# Project Report

**Project Name: Chatter bot for farmers**

---------------------------------------------------------------------------------------------------
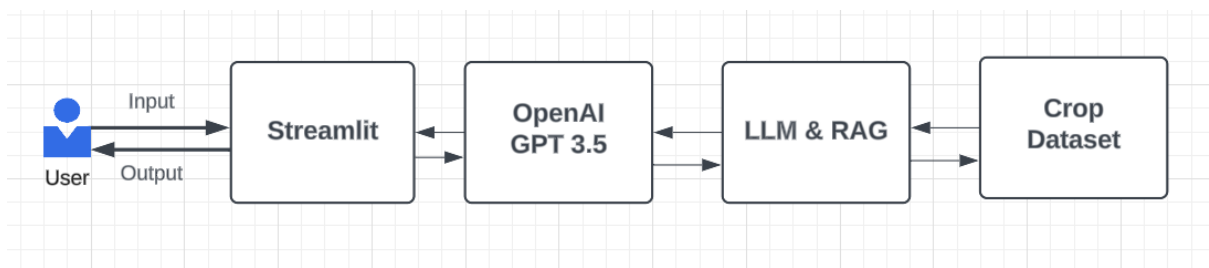
## Problem Statement:

The Project is "Chatter bot for farmers". It is a Chatbot which is specifically prompted for farmers to give answers and findings from crop data. Rather than having a common chatbot, chatbot is loaded with prompts of crop data, which gives personalised answers.

We cloned ChatGPT model and added RAG properties. Feeding agriculture data and answering based on it is the RAG property.

The main goal of this project is to provide technical access to farmers. Through this project, farmers will be able to find solutions that are not common but rather specific to their problems, which makes it easier for farmers to make decisions because of all the info that's provided.

## Block Diagram of the system:



## Technical Details:

- **Data Collection:** The dataset used for this project was obtained from Kaggle. The dataset is provided in a CSV format and the columns are **Question, Answer, Crop,**
- **Libraries:** LangChain, FAISS, OpenAI ChatGPT from LangChain, Streamlit.
- **Prompt Engineering**: Using prompt and storing the prompt template in a object prompt.
- **Main Methodology**: RAG (Retrieve, Arrange, Generate)

## Input & Output:

Input – Query could be either based on crop or a general question.

Output – If the question is based off crop, the answer is given based on dataset and followed by an else to give general answer.