CAPSTONE PROJECT

AI AGENT FOR SMART FARMING ADVICE

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OUTLINE

- **Problem Statement**

- **Proposed System/Solution**

- **System Development Approach**

- **Result (Output Image)**

- **Conclusion**

- **Future Scope**

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PROBLEM STATEMENT

- Farmers in the rural areas are struggled to stay updated with the current market prices of crops and they do not know the correct pest control measures according to their soil type and weather condition. Manually reviewing, filtering, and synthesizing information across multiple domains is time-consuming and inefficient.
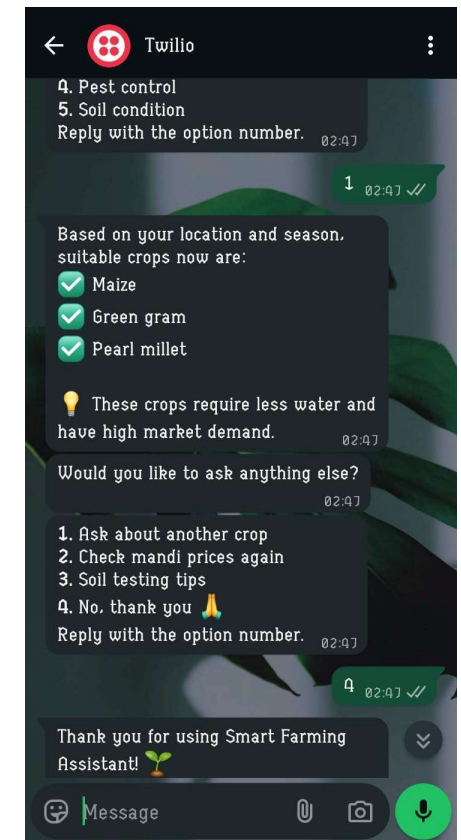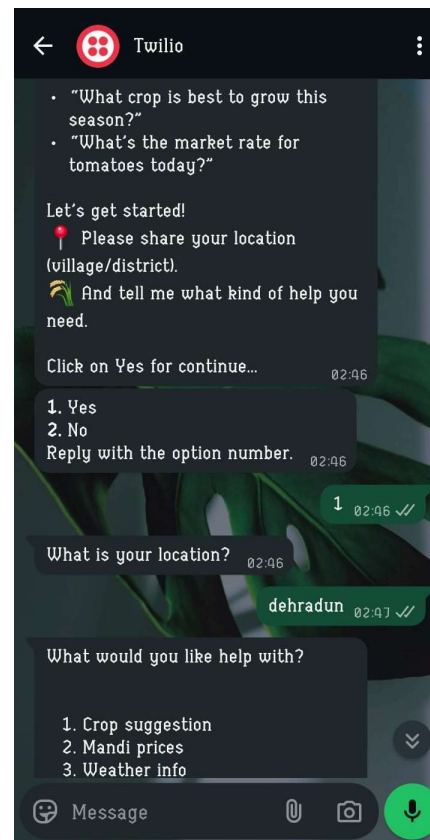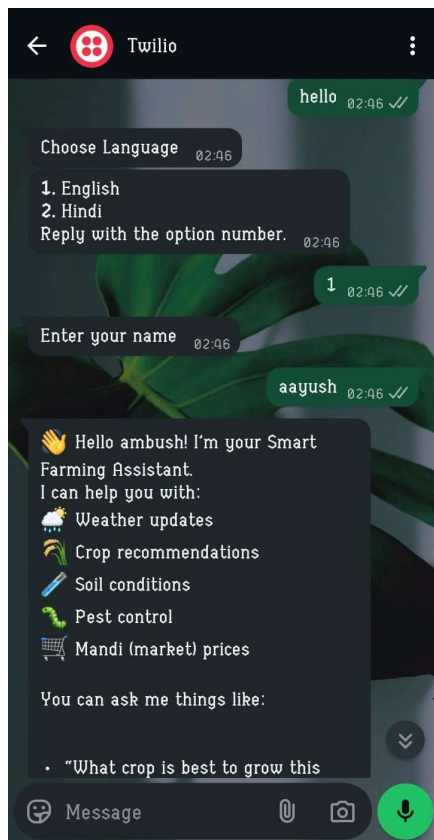
PROPOSED SOLUTION

■ **This agent will significantly reduce the challenge of predicting the crop recommendation, mandi price and weather report, help early-stage farmers to get knowledge more accessible and actionable. This involves leveraging data analytics and machine learning techniques to forecast weather patterns accurately. The solution will consist of the following components:**

    1. Market analysis over price for specific crop or vegetables.

    2. Recommendation of crop based on weather report and soil type.

    3. Query Handling: Responds promptly and accurately to inquiries about crop details, mandi prices, weather report, etc.

    4. User Guidance: Offers step-by-step assistance on government schemes, pest control steps, and soil testing.

    5. Feedback Mechanism: Incorporates user feedback to continuously improve response accuracy and user satisfaction.
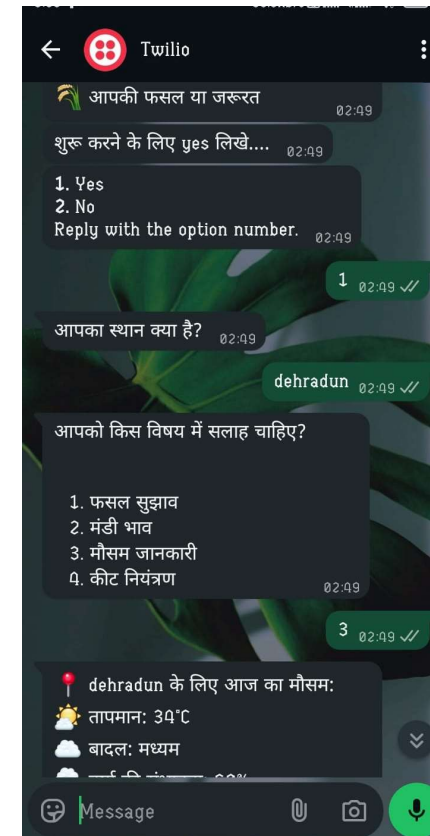
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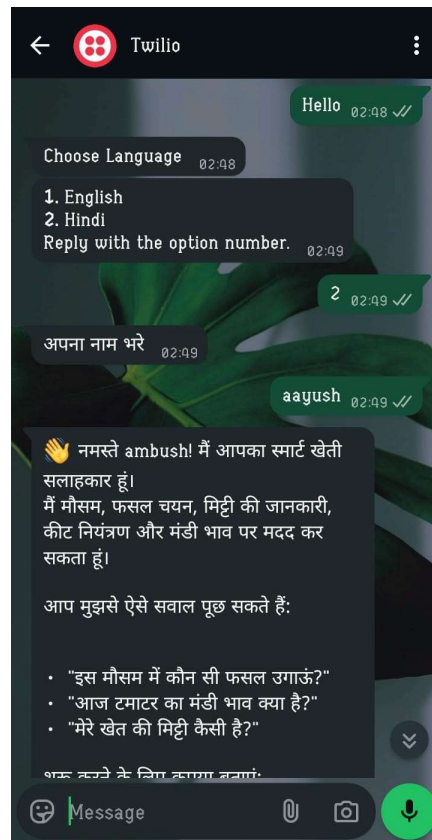# SYSTEM APPROACH

This section outlines the overall strategy and methodology for developing and implementing the AI Agent for Smart Farming Advice chatbot. Here's a suggested structure for this section:

- System requirements : Compatible with modern web browsers and mobile devices.

- Technology Used: IBM Watsonx Assistant for natural language processing, RAG and IBM Granite.

RESULT

RESULT

PROJECT LINK:-

[Aayushbijalwan16/AICTE-EDUNET-IBM: AICTE EDUNET IBM Internship Project](#)

Testing link :- http://wa.me/+14155238886?text=join %20traffic-ago
Step 1 : - Enter "Hello"
And bot will start.
Testing Link only valid till 07 Aug 2025.

CONCLUSION

- The agent can generate crop recommendation based on soil type, weather condition.

- It saves time of Farmer by retrieving trusted data on current market prices from agricultural departments.

FUTURE SCOPE

- Multilingual Chat support

- Personalized Assistance

- Real-Time Collaboration Features

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REFERENCES

- IBM Watsonx Assistant tutorial

- Chat GPT for adding steps in chatbot

IBM CERTIFICATIONS

In recognition of the commitment to achieve professional excellence

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Has successfully satisfied the requirements for:

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THANK YOU