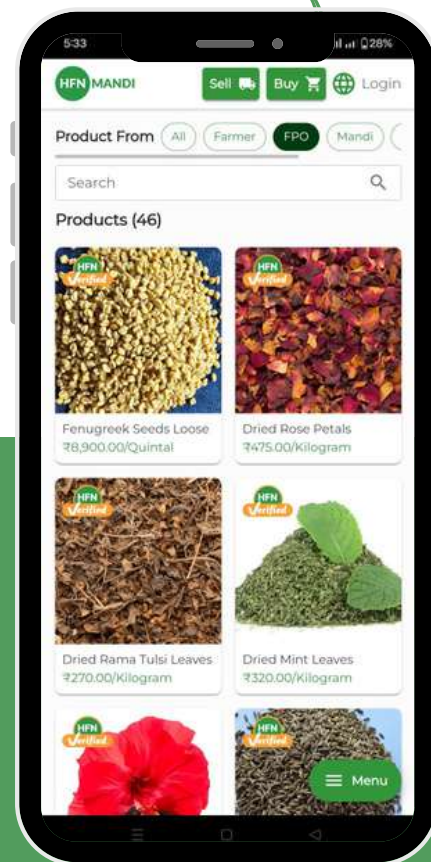
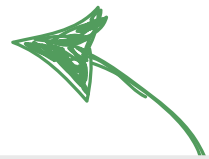
Cross-platform mobile app development framework.

**Integration & APIs** -> Bank Escrow Integration: Secure APIs for escrow-based financial transactions.

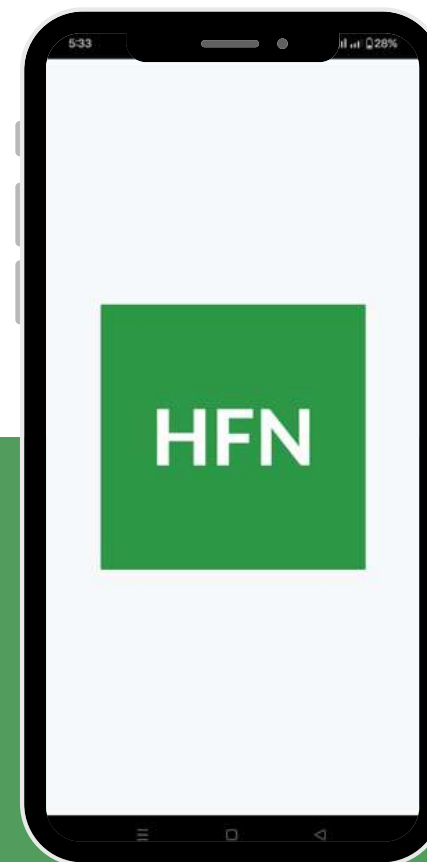


# HFN Mobile Marketplace – A Glimpse

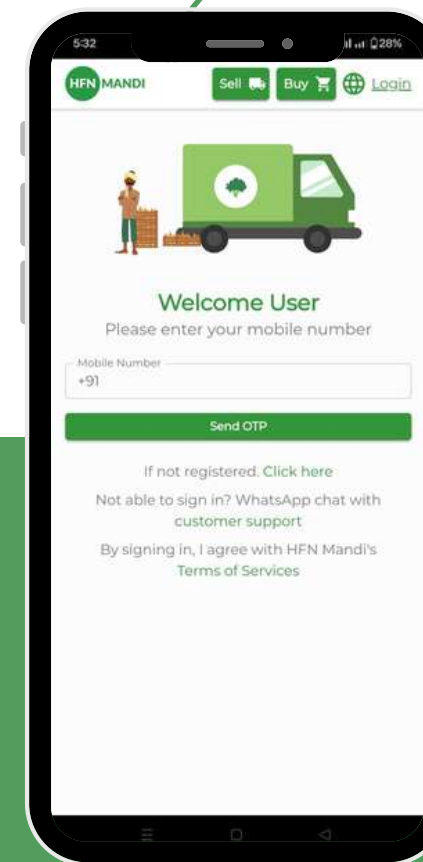
PRODUCT LIST



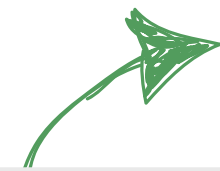
PRODUCT LIST (2)



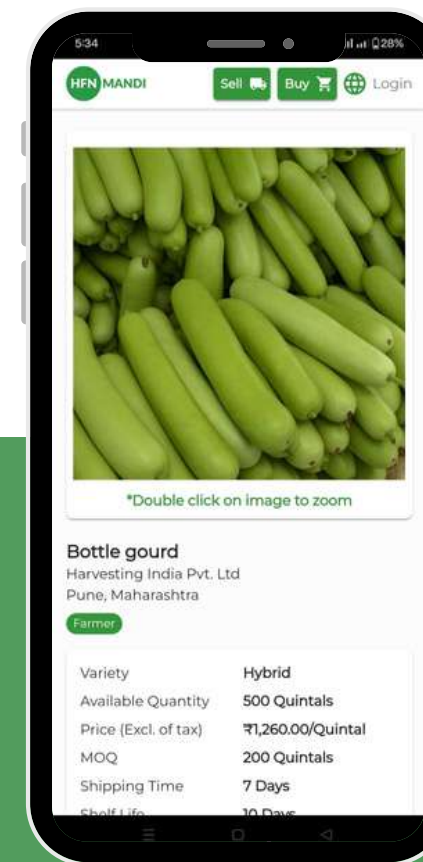
SELLER SIGN UP



CUSTOMER CARE



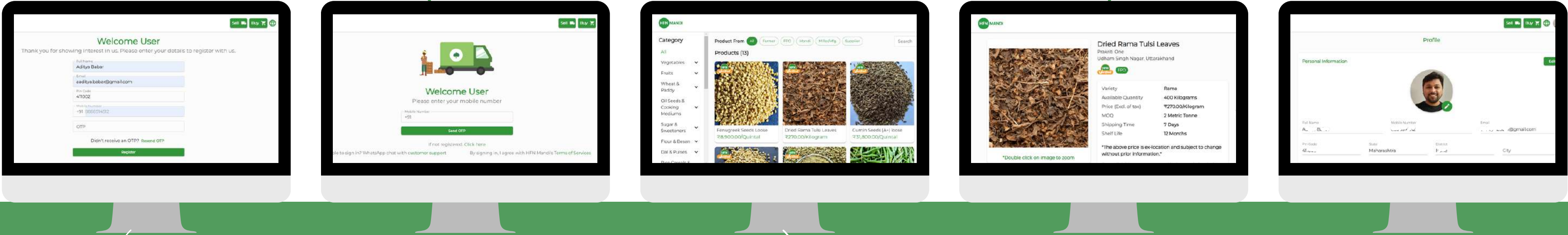
PRODUCT PROFILE



# HFN Web Marketplace – A Glimpse

SELLER SIGN UP

PRODUCT DESCRIPTION



REGISTRATION FORM

PRODUCT LISTING

SELLER PROFILE



# TOP QUALITY PRODUCT ENGINEERING IN **5 SIMPLE** STEPS

Listening, Building and Delivering since 17 years. India's emerging boutique IT enterprise.



## DISCOVERY & RESEARCH

We analyze, evaluate and engage with you to help us understand you and your business requirements better.



## PLAN & STRATEGIZE

We use insights, inspirations and information to set up a project development path in sync with your budget and time constraints.



## BRAINSTORMING & DESIGN

Every minute detail is pondered over to help craft an experience worth cherishing right from wireframes to working prototypes.



## DEVELOPMENT & TEST

This is where we apply our technical wizardry which helps create quality and well tested solutions that your customers will love.



## LAUNCH & MAINTENANCE

We ensure a smooth launch with user training and marketing, followed by ongoing care like bug fixes, updates, and performance improvements driven by user feedback.





# What do we offer?

## Our Services



### Product Engineering

- UI/UX Engineering
- Web Application Development
- Mobile App Development
- Backend/Middleware Development
- Frontend Development
- Data Analytics
- Legacy System Modernization



### Cloud & DevOps

- Cloud Consulting
- DevOps Consulting
- DevSecOps Consulting
- CI/CD & Infrastructure Automation
- Kubernetes Adoption



### Internet of Things (IoT)

- Device Connectivity
- Data Analytics and Visualization
- Security Solution
- Cloud Integration and Management



### Startup Consulting

- Product/MVP Development
- Statutory Compliance Consulting
- Technology Consulting
- Application Development
- UI/UX Design and Business Branding
- Customer Experience Strategy



# LET'S BREW SOME COFFEE TOGETHER.



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