python program

Date	17-11-2022
Team ID	PNT2022TMID16818
Project name	AI powered Nutrient analyser for fitness enthusiastics

app.py

```python
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())
```

```python
        #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)
```

```python
            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

```yaml
on:
  push:
    branches:
      - main
  workflow_dispatch:

jobs:
  build:
    runs-on: ubuntu-latest

    steps:
      - uses: actions/checkout@v2

      - name: Set up Python version
```

```yaml
    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
```

```yaml
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",
```

```json
      "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"
    },
```

```json
    "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
}
```