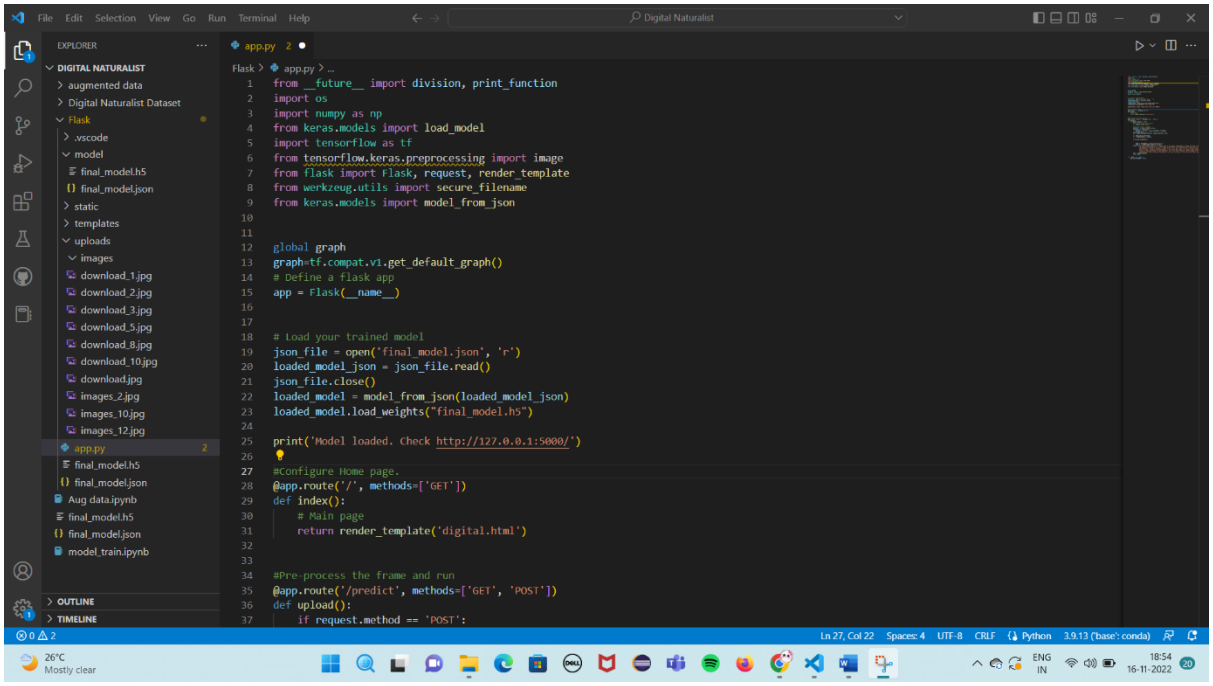
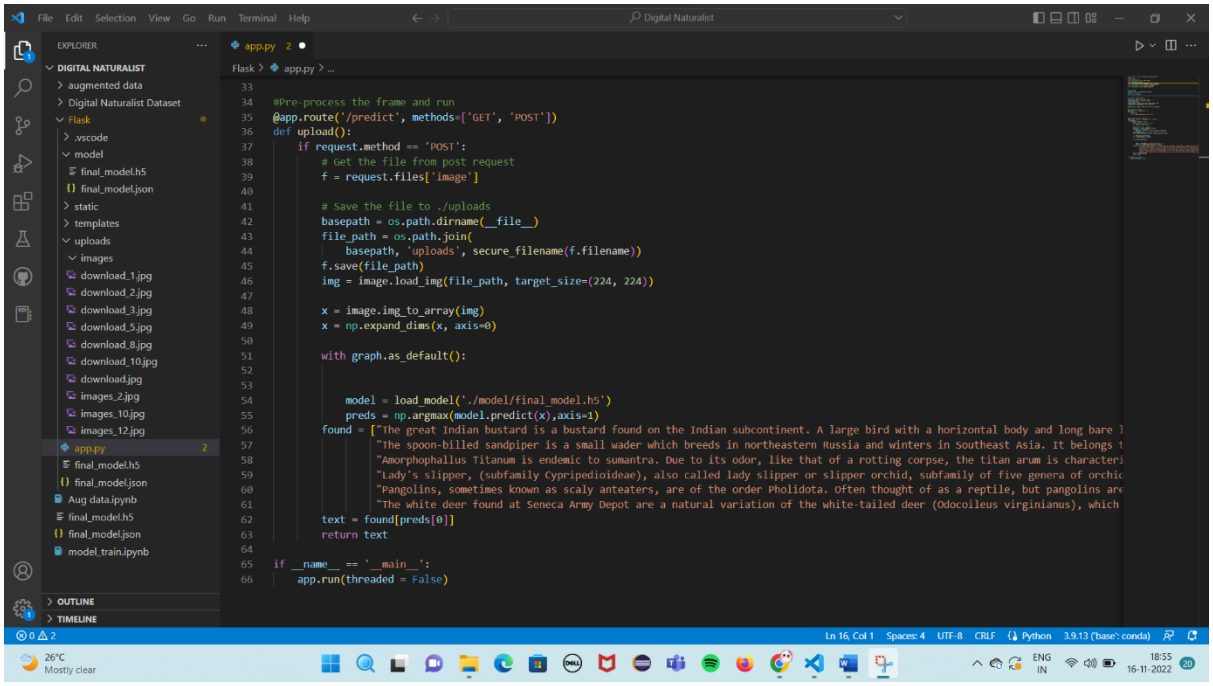
PROJECT NAME	Project - Digital Naturalist – AI Enabled tool for Biodiversity Researchers
TEAM ID	PNT2022TMID00699

BUILDING THE FLASK APPLICATION:



```
from __future__ import division, print_function
import os
import numpy as np
from keras.models import load_model
import tensorflow as tf
from tensorflow.keras.preprocessing import image
from flask import Flask, request, render_template
from werkzeug.utils import secure_filename
from keras.models import model_from_json


global graph
graph=tf.compat.v1.get_default_graph()
# Define a flask app
app = Flask(__name__)


# Load your trained model
json_file = open('final_model.json', 'r')
loaded_model_json = json_file.read()
json_file.close()
loaded_model = model_from_json(loaded_model_json)
loaded_model.load_weights("final_model.h5")

print('Model loaded. Check http://127.0.0.1:5000/')

#Configure Home page.
@app.route('/', methods=['GET'])
def index():
    # Main page
    return render_template('digital.html')


#Pre-process the frame and run
@app.route('/predict', methods=['GET', 'POST'])
def upload():
    if request.method == 'POST':
```



```
#Pre-process the frame and run
@app.route('/predict', methods=['GET', 'POST'])
def upload():
    if request.method == 'POST':
        # Get the file from post request
        f = request.files['image']

        # Save the file to ./uploads
        basepath = os.path.dirname(__file__)
        file_path = os.path.join(
            basepath, 'uploads', secure_filename(f.filename))
        f.save(file_path)
        img = image.load_img(file_path, target_size=(224, 224))

        x = image.img_to_array(img)
        x = np.expand_dims(x, axis=0)

        with graph.as_default():


            model = load_model('./model/final_model.h5')
            preds = np.argmax(model.predict(x),axis=1)
        found = ["The great Indian bustard is a bustard found on the Indian subcontinent. A large bird with a horizontal body and long bare l
                 "The spoon-billed sandpiper is a small wader which breeds in northeastern Russia and winters in Southeast Asia. It belongs t
                 "Amorphophallus Titanum is endemic to sumantra. Due to its odor, like that of a rotting corpse, the titan arum is characteri
                 "Lady's slipper, (subfamily Cypripedioideae), also called lady slipper or slipper orchid, subfamily of five genera of orchic
                 "Pangolins, sometimes known as scaly anteaters, are of the order Pholidota. Often thought of as a reptile, but pangolins are
                 "The white deer found at Seneca Army Depot are a natural variation of the white-tailed deer (Odocoileus virginianus), which
        text = found[preds[0]]
        return text

if __name__ == '__main__':
    app.run(threaded = False)
```