**APPLICATION BUILDING**

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| DATE | 1 November 2022 |
| TEAM ID | PNT2022TMI50687 |
| PROECT NAME | Fertilizer Recommendation System For Disease Prediction |

**APPLICATION BUILDING**:

import requests

from tensorflow.keras.preprocessing import image

from tensorflow.keras.models import load\_model

import numpy as np

import pandas as pd

import tensorflow as tf

from flask import Flask, request, render\_template, redirect, url\_for

import os

from werkzeug.utils import secure\_filename

from tensorflow.python.keras.backend import set\_session

app = Flask(\_\_name\_\_)

global sess

global graph

graph=tf.compat.v1.get\_default\_graph()

model = load\_model("C:\\Users\\SMTEC\\Desktop\\Brahmani\_Project\_Build\_A\_Thon\\Brahmani\_Project\_Build\_A\_Thon\\fruit.h5")

model1=load\_model("C:\\Users\\SMTEC\\Desktop\\Brahmani\_Project\_Build\_A\_Thon\\Brahmani\_Project\_Build\_A\_Thon\\vegetable.h5")

@app.route('/')

def home():

    return render\_template('home.html')

@app.route('/prediction')

def prediction():

    return render\_template('predict.html')

@app.route('/predict',methods=['POST'])

def predict():

    if request.method == 'POST':

        f = request.files['image']

        basepath = os.path.dirname(\_\_file\_\_)

        file\_path = os.path.join(

            basepath, 'Dataset Plant Disease', secure\_filename(f.filename))

        f.save(file\_path)

        img = image.load\_img(file\_path, target\_size=(128, 128))

        x = image.img\_to\_array(img)

        x = np.expand\_dims(x, axis=0)

        plant=request.form['plant']

        print(plant)

        if(plant=="vegetable"):

            preds = model.predict(x)

            preds = np.argmax(preds)

            print(preds)

            df=pd.read\_excel('precautions - veg.xlsx')

            print(df.iloc[preds]['caution'])

        else:

            preds = model1.predict(x)

            preds = np.argmax(preds)

            df=pd.read\_excel('precautions - fruits.xlsx')

            print(df.iloc[preds]['caution'])

        return df.iloc[preds]['caution']

if \_\_name\_\_ == "\_\_main\_\_":

    app.run(debug=False)