SMART INDIA HACKATHON 2025

TITLE PAGE

- **Problem Statement ID – 25076**
- **Problem Statement Title- AI Based Query Support and Advisory System**
- **Theme- Agriculture, Foodtech and Rural Development**
- **PS Category- Software**
- **Team ID-**
- **Team Name - Kamaal Kamal Koders**

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IDEA TITLE

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Farm App : A smart agricultural platform simplifying farmers' journey and decision-making.

- Offers disease detection, soil & weather insights, water level tracking and mandi prices.
- Bilingual chatbot (Malayalam & English) with escalation to nearby officers ensures every query is answered.
- Integrates government schemes & localized advisory, simplifying decisions and boosting productivity.
- Unique for its end-to-end support, AI-driven insights, personalised calendars along with reminders.

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TECHNICAL APPROACH

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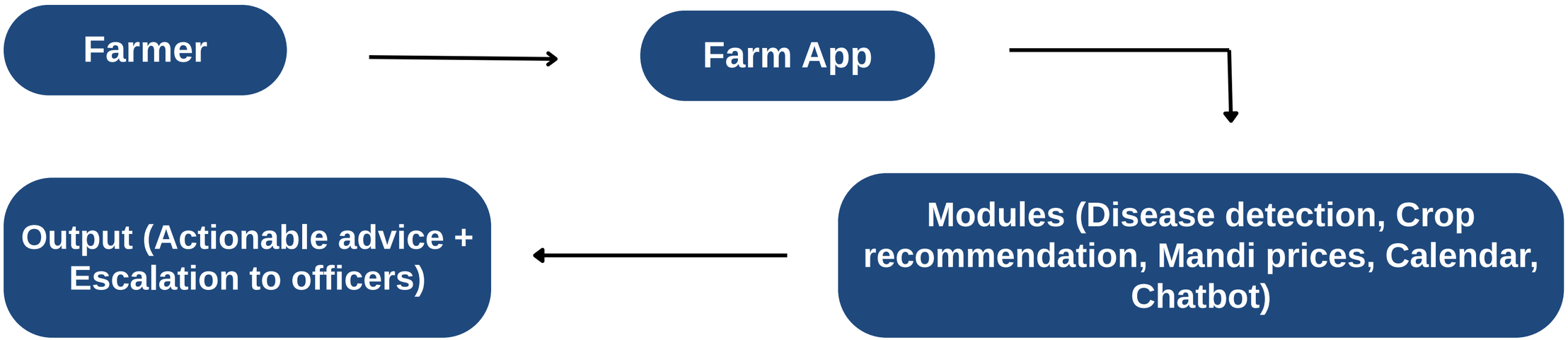
- Python (ML model), CSS, JAVA
- Weather API, Ambee soil API, Agmerknet API, Groundwater API(CGW, Google translator API

Flowchart



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FEASIBILITY AND VIABILITY

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- Farm App is feasible as smartphones and internet access are widely available in Kerala. It’s bilingual and user-friendly interface makes it practical for everyday farmer use.

- Potential challenges include limited digital literacy, farmers’ resistance to new technology, and language or dialect variations affecting chatbot interactions. Inaccurate or incomplete data from sensors or APIs may also impact recommendations.

- Training sessions for farmers and regular updates to models and databases ensure accurate, reliable, and easy adoption.

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IMPACT AND BENEFITS

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- Empowers farmers with timely and localized advisory.
- Improves their decision making in crop management, resource use, and market planning.
- Bridges the gap between farmers and agricultural officers.
- Enhances crop yield, reduces losses through timely interventions, and increases income by connecting farmers with mandi price trends and government schemes.
- Encourages sustainable crop practices, and minimizes resource wastage.
- Provides AI-driven insights, personalized calendars, and escalation support, making advanced tools accessible to small and marginal farm.

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RESEARCH AND REFERENCES

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- ISRO's Geoportal | Gateway to Indian Earth Observation | 2D
- Ground Water Level Monitoring | CGWB