Day - 38

**Project: Workout Tracking Using Google Sheets**

More practice with APIs and Intro to NLP

**38.1 Data Types**

* Objectives:
* Use Nutritionix API to get ***natural language*** input to turn it into json format information including consisting *exercise*, *calrories* etc.
* Use Sheety API to track down the information on google sheet.
* Steps:

1. OpenAi GPT-3
2. Setup API Credentials and Google Spreadsheet
3. NutritionixAPI
4. Setup Google Sheet with Sheety: SheetyAPI
5. Saving Data into Google Sheets
6. Authenticate Your Sheety API
7. Environment Variables

**38.2 API: Nutritionix**

Used to track calories for exercising. Geting user's input in natural language and returning type of Excercise, Duration, Calories.

<https://docs.google.com/document/d/1_q-K-ObMTZvO0qUEAxROrN3bwMujwAN25sLHwJzliK0/edit#>

* .env Files: ***.env*** files are used for declaring ***environment*** ***variables***. On Replit, ***.env*** files are only visible to the owner of the ***repl***. Other users and guests viewing a public ***repl*** will not be able to see the contents of the ***.env*** file, nor will they be able to access it by ***downloading*** the ***repl*** or ***forking*** it. The only exception to this is Multiplayer – other users in your Multiplayer session can view your ***.env*** file.
* Article about Natural Language Process: ***Open AI***: <https://openai.com/blog/openai-api/>

OpenAI’s API provides access to GPT-3, which performs a wide variety of natural language tasks, and Codex, which translates natural language to code.

**38.3 API: Sheety**

Sheety turns your spreadsheet into something called a Restful JSON API. It means you can access your spreadsheets data in a standard way using simple URLs and HTTP requests.

<https://sheety.co/docs/requests>

* -Parameters have to be lower case.
* -if having upper case + space in the parameter:
* First Name(sheet) -> firstName(code)
* -API transforms your headers into the "lowercase no-space" format and you can access them as such. So trying to access a column with a header "My Header" would work by querying the column "myheader".

**38.4 Project**

No Practice: Only API ideas.

**import** requests

**from** datetime **import** datetime

**import** os

GENDER = YOUR GENDER

WEIGHT\_KG = YOUR WEIGHT

HEIGHT\_CM = YOUR HEIGHT

AGE = YOUR AGE

APP\_ID = os**.**environ["YOUR\_APP\_ID"]

API\_KEY = os**.**environ["YOUR\_API\_KEY"]

exercise\_endpoint = "https://trackapi.nutritionix.com/v2/natural/exercise"

sheet\_endpoint = os**.**environ["YOUR\_SHEET\_ENDPOINT"]

exercise\_text = **input**("Tell me which exercises you did: ")

headers = {

    "x-app-id": APP\_ID,

    "x-app-key": API\_KEY,

}

parameters = {

    "query": exercise\_text,

    "gender": GENDER,

    "weight\_kg": WEIGHT\_KG,

    "height\_cm": HEIGHT\_CM,

    "age": AGE

}

response = requests**.post**(exercise\_endpoint, json=parameters, headers=headers)

result = response**.json**()

**print**(result)

today\_date = datetime**.now**()**.strftime**("%d/%m/%Y")

now\_time = datetime**.now**()**.strftime**("%X")

**for** exercise **in** result["exercises"]:

    sheet\_inputs = {

        "workout": {

            "date": today\_date,

            "time": now\_time,

            "exercise": exercise["name"]**.title**(),

            "duration": exercise["duration\_min"],

            "calories": exercise["nf\_calories"]

        }

    }

    #*No Auth*

    sheet\_response = requests**.post**(sheet\_endpoint, json=sheet\_inputs)

    #*Basic Auth*

    sheet\_response = requests**.post**(

        sheet\_endpoint,

        json=sheet\_inputs,

        auth=(

            os**.**environ["USERNAME"],

            os**.**environ["PASSWORD"],

        )

    )

    #*Bearer Token*

    bearer\_headers = {

    "Authorization": f"Bearer {os**.**environ['TOKEN']}"

    }

    sheet\_response = requests**.post**(

        sheet\_endpoint,

        json=sheet\_inputs,

        headers=bearer\_headers

    )

**print**(sheet\_response**.**text)