Data Collection and Preprocessing Phase

Date	15 November 2024
Team ID	739824
Project Title	Fertilizer Recommendation System For Agriculture Using Ai
Maximum Marks	2 Marks

Data Collection Plan & Raw Data Sources Identification Template

Elevate your data strategy with the Data Collection plan and the Raw Data Sources report, ensuring meticulous data curation and integrity for informed decision-making in every analysis and decision-making endeavor.

Data Collection Plan Template

Section	Description
Project Overview	The AI-Based Fertilizer and Disease Prediction System optimizes farming by providing precise fertilizer recommendations and predicting crop diseases using image analysis. Farmers can upload images of crops, which are analyzed by advanced AI models like CNNs to detect diseases such as leaf rust, blight, or mildew. The system integrates real-time data from soil sensors, weather APIs, and crop conditions to deliver accurate insights. It minimizes resource wastage, improves crop health, and reduces losses caused by diseases. Its user-friendly applications and scalable design make it accessible to both small and large farms, promoting sustainable, data-driven precision agriculture.
Data Collection Plan	The data collection plan involves gathering soil data (pH, nutrients, moisture), crop data (type, growth stage, health), and disease data using high-resolution crop images analyzed by AI. Real-time weather data is sourced from APIs and IoT devices, while fertilizer details and geolocation data enhance precision. All data is securely stored in a cloud database for scalability and real-time processing.

Raw Data Sources Identified	The identified raw data sources include datasets available on platforms such as Kaggle and specialized academic repositories like ASL datasets, comprising gestures and their meanings for model training and testing. These sources will provide valuable data for building models to recognize gestures and classify them accurately, aiding in the development of efficient gesture recognition systems.

Raw Data Sources Template

Source Name	Description	Location/URL	Format	Size	Access Permissions
ASL Gesture Dataset	This dataset contains images of American Sign Language (ASL) gestures representing different letters of the alphabet. It is used for training machine learning models for gesture recognition.	https://drive.google.com/drive/folders/10i3I4nhlPf-XWntnkIcfYcmH8mggKX2t?usp=sharing	JPEG images	1.5 GB, 1000+ images	Public