

## Build python Code

Date	1November 2022
Team ID	PNT2022TMID52143
Project Name	AI-powered Nutrition Analyzer for Fitness Enthusiasts

### app.py

```
import
requests

from flask import Flask, render_template, request, url_for, redirect
from werkzeug.utils import secure_filename
from werkzeug.exceptions import HTTPException
import os
import json

UPLOAD_FOLDER = 'static/uploads/'
app = Flask(__name__, static_url_path='/')
app.config['UPLOAD_FOLDER'] = UPLOAD_FOLDER
my_secret = os.environ['apikey']

def demo_cal(num):
    if int(num) == 1:
        data_load = "testdata2burger.json"
    else:
        data_load = "testdata.json"
    with open(data_load, "r") as f:
        data = json.load(f)
    return data

def get_cal(fname):
    try:
        img = f"static/uploads/{fname}"
        api_user_token = my_secret
```

```
headers = {'Authorization': 'Bearer ' + api_user_token}
```

```
# Single/Several Dishes Detection
```

```

url = 'https://api.logmeal.es/v2/recognition/complete'

resp = requests.post(url,files={'image': open(img, 'rb')},headers=headers)
print(resp.json())
#print("response21:\n")

# Nutritional information

url = 'https://api.logmeal.es/v2/recipe/nutritionalInfo'
resp = requests.post(url,json={'imageId': resp.json()['imageId']}, headers=headers)
print(resp.json()) # display nutritional info

return resp.json()

except:
    return "Error"

@app.route('/')
def index():
    return render_template("index.html")

@app.route("/api")
def testdata():
    data = demo_cal(1)
    return data

@app.route("/demo/<num>")
def demo(num):
    data = demo_cal(num)
    fname = "damplefood.jpg"
    if int(num)==1:
        fname = "istockphoto-1125149183-612x612.jpg"
    else:
        fname = "depositphotos_50523105-stock-photo-pizza-with-tomatoes.jpg"
    #print(num)
    return render_template("demo.html",fname=fname, data=data)

@app.route('/result', methods = ['GET', 'POST'])
def upload_file():
    if request.method == 'POST':
        f =
request.files['file']

        fname = secure_filename(f.filename)

```

```

        f.save(os.path.join(app.config['UPLOAD_FOLDER'], fname))
    data = get_cal(fname)
    if data=="Error":
        return "Service has been exhausted please try after 24hrs!"
    an_object = data["foodName"]
    check_list = isinstance(an_object, list)
    if check_list==True:
        data["foodName"] = data["foodName"][0]
        return render_template("result.html",fname=fname, data=data)
        #return redirect(url_for('static', filename='uploads/' + fname), code=301)

@app.errorhandler(HTTPException)
def handle_exception(e):
    """Return JSON instead of HTML for HTTP errors."""
    # start with the correct headers and status code from the error
    response = e.get_response()
    # replace the body with JSON
    response.data = json.dumps({
        "code": e.code,
        "name": e.name,
        "description": e.description,
    })
    response.content_type = "application/json"
    return response

if __name__=="__main__":
    app.run(host="0.0.0.0", port=8000, debug=True)

```

## main.yml

name: Build and deploy Python app to Azure Web App - foood

on:

push:

branches:

- main

workflow\_dispatch:

jobs:

build:

```

runs-on: ubuntu-latest

steps:
- uses: actions/checkout@v2

- name: Set up Python version
  uses: actions/setup-python@v1
  with:
    python-version: '3.8'

- name: Create and start virtual environment
  run: |
    python -m venv venv
    source venv/bin/activate

- name: Install dependencies
  run: pip install -r requirements.txt

  # Optional: Add step to run tests here (PyTest, Django test suites, etc.)

- name: Upload artifact for deployment jobs
  uses: actions/upload-artifact@v2
  with:
    name: python-app
    path: |
      .
      !venv/

deploy:
  runs-on: ubuntu-latest
  needs: build
  environment:
    name: 'Production'
    url: ${ steps.deploy-to-webapp.outputs.webapp-url }

  steps:
- name: Download artifact from build job
  uses: actions/download-artifact@v2
  with:
    name: python-app

```

```
    path:
  .
- name: 'Deploy to Azure Web App'
  uses: azure/webapps-deploy@v2
  id: deploy-to-webapp
  with:
    app-name: 'foood'
    slot-name: 'Production'
    publish-profile: ${secrets.AZUREAPPSERVICE_PUBLISHPROFILE_F6FCF510CE004208B6D1C454B08695A7 }}
```

## Test

```
{
  "foodName": "pizza",
  "hasNutritionalInfo": true,
  "ids": 168,
  "imageId": 1330495,
  "nutritional_info": {
    "calories": 701.9,
    "dailyIntakeReference": {
      "CHOCDF": {
        "label": "Carbs",
        "level": "HIGH",
```

```

    "percent":44.990981165671165
  },
  "ENERC_KCAL":{
    "label":"Energy",
    "level":"NONE",
    "percent":34.10113830889581
  },
  "FASAT":{
    "label":"Saturated",
    "level":"HIGH",
    "percent":31.164453872938235
  },
  "FAT":{
    "label":"Fat",
    "level":"HIGH",
    "percent":38.023813771298215
  },
  "NA":{
    "label":"Sodium",
    "level":"HIGH",
    "percent":89.64
  },
  "PROCNT":{
    "label":"Protein",
    "level":"NONE",
    "percent":14.445654828102326
  },
  "SUGAR":{
    "label":"Sugars",
    "level":"MEDIUM",
    "percent":15.968000000000002
  }
},
"totalNutrients":{
  "CA":{
    "label":"Calcium",
    "quantity":181.65,
    "unit":"mg"
  },
  "CHOCDF":{
    "label":"Carbs",
    "quantity":104.18,
    "unit":"g"
  },
  "CHOLE":{
    "label":"Cholesterol",
    "quantity":22.4,
    "unit":"mg"
  }
}

```

```

},
"ENERC_KCAL":{
  "label": "Energy",
  "quantity": 701.9,
  "unit": "kcal"
},
"FAMS":{
  "label": "Monounsaturated fats",
  "quantity": 12.05,
  "unit": "g"
},
},
"FAPU":{
  "label": "Polyunsaturated",
  "quantity": 2.3,
  "unit": "g"
},
},
"FASAT":{
  "label": "Saturated",
  "quantity": 5.88,
  "unit": "g"
},
},
"FAT":{
  "label": "Fat",
  "quantity": 21.74,
  "unit": "g"
},
},
"FATRN":{
  "label": "Trans fat",
  "quantity": 0.0,
  "unit": "g"
},
},
"FE":{
  "label": "Iron",
  "quantity": 7.28,
  "unit": "mg"
},
},
"FIBTG":{
  "label": "Fiber",
  "quantity": 6.3,
  "unit": "g"
},
},
"FOLAC":{
  "label": "Folic acid",
  "quantity": 192.5,
  "unit": "µg"
},
},
"FOLDFE":{
  "label": "Folate equivalent (total)",

```



```

    "quantity":470.7,
    "unit":"µg"
  },
  "FOLFD":{
    "label":"Folate (food)",
    "quantity":143.2,
    "unit":"µg"
  },
  "K":{
    "label":"Potassium",      "quantity":559.05,
    "unit":"mg"
  },
  "MG":{
    "label":"Magnesium",
    "quantity":54.04,
    "unit":"mg"
  },
  "NA":{
    "label":"Sodium",
    "quantity":1344.6,
    "unit":"mg"
  },
  "NIA":{
    "label":"Niacin (B3)",
    "quantity":10.24,
    "unit":"mg"
  },
  "P":{
    "label":"Phosphorus",
    "quantity":294.19,
    "unit":"mg"
  },
  "PROCNT":{
    "label":"Protein",
    "quantity":22.3,
    "unit":"g"
  },
  "RIBF":{
    "label":"Riboflavin (B2)",
    "quantity":0.94,
    "unit":"mg"
  },
  "SUGAR":{
    "label":"Sugars",
    "quantity":4.99,
    "unit":"g"
  },
  "SUGAR.added":{

```

```

      "label": "Sugars, added",
      "quantity": 0.0,
      "unit": "g"
    },
    "THIA": {
      "label": "Thiamin (B1)",
      "quantity": 1.46,
      "unit": "mg"
    },
    "TOCPHA": {
      "label": "Vitamin E",
      "quantity": 3.83,
      "unit": "mg"
    },
    "VITA_RAE": {
      "label": "Vitamin A",
      "quantity": 79.02,
      "unit": "µg"
    },
    "VITB12": {
      "label": "Vitamin B12",
      "quantity": 0.65,
      "unit": "µg"
    },
    "VITB6A": {
      "label": "Vitamin B6",
      "quantity": 0.25,
      "unit": "mg"
    },
    "VITC": {
      "label": "Vitamin C",
      "quantity": 8.68,
      "unit": "mg"
    },
    "VITD": {
      "label": "Vitamin D",
      "quantity": 4.65,
      "unit": "µg"
    },
    "VITK1": {
      "label": "Vitamin K",
      "quantity": 14.67,
      "unit": "µg"
    },
    "ZN": {
      "label": "Zinc",
      "quantity": 2.3,
      "unit": "mg"
    }
  }

```

```
    }  
  }  
},  
"serving_size":295.35  
}
```