AGRICULTURAL-RELATED QUERY CLARIFIER SYSTEM

DOMAIN:

Natural Language Processing

NLP is a branch of informatics, mathematical linguistics, machine learning, and artificial intelligence. NLP helps to analyse the human language and generate the text. Our human language is a highly unstructured phenomenon with flexible rules. If we want the computer algorithms to understand these data, we should convert the human language into a logical form. Natural language processing for Chat bot makes such bots very human-like. They react to the meaning of the whole question. The AI-based Chat bot can learn from every interaction and expand their knowledge. An NLP based Chat bot is a computer program or artificial intelligence that communicates with a customer via textual or sound methods. Such programs are often designed to support clients on websites or via phone.

OVERVIEW & PROBLEM STATEMENT:

Traditionally, Field officers visit the farmlands and provide training, advice, and support to the farmers. Many of the rural villages lack the ease of accessibility which results in the wastage of time and money spent on obtaining information or contacting officials.

And nowadays many young generation people are come forward in Agricultural field. By this they are struggled to clarify their any basic doubts about farming. Lots of people are calling Kissan Call Centre (Owned by Government) to clarify their basic doubts. This cost the government so much. And some time farmers can't able to connect with Kissan centre.

PROPOSED METHOD:

We proposed to develop an application, which is used to clarify the query about **Weather, Market price, Plant protection, Government schemes, etc.** This system is available **24*7**, can be assessed through mobile or Web application platform helps the farmer to clarify many doubts as possible. This enables to reduce the cost and load of the Government and also easy accessible for the farmers

- All the Data Set is collected from Kissan call centre (Central Government).
- English is the primary language KCC is using in this Data set. Our application is also based on English language.
- Processing step:
    - Data Set collection.
    - Classifying the data set
    - Get Input from the user
    - Output will be provided based on the input and classified dataset.
- Algorithm or Model:
    - Sentence to Vector model
    - Word to Vector model
- Sample I/O:
    - Question (input) -What is the fertilizer for Grapes?
      Q (predicted)   - Fertilizer for grapes
      Answer   - Spray saa f 20gm/15 Litters of water for controlling blight.
    - Question (input) - What is the market rate of wheat?
      Q (predicted)   - Wheat market rate
      Answer   - Wheat market rate -1800---2200 rups pq
    - Question (input) – How to clear Caterpillar problem in Maize?
      Q (predicted)   - Caterpillar problem maize
      Answer   - Spray Chloropyriphos 30ml/15 ltr

SYSTEM REQUIREMENTS:
Tools: Android Studio, Anaconda Navigator.
Language: Python, Java.

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