



STUDENTS' UNION
TECHNICAL TEAM

Back-End Developer Recruitments

TASK 1

DEADLINE

07 Nov 2023, EOD

TASK 1 (Excel Parsing and JSON Object Generation in Python)

You are tasked with creating a Python program to parse a provided Excel spreadsheet containing the mess menu and convert its contents into Python objects. The resulting Python objects must then be serialized into a JSON file.

The deadline for this task will be 07 November,EOD.

Task Instructions:

1. **Excel sheet parsing** : You are provided with an Excel spreadsheet that contains the mess menu with different days in different columns. You have to read and parse that data using pandas (a python library used extensively for data manipulation). Ensure that you handle any potential issues, such as missing data or data format inconsistencies. Note: Make sure you exclude the " ***** " in some rows

[Mess Menu](#)

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2.JSON Serialization : After successfully creating Python objects representing the menu items, you should serialize these objects into a JSON file. The format of this json should be as follows:

```
"Date" : {  
    "Breakfast" : [ ...Breakfast Items... ],  
    "Lunch" : [ ...Lunch Items... ],  
    "Dinner" : [ ...Dinner Items...]  
},
```

Sample Output :

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Sample Output :

```
"2023-09-01": {
  "BREAKFAST": [
    "CHOICE OF EGG",
    "CORNFLAKES",
    "BREAD +JAM",
    "MISSAL",
    "PAV",
    "LEMON + ONION",
    "BANANA",
    "TEA+ COFFEE",
    "Milk"
  ],
  "LUNCH": [
    "GREEN SALAD",
    "LAUKI CHANNA ",
    "HARYALI KOFTA CURRY",
    "DAL TADKA",
    "CHAPATI",
    "PLAIN RICE",
    "CHOCO CHIP I/C ",
    "SHIKANJI"
  ],
  "DINNER": [
    "CORN SALAD",
    "DAL MAKHANI ",
    "MIX VEG ",
    "EGG FRIED RICE / VEG FRIED RICE",
    "CHAPATI",
    "RASAM"
  ]
},
```

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Completion Requirements :

- A Python script that accomplishes the tasks described above.
- A JSON file containing the menu items in the specified format.
- Documentation or comments in your code to explain the logic and usage of the script.

Your work will be evaluated based on the correctness of parsing, object creation, and JSON serialization, as well as the clarity and efficiency of your code.

Perform adequate testing to validate the correctness of the parsing, object creation, and JSON serialization process.

Learning Resources :

[Git - Getting Started](#)

[Git & Github Video Tutorials](#)

[Pandas - Getting Started](#)

[Excel Parsing in Pandas](#)

[About JSONs](#)

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Happy coding !