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Course: Foundation of Programming Python

Assignment 5: Advance Collection and Error Handling

Topic covered in Module 5:

- This module started with concept of data dictionaries. Dictionaries are mutable data structure that allow us to store key-value pairs
- We learned loading data through JSON file. JSON i.e. JavaScript Object Notation is a standardized format used to transfer data as text.
- Error detected during program execution are called Exceptions and we can handle using try and except command.

Assignment

Started the assignment by using starter file and assigned variable for dictionary. Implemented the logic for Error Handling using

Learning

Figure 1 error occurred due to case sensitive in variable name. Fixed this issue by fixing variable name.



```
What would you like to do: 1
Enter the student's first name: KAMAL
name 'Student_first_name' is not defined
Traceback (most recent call last):
  File "C:\Python\Asisgnment 5\Assignment05.py", line 63, in <module>
    if not Student_first_name.isalpha():
           ^^^^^^^^^^^^^^^^^^
NameError: name 'Student_first_name' is not defined. Did you mean: 'student_first_name'?

During handling of the above exception, another exception occurred:

Traceback (most recent call last):
  File "C:\Python\Asisgnment 5\Assignment05.py", line 81, in <module>
    print(e._doc_)
          ^^^^^^^
AttributeError: 'NameError' object has no attribute '_doc_'. Did you mean: '__doc__'?
Please try again.

Process finished with exit code 1
```

Figure 1: Student name Error

Figure 2:  Error occurred while saving the file via option 3

Fixed this issue by adding the libraries:

from typing import IO

import json

```
What would you like to do: 3
name 'json' is not defined
The file has been closed.
```

Figure 3: Error occurred via menu option 2 while reading the file. There was typing mistake in Enrollment.json file. Replaced Email with LastName to solve this error.

```
Traceback (most recent call last):
  File "C:\Python\Asisgnment 5\Assignment05.py", line 95, in <module>
    f'{student["LastName"]} is enrolled in {student["CourseName"]}')
     ~~~~~~~^^^^^^^^^^^^^^
KeyError: 'LastName'
Student BobSmith is enrolled in Python 100
------------------------------------------------

Process finished with exit code 1
```

```
File    Edit    View

[
{"FirstName": "Bob", "LastName": "Smith", "CourseName":  "Python 100"},
{"FirstName": "Sue", "Email": "Jones", "CourseName":  "Python 100"}
]
```

## Output

Output 1: Using menu option 1 Successfully entered Student Details

```
What would you like to do: 1
Enter the student's first name: kamal
Enter the student's last name: Jeet
Enter the course's name: Python
You have registered kamal Jeet for Python.
```

Output 2: Using menu Option 2 for Show the current data

```
What would you like to do: 2

------------------------------------------------

Student BobSmith is enrolled in Python 100

------------------------------------------------

Student SueJones is enrolled in Python 100

------------------------------------------------

Student kamalJeet is enrolled in Python

------------------------------------------------
```

Option 3: Using Menu 3 Option to Save the data in file:

```
------------------------------------------------
What would you like to do: 3
The file has been saved.
------------------------------------------------
[{"FirstName": "Bob", "LastName": "Smith", "CourseName": "Python 100"}, {"FirstName": "Sue", "LastName": "Jones", "CourseName": "Python 100"}, {"FirstName": "kamal", "LastName": "Jeet", "CourseName": "Python"}]

---- Course Registration Program ----
Select from the following menu:
```

```
[{"FirstName": "Bob", "LastName": "Smith", "CourseName": "Python 100"}, {"FirstName": "Sue", "LastName": "Jones", "CourseName": "Python 100"}, {"FirstName": "kamal",
"LastName": "Jeet", "CourseName": "Python"}]
```

## Summary

Error handling helps improving the code as it prompts users to enter correct data.

```
------------------------------------------------

What would you like to do: 1
Enter the student's first name: 123
Student First Name must be alphabets.
Please try again.
```