import numpy as np  
import streamlit as st  
import cv2  
from keras.models import load\_model  
import tensorflow as tf  
  
model = load\_model('New-plant-disease.h5')  
  
CLASS\_NAMES = ['Tomato\_Bacterial\_spot', 'Potato\_Early\_blight', 'Corn\_(maize)\_Common\_rust\_']  
  
st.title("Plant Disease Prediction Website")  
st.markdown("Upload an Image of the Leaf")  
  
plant\_image = st.file\_uploader("Choose an Image....", type="jpg")  
submit = st.button('Predict Disease')  
  
  
if submit:  
  
 if plant\_image is not None:  
  
 file\_bytes = np.asarray(bytearray(plant\_image.read()), dtype=np.uint8)  
 opencv\_image = cv2.imdecode(file\_bytes, 1)  
  
 st.image(opencv\_image, channels="BGR")  
 st.write(opencv\_image.shape)  
  
 # Resize and preprocess the Image  
 opencv\_image = cv2.resize(opencv\_image, (256, 256))  
 opencv\_image = opencv\_image / 255.0 # Normalize the image  
  
 # Add batch dimension  
 opencv\_image = np.expand\_dims(opencv\_image, axis=0)  
  
 # Prediction  
 Y\_pred = model.predict(opencv\_image)  
 result = CLASS\_NAMES[np.argmax(Y\_pred)]  
 st.title(f"This is a {result}")