Work Progress Report:

**AI Model Implementation and Data Collection Strategy**

## Completion of Seed Recommendation Model

The primary task involving the Seed Recommendation Model has been successfully accomplished.

## Initiation of Cultivation Plan Data Collection

We have commenced the data collection phase for the Cultivation Plan, and we have nearly completed the data collection process.

## Upcoming Steps: Data Processing, Cleaning, and Model Development

Presently, our focus lies on expediting the data processing, cleaning, and validation procedures. Once completed, our aim is to train the data for our Cultivation Plan model within a tight timeframe.

## AI Strategy: Collaborative Recommendation

We had proposed an alternative AI approach, specifically the Collaborative Recommendation method. This strategy will be implemented once all other pending tasks are finished, as it necessitates certain random data for training our model effectively. During Crowded Testing, we intend to finalize the training of this model.

## Unsupervised Data Collection and Research for Model Training

Our team is actively researching and exploring methodologies for unsupervised data collection and subsequent model training. Implementation of these findings is scheduled to commence within this week.

## API Selection for Weather Data

## Evaluation of Tomorrow.io and Alternative API - Open-Meteo

After evaluating Tomorrow.io, it was deemed unsuitable due to its high cost of $352 per month without alerts and additional charges for alerts. Consequently, we have explored an alternative option, Open-Meteo, which provides similar data services at a more affordable rate of €99 per month, inclusive of 5 million API calls and a range of weather-related functionalities.

## Development of In-House AI for Alerts Generation

As neither API provides the necessary alerts, our solution involves creating an in-house AI system that utilizes climate data as inputs to generate alerts, eliminating the need for an Alerts API.

## Continued Research for Optimal APIs

While Open-Meteo has been tentatively selected, ongoing research is being conducted to discover any other beneficial APIs. If a superior option emerges, we will consider adopting it even if it means moving away from Open-Meteo.  
  
 <https://open-meteo.com>

## Progress Update on Website Data Scraping for Seed Information

We successfully conducted data scraping from the websites you provided for seed-related information. This task presented considerable complexity as each website required unique code to extract the necessary data. Consequently, a significant amount of time was allocated to this phase of data collection.

At present, the data collection phase is nearing completion. Our next step involves organizing the gathered data and preparing it for utilization purposes.

The challenges associated with writing different codes for each website prolonged the data collection process. Nevertheless, we have made substantial progress and are now focused on streamlining and utilizing the collected data efficiently.

## Conclusion of the Project in Sight

The entire process is swiftly progressing towards completion. Our team is diligently working on a daily basis to ensure efficient advancement. Additionally, we have been actively engaging with Agriculture Experts in regular meetings. These collaborations have significantly enriched our knowledge base, particularly regarding seed-related insights, on a day-to-day basis.