python program

TEAM ID	PNT2022TMID38280
PROJECT NAME	AI-powered Nutrition Analyzer for Fitness Enthusiasts

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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
}
```