# **Seeds Recommendation System**

# Supervised Way:

### Inputs:

1. **Temperature:** Recorded in Celsius.
2. **Water Level:** Categorized as High, Medium, High-Medium, Low, Very Low, etc.
3. **Soil Type:** Types of soil, e.g., Sandy, Loamy, Clay, etc.
4. **Moisturization:** Describing soil moisture levels, e.g., Moist, etc.
5. **Rain Fall Rate:** Rate of rainfall in a specific area.
6. **Sunshine Rate:** Rate of sunlight exposure.
7. **Hydrometry Rate:** (Add details if applicable)
8. **Humidity Rate:** (Add details if applicable)

### Outputs:

1. **Recommended Seeds:** Names of seeds suitable for the given input conditions.

# Unsupervised Way

## Data Collection:

Gathering Information:

* **User Location:** Captured from user input.
* **Current Climate Condition:** Retrieved via Weather API.
* **Feedback about Seeds:** Obtained through user-friendly pop-up questions allowing users to voluntarily provide feedback.

## Data Storage and Processing:

1. Collect data from multiple users.
2. Process and create datasets for seeds.
3. Implement Natural Language Processing (NLP) techniques for refining and enhancing dataset accuracy.
4. Store aggregated datasets and updated information. Model training occurs upon administrative approval.

# Collaborative Recommendation:

* Utilize user-provided and collected data to identify patterns and similarities among user preferences.
* Recommend seeds to users based on similarities between their preferences and those of similar users or climates.
* Employ similarity metrics such as cosine similarity, Pearson correlation coefficient, or other appropriate measures.

## Key Points:

* **Privacy Concerns:** Ensure user data privacy and consent for information collection.
* **Continuous Improvement:** Regularly update and train the model with new data for improved recommendations.
* **Administrative Control:** Model training and updates require administrative authorization.

# QUESTION:

1. **Do you agree with this approach?**
2. **Do you have any additions or suggestions for modifying this approach?**
   * Is there anything you would like to add or remove from this proposed approach?
3. **At what time would you prefer seed recommendations?**
   * Should seed recommendations be provided when the user visits the website, through push notifications, or at specific intervals?
4. **Are you planning for international deployment of this system?**
   * If this system will be used internationally, should we consider country location as a factor for seed recommendation? Different countries may require different seeds based on their climates.

As for additional questions:

1. **Do you have any preferences for the user interface or method of collecting user feedback about seeds?**
   * This could involve asking about the design of feedback forms or any specific interface elements they prefer for ease of providing feedback.
2. **Would you like to incorporate any social aspects or community features into the system for sharing gardening experiences or seed recommendations among users?**
   * Some users might appreciate features that allow them to share their experiences or tips with others.