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AI AND CLOUD BASED SMART FARM ASSIST IN KANNADA FOR COCONUT FARMERS

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Abstract— **ABSTRACT-Agriculture is the largest source of livelihood for Indians populations. Artificial intelligence technologies can align agriculture to modern practices. In this Farm Chat system it provides guidance to the farmers using dialog flow, natural language processing and cloud. It recommends suitable policies to the coconut cultivators to overcome their farming-related problems. The important features of this system are weather, marketing value, government schemes and type of soil and videos related to coconut. It also provides transportation facilities for transporting coconuts to the principal market and also responds to farmers queries via voice-based format in the Kannada Language. This conversational agent encourages farmers to grow more coconut plants and products of coconuts.**

Keywords— **Artificial intelligence, Kannada, Cloud, Coconut**

I. INTRODUCTION

Nowadays in Indian agriculture, the human workforce and technology contributes substantially to improvements in crop production. If people adopt agriculture as a key pillar of life, then it never leaves the hands who believe in it and also helps to reduce unemployment only if they have a bit of knowledge about crops, plants, soil, irrigation. The government of India comes up with many websites that help farmers by suggesting information to improve agricultural activities. But most of the farmers are far behind in technology to use websites. Farmers who are living in the rural area unable to access information which is advertised by the government. There are many agricultural related problems faced by farmers, in that coconut farmers also struggle to get proper yield. Even though farmers with a fertile crop, they have to face the middle man problem, inadequate transport to carry their products to the major market. To overcome this non-fulfilment, necessary to analysing, conceptualizing conversational interface to recognize voice interactions and generate voice response for Kannada speaking farmers that can perform tasks such as scheduling appointments, answering questions, assisting users with a wide range of requests, information about the crop, new schemes and transport facilities. For humans, a conversation is natural, and it is a part of everyday life. Hence teach a machine to have conversation with users, Here Conversational experience may not be at the top of the list when thinking about customer support. However it is also a critical element to meet customer expectations personalized. Dialog flow helps to build the conversational interfaces on top of the products and services, providing a powerful natural language for the understanding engine to process and keep track of what users looking for.

II. PROPOSED SYSTEM

A. **Agent –**

Each agent is defined by intents and combined intents can handle a complete conversation. It matches the intent when end users begin a conversation with an agent. This intent should return a response that lets the end-user know what this agent does or what they can say to begin a conversation. The agent response appears in the default response section. Since input didn't match any intent, the default fall-back intent will match and end-user can receive one of the default replies. It repeats the process until the questions handled correctly, and this is the iterative process.

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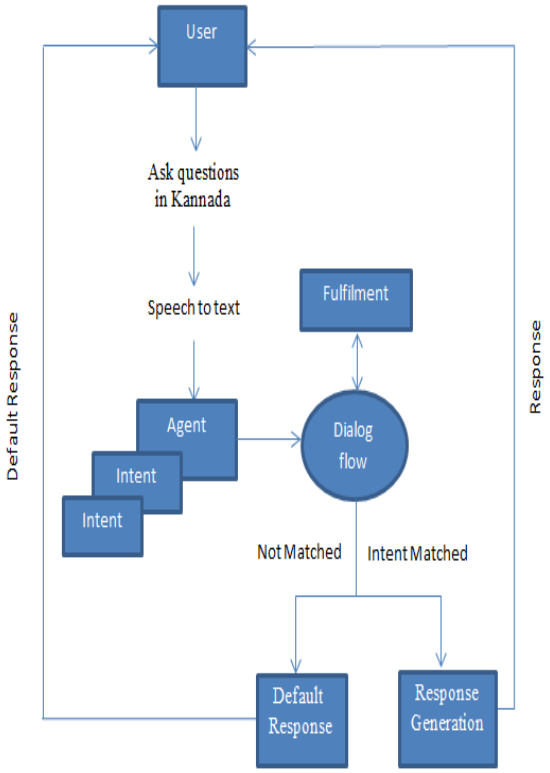

Fig. 1. Design to process users queries via speech

B. Training Phrases –

Training phrases are an example of what the end-user might type or say to our agent, also known as an end user's expression. For example, the end-user might ask, "Which is the best fertilizer for coconut?", "best fertilizer?" or just "fertilizer?" in Kannada. Each of the end-user expressions is unique but has the same intention. By completing iterations, the conversational agent will be intelligent. Agent training pop-up represent that the training is complete.

C. Dialog –

Dialog flow uses training phrases as examples for a machine learning model such as Natural language interpretation to match end-user expressions to intents. The model checks expressions to intents. The model checks the expression against every intent present in the agent and giving intent score and it matches the highest scoring intent. If the highest-scoring intent has a very low score, then the default intent will be matched.

B. Context –

To control the flow of conversation, the system uses context. Input contexts increases the likelihood of that intent being matched when context is active.

B. Transport –

By clicking specific button users can access transport facilities, current market values and updated government schemes. Taxi drivers register their names with the phone number, according to schedule the drivers will active and this is a cycling process. Coconut farmers can easily book a nearby taxi to carry their product to principal markets. Even though end-users book any taxi, the bot will notifies the drivers by sending messages.

III. USER INTERFACE

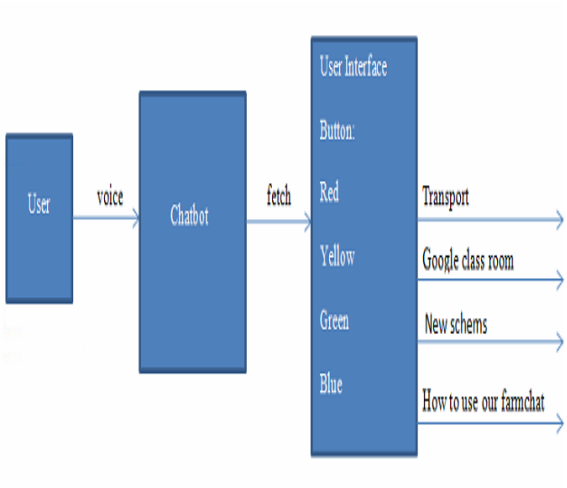

Fig.2. User and chatbot interaction

IV. CONCLUSION

Although there are many agricultural resources available for the farmers, they cannot use it properly because farmers have limited access to information about agricultural without reliable advice, farmers can make poor choices about how to manage their farm. To overcome this problem, the smart farm assist is used and helpful for the lowly literate people. This system enhanced the use of artificial intelligence and cloud-based, scalable services to bring significant improvements in the traditional approach to digital technology.

V. ACKNOWLEDGEMENT

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