Build python **Code**

Date	1 November 2022
Team ID	PNT2022TMID36519
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 importsecure_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 - food

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":34.1011383088958
    1 },
    "FASAT":{
      "label":"Saturated",
      "level":"HIGH",
      "percent":31.16445387293823
    5 },
    "FAT":{
      "label":"Fat",
      "level":"HIGH",
      "percent":38.02381377129821
    5 },
    "NA":{
      "label":"Sodium",
      "level":"HIGH",
      "percent":89.64
    },
    "PROCNT":{
      "label":"Protein",
      "level":"NONE",
      "percent":14.44565482810232
    6 },
    "SUGAR":{
      "label":"Sugars",
      "level":"MEDIUM",
      "percent":15.96800000000000
    2 }
  },
  "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":295.3
```

```
5 }
```