

TEAM ID: PNT2022TMID46445

# BUILD PYTHON CODE

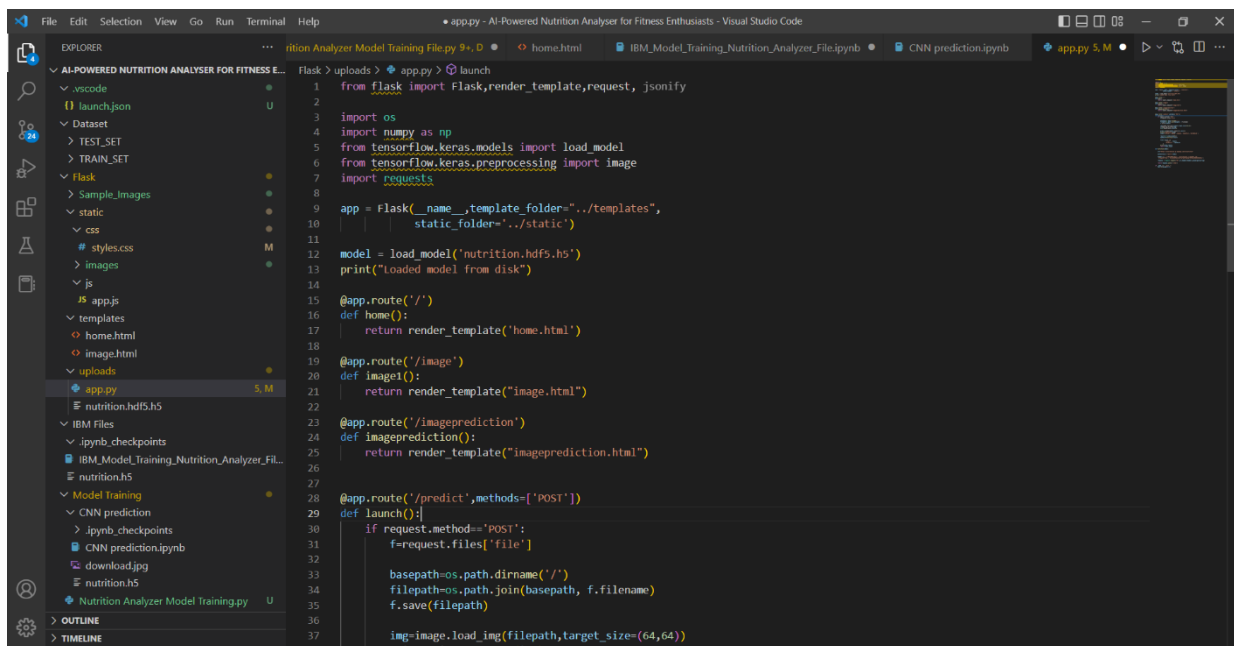
## Importing Libraries

The first step is usually importing the libraries that will be needed in the program.

```
from flask import Flask,render_template,request
# Flask-It is our framework which we are going to use to run/serve our application.
#request-for accessing file which was uploaded by the user on our application.
import os
import numpy as np #used for numerical analysis
from tensorflow.keras.models import load_model#to load our trained model
from tensorflow.keras.preprocessing import image
import requests
```

Importing the flask module into the project is mandatory. An object of the Flask class is our WSGI application. Flask constructor takes the name of the current module (`__name__`) as an argument Pickle library to load the model file.

## SCREENSHOTS:



```
File Edit Selection View Go Run Terminal Help
• app.py - AI-Powered Nutrition Analyzer for Fitness Enthusiasts - Visual Studio Code
riton Analyzer Model Training File.py 9+ D • home.html IBM_Model_Training_Nutrition_Analyzer_File.ipynb CNN prediction.ipynb app.py 5, M
EXPLORER
AI-POWERED NUTRITION ANALYSER FOR FITNESS E...
  .vscode
  launch.json
  Dataset
  TEST_SET
  TRAIN_SET
  Flask
  Sample_Images
  static
  css
  styles.css
  images
  js
  app.js
  templates
  home.html
  image.html
  uploads
  app.py 5, M
  nutrition.html5
  IBM Files
  jpynb_checkpoints
  IBM_Model_Training_Nutrition_Analyzer_FIL...
  nutrition.h5
  Model Training
  CNN prediction
  jpynb_checkpoints
  CNN prediction.ipynb
  download.jpg
  nutrition.h5
  Nutrition Analyzer Model Training.py U
  OUTLINE
  TIMELINE
Flask > uploads > app.py > launch
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
img=image.load_img(filepath,target_size=(64,64))
x=image.img_to_array(img)
x=np.expand_dims(x,axis=0)

pred=np.argmax(model.predict(x),axis=1)
print('prediction',pred)
index=['APPLES','BANANA','ORANGE','PINEAPPLE','WATERMELON']

result=str(index[pred[0]])
apiResult=nutrition(result)

final_result = {
    "result": result,
    "apiResult": apiResult
}
print(final_result)
return final_result

def nutrition(index):

    url="https://calorieninjas.p.rapidapi.com/v1/nutrition"

    querystring = {"query":index}

    headers = {
        'X-RapidAPI-Host': 'calorieninjas.p.rapidapi.com',
        'X-RapidAPI-Key': '8c43e02998mshcb4fea7ab8fdea2p175878jsn0d0669a8826c'
    }

    response = requests.request("GET",url,headers=headers,params=querystring)

    return response.json()['items']

if __name__ == "__main__":
    app.run(debug=False)
```