python program

Date	12.11.2022
Team ID	PNT2022TMID23697
Project name	AI-powered Nutrition Analyzer for Fitness Enthusiasts

app.py

```
import
requests
                fromflaskimportFlask,render_template,request,url_for,redirectfromwer
                kzeug.utilsimportsecure_filename
                from werkzeug.exceptions import
                HTTPExceptionimportos
                importjson

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

                def
                    demo_cal(num):i
                    fint(num)==1:
                        data_load =
                    "testdata2burger.json"else:
                        data_load=
                    "testdata.json"withopen(data_lo
                    ad,"r")asf:
                        data=json.load(f)re
                    turndata

                def
                    get_cal(fname):
                    try:
                        img =
                        f"static/uploads/{fname}"api_us
                        er_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)prin
t(resp.json())
```

```
        #print("response21:\n")
        # Nutritional information
        url='https://api.logmeal.es/v2/recipe/nutritionalInfo'
        resp=requests.post(url,json={'imageId':resp.json()['imageId']},hea
ders=headers)
        print(resp.json())#displaynutritionalinfo
        return
    resp.json()except:
        return"Error"

@app.route('/')
defindex():
    returnrender_template("index.html")

@app.route("/api")
deftestdata():
    data=demo_cal(1)re
    turndata

@app.route("/demo/<num>")
defdemo(num):
    data =
    demo_cal(num)fname =
    "damplefood.jpg"ifint(nu
    m)==1:
        fname = "istockphoto-1125149183-
    612x612.jpg"else:
        fname = "depositphotos_50523105-stock-photo-pizza-with-
    tomatoes.jpg"#print(num)
    returnrender_template("demo.html",fname=fname,data=data)

@app.route('/result', methods = ['GET',
'POST'])defupload_file():
   if request.method ==
      'POST':f=request.files['f
      ile']
      fname =
      secure_filename(f.filename)f.save(os.path.join(app.confi
      g['UPLOAD_FOLDER'],fname))data=get_cal(fname)
      ifdata=="Error":
          return "Service has been exhausted please try after
      24hrs!"an_object=data["foodName"]
      check_list=isinstance(an_object,list)
```

```
        ifcheck_list==True:
            data["foodName"]=data["foodName"][0]
        returnrender_template("result.html",fname=fname,data=data)
        #return redirect(url_for('static', filename='uploads/' + fname), code=301)

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

Main.yml

```
ifname=="main":
    app.run(host="0.0.0.0",port=8000,debug=True
    )name:BuildanddeployPythonapptoAzureWebApp-foood

on:
  push:
    branches:
      -
  mainworkflow_dispatch:

jobs:
  build:
    runs-on:ubuntu-latest

    steps:
      - uses:actions/checkout@v2

      - name:SetupPythonversionuses:actions/setup-python@v1with:
        python-version:'3.8'

      - name:Createandstartvirtualenvironmentrun:|
```

```
        python -m venv
        venvsourcevenv/bin/activate

    - name:Installdependencies
      run:pipinstall-rrequirements.txt

    #Optional:Addsteptoruntestshere(PyTest,Djangotestsuites,etc.)

    - name:Uploadartifactfordeploymentjobsuses:ac
      tions/upload-artifact@v2
      with:
        name:python-
        apppath:|
          .
          !venv/

  deploy:
    runs-on: ubuntu-
    latestneeds:
    buildenvironment:
      name:'Production'
      url:${{steps.deploy-to-webapp.outputs.webapp-url}}

    steps:
      - name:Downloadartifactfrombuildjobuses:
        actions/download-artifact@v2with:
        name:python-
          apppath:.

      - name:'DeploytoAzureWebApp'uses:
        azure/webapps-deploy@v2id: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,"nutritiona
l_info":{
  "calories":701.9,"dailyIntak
  eReference":{
    "CHOCDF":{
      "label":"Carbs",
      "level":"HIGH",
      "percent":44.990981165671165
    },
    "ENERC_KCAL":{
      "label":"Energy",
      "level":"NONE",
      "percent":34.10113830889581
    },
    "FASAT":{
      "label":"Saturated","leve
      l":"HIGH"percent":31.1
      64453872938235
    },
    "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","qu
          antity":22.4,
          "unit":"mg"
        },
        "ENERC_KCAL":{"label":"Energy","quantity":701.9,"unit":"kcal"},
        "FAMS":{
          "label":"Monounsaturatedfats","quantity":1
          2.05,
          "unit":"g"
},
        "FAPU":{
          "label":"Polyunsaturated","quantity":2.3,
          "unit":"g"
        },
        "FASAT":{
          "label":"Saturated","qua
          ntity":5.88,
          "unit":"g"
        },
        "FAT":{
          "label":"Fat",
          "quantity":21.74,"unit":"
          g"
        },
        "FATRN":{
          "label":"Transfat",
          "quantity":0.0,
          "unit":"g"
        },
        "FE":{
          "label":"Iron",
          "quantity":7.28,
          "unit":"mg"
        },
        "FIBTG":{
          "label":"Fiber",
          "quantity":6.3,
          "unit":"g"
        },
        "FOLAC":{
          "label":"Folicacid","quan
          tity":192.5,
          "unit":"µg"
        },
        "FOLDFE":{
          "label":"Folateequivalent(total)","quantity"
          :470.7,
          "unit":"µg"
        },
        "FOLFD":{
          "label":"Folate(food)","q
          uantity":143.2,
          "unit":"µg"
```

```
        },
        "K":{
          "label":"Potassium",
          "quantity":559.05,"unit":
          "mg"
        },
        "MG":{
          "label":"Magnesium","qu
          antity":54.04,
          "unit":"mg"
        },
        "NA":{
          "label":"Sodium","quant
          ity":1344.6,"unit":"mg"
        },
        "NIA":{
          "label":"Niacin(B3)","qu
          antity":10.24,
          "unit":"mg"
        },
        "P":{
          "label":"Phosphorus","qu
          antity":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)","q
          uantity":1.46,
          "unit":"mg"
        },
"TOCPHA":{
          "label":"VitaminE",
          "quantity":3.83,
```

```
        "unit":"mg"
      },
      "VITA_RAE":{
        "label":"VitaminA","qua
        ntity":79.02,
        "unit":"µg"
      },
      "VITB12":{
        "label":"VitaminB12","q
        uantity":0.65,
        "unit":"µg"
      },
      "VITB6A":{
        "label":"VitaminB6","qu
        antity":0.25,
        "unit":"mg"
      },
      "VITC":{
        "label":"VitaminC",
        "quantity":8.68,
        "unit":"mg"
      },
      "VITD":{
        "label":"VitaminD",
        "quantity":4.65,
        "unit":"µg"
      },
      "VITK1":{
        "label":"VitaminK","qua
        ntity":14.67,
        "unit":"µg"
      },
      "ZN":{
        "label":"Zinc",
        "quantity":2.3,
        "unit":"mg"
      }
    }
  },
  "serving_size":295.35
}
```