

Data Collection and Preprocessing Phase

Date	21 June 2024
Team ID	739783
Project Title	Opti Crop: Smart Agricultural Production Optimization Engine
Maximum Marks	2 Marks

Data Collection Plan & Raw Data Sources Identification Report:

The data collection plan for the Opticrop project outlines strategies and methodologies for acquiring and managing data from various sources including agricultural sensors, satellite imagery, and weather stations. This plan ensures that data collection processes are efficient, reliable, and aligned with project objectives of optimizing agricultural production through smart technologies. The identified raw data sources for the Opticrop project provide a comprehensive foundation for data-driven decision-making in agricultural optimization. By integrating diverse data streams from sensors, satellite imagery, and weather stations, Opticrop aims to empower farmers with actionable insights to enhance crop productivity and sustainability.

Data Collection Plan:

Section	Description
Project Overview	Opticrop represents a significant advancement in agricultural technology, promising to empower farmers with actionable insights and tools to optimize production while promoting sustainability. By integrating cutting-edge data analytics with traditional farming practices, Opticrop aims to redefine agriculture for a more productive and environmentally responsible future.
Data Collection Plan	The data collection plan for Opticrop project is designed to facilitate the acquisition of high-quality data from agricultural sensors, satellite imagery, and weather stations. By implementing robust data collection methodologies and ensuring data integrity, Opticrop aims to provide farmers with actionable insights to optimize agricultural production and promote sustainable farming practices.
Raw Data Sources Identified	The identified raw data sources for the Opticrop project provide a comprehensive foundation for data-driven decision-making in agricultural optimization. By integrating diverse data streams from sensors, satellite imagery, and weather stations, Opticrop aims to empower farmers with actionable insights to enhance crop productivity and sustainability

Raw Data Sources Report:

Source Name	Description	Location/URL	Format	Size	Access Permissions
Kaggle Dataset	The dataset comprises the crop Condition details(nitrogen, Phosphorous, potassium, temperature, Ph,label)	https://www.kaggle.com/datasets/chitrakumari25/smartagricultural-production-optimizing-engine .	CSV	65kB	Public