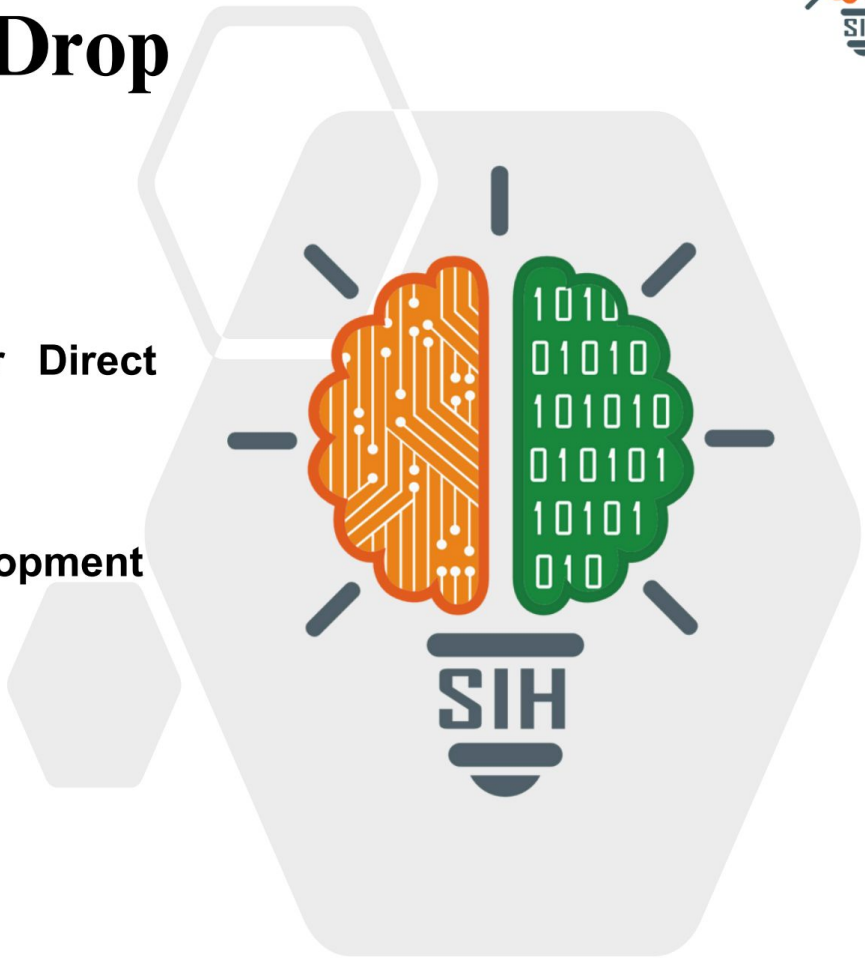
SMART INDIA HACKATHON 2024

FarmDrop



- **Problem Statement ID – 1637**
- **Problem Statement Title- Mobile App for Direct Market Access for Farmers**
- **Theme- Agriculture, FoodTech & Rural Development**
- **PS Category- Software**
- **Team ID- 6528**
- **Team Name - TechHarvesters**

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FarmDrop

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Proposed Solution

FarmDrop simplifies the farmer-to-consumer journey with features like detailed profiles for farmers and buyers, easy produce listings with photos, and flexible price negotiation options (fixed price or bidding). The app supports secure in-app payments, integrates with logistics partners for delivery and tracking, and includes a two-way review system to build trust. It also offers learning resources to enhance farming practices and e-commerce skills. Additionally the multilingual support added bridges language barriers allowing farmers to interact in their preferred language.

How FarmDrop adresses the problem?

- Direct Sales: Farmers connect directly with consumers and retailers, eliminating intermediaries and keeping more profits. This enables better pricing and direct customer relationships.
- Control Over Sales: Farmers manage their sales process entirely, listing produce with photos and details, negotiating prices, and handling secure transactions, all within the app.

Key Features

- User Profiles: Farmers and buyers with detailed profiles and preferences.
- Product Listing: Easy listings with photos, descriptions, and real-time updates.
- Price Negotiation: Fixed price and bidding options for transactions.
- Reviews & Ratings: Build trust with a two-way rating system.
- Learning Resources: Access to farming best practices and e-commerce training.
- Multilingual Support: Supports multiple languages like hindi and marathi in addition to english.
- Chatbox: Allows farmers and customers to directly interact with each other.
- Online payment system: Supports multiple payment methods like UPI, cards, netbanking etc.

Our USP

- Hyper-Local Weather Forecasts: Provides precise weather predictions tailored to the farmer's location.
- Pest Alerts: Notifies farmers of potential pest outbreaks, allowing timely interventions.
- Predictive Demand Forecasting: Offers insights into market demand trends, helping farmers plan planting and harvesting schedules effectively.

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TECHNICAL APPROACH

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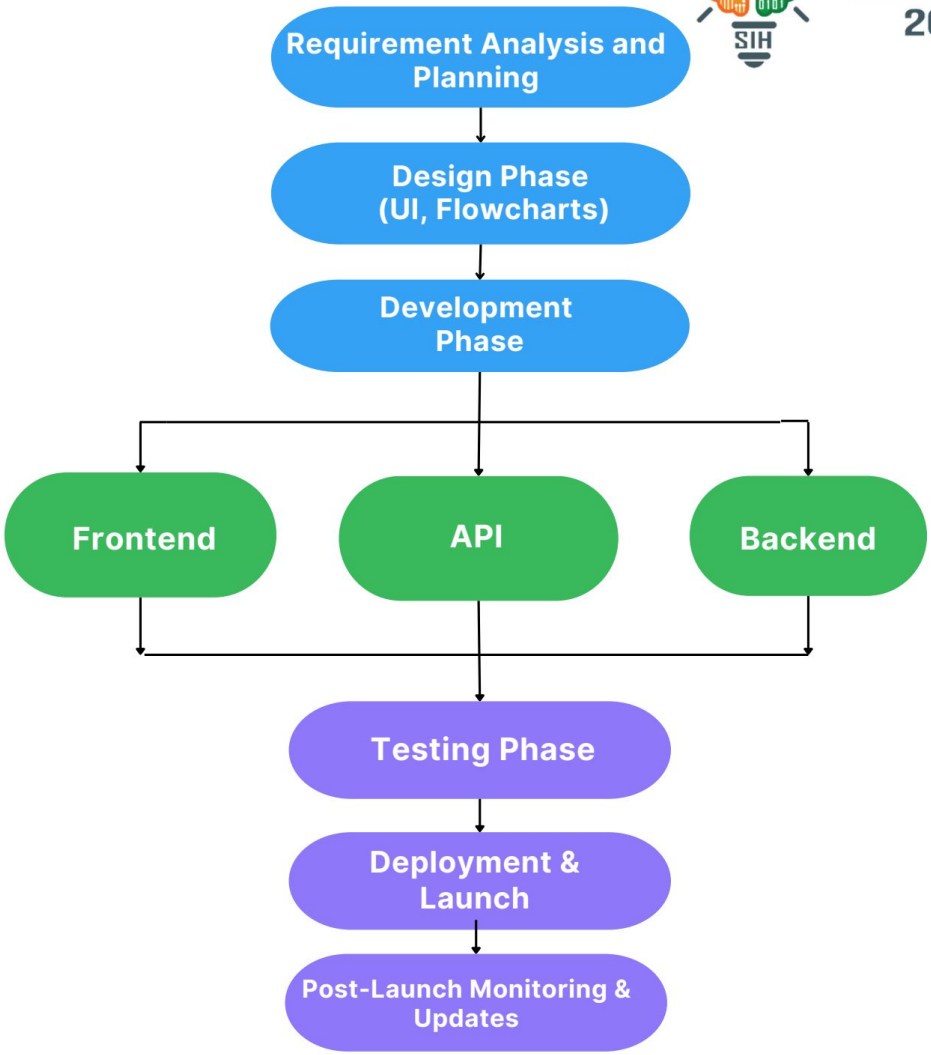
Tech Stack

- Frontend - Flutter
- API - Weather, RazorPay
- Backend - Firebase



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FEASIBILITY AND VIABILITY

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Feasibility Analysis:

- **Technical**: Feasible with current tech; requires scalability, security, and integration.
- **Economic**: Initial costs include development and marketing; revenue from fees and ads; benefits should exceed costs.
- **Operational**: Needs strong marketing, community engagement, and ongoing support.
- **Legal**: Must comply with data privacy and agricultural laws; may require licenses.
- **Market**: High demand for direct farmer-consumer connections.

01

02

Potential challenges and Risks:

- **Connectivity Issues:** Limited internet in rural areas may hinder use.
- **Adoption Barriers:** Resistance to change and need for user education.
- **Competition:** Presence of established or similar platforms.
- **Cost:** High development, maintenance, and support expenses.
- **User Experience:** Ensuring the app is user-friendly and providing adequate support.
- **Financial Risks:** Develop a diverse revenue model and monitor finances closely

Strategies

- **Connectivity Issues:** Add offline features and partner with telecom providers.
- **Adoption Barriers:** Simplify the app, offer training, and engage communities.
- **Competition:** Differentiate with unique features and target gaps.
- **Cost:** Seek funding, start with an MVP, and scale gradually.
- **User Experience:** Test and refine the app, and provide strong support.
- **Financial Risks:** Developing a sustainable revenue model and securing funding.

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IMPACT AND BENEFITS

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Impact

- Increased Farmer Income: Direct sales to consumers can bypass middlemen, resulting in higher profits for farmers.
- Improved Access to Fresh Produce: Consumers gain easier access to fresh, locally-grown food, enhancing their diet and health.
- Empowerment of Small-Scale Farmers: Small farmers gain direct market access, reducing dependency on traditional markets.
- Promotion of Sustainable Practices: Educational resources encourage sustainable farming, improving long-term agricultural practices.

Benefits

Environmental

- Reduced Carbon Footprint: The app minimizes the need for long-distance transportation, reducing greenhouse gas emissions.
- Promotion of Sustainable Agriculture: The educational resources provided encourage farmers to adopt environmentally friendly farming practices.
- Waste Reduction: Direct sales can lead to better alignment between supply and demand, reducing food waste .
- Support for Local Biodiversity: Small-scale farming can help maintain local ecosystems and biodiversity, as opposed to monoculture practices.

Economic

- By supporting local farmers and boosting their sales, the app contributes to the local economy.

Social

- Transparency and Trust: Direct communication and transparent transactions build trust between farmers and consumers.

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RESEARCH AND REFERENCES

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- App Dev Guide
- Learn Flutter
- Flutter Packages
- Dart Basics
- What are API’s
- Weather API
- Farmer Education Resources
- Internationalization
- Payment