**Problem Statement:**

Banana cultivation faces significant challenges due to various leaf spot diseases that severely impact yield and quality. These diseases - Sigatoka, Cordana, and Pestalotiopsis - cause growth inhibition, reduced fruit production, and potential plant death, leading to financial losses for growers and disruptions in the global banana supply. The task is to develop an effective machine learning model to identify and classify these diseases from images of banana leaves, enabling timely and accurate diagnosis to reduce their impact.

**Aim of the Project:**

The aim of this project is to create a robust classification model for diagnosing banana leaf spot diseases using a diverse dataset of images. The dataset includes images of banana leaves affected by Sigatoka, Cordana, and Pestalotiopsis, as well as healthy leaves. The goal is to accurately classify the images into their respective disease categories, enhancing the ability to monitor and manage banana plant health and reduce the adverse effects of these diseases on banana production.

**Benefits of the Solution:**

1. Enhanced Disease Detection: An accurate classification model will facilitate the early detection and diagnosis of banana leaf spot diseases, allowing for timely intervention and treatment to protect plant health and yield.

2. Informed Decision-Making for Growers: By providing reliable disease classification, the model will help banana growers make informed decisions regarding disease management practices, potentially reducing crop losses and financial setbacks.