FERTILIZER RECOMMENDATION FOR DISEASE PREDICTION

PROBLEM STATEMENT

Agriculture is significant to a nation's ability to innovate. All nations are built on agriculture, which provides food and raw materials. Thousands of individuals work in the agricultural sector, which is directly tied to agricultural products. However, in recent days the field was deteriorating as a result of different natural disasters. One of the main things that lower the yield of the food crops in terms of both quality and quantity is plant disease, especially on the leaves. Early detection of plant diseases is crucial as they impair the growth of their particular species.

Plant diseases can be detected using conventional means. Moreover, plant pathologists or agro experts have traditionally used empty eye inspection to find leaf disease. This method of diagnosing plant leaf disease typically entails a large group of specialists with extensive knowledge of plant diseases, and it can be subjective, expensive, and time-consuming.

By obtaining a digital image of the plant or crop, machine learning techniques are particularly effective at identifying and detecting plant illnesses. Digital images are processed using a variety of image-processing techniques to extract valuable information that are needed for the classification of diseases. The data set includes photos of diseased plants. These photos are trained and tested using Deep Learning Model Building, and the proper model is built and saved. This saved model is linked to the Prediction and Recommendation System web page. An automated technique is now used to detect various diseases by examining the symptoms that manifest on the plant's parts. Deep learning algorithms are used to diagnose diseases and recommend precautions for those diseases. Hence, this benefits the crop owners with better yield.