

ASSIGNMENT 4:

Module 5: Files, Exceptions, and Errors in Python

Task 1: Read a File and Handle Errors

Problem Statement: Write a Python program that:

1. Opens and reads a text file named sample.txt.
2. Prints its content line by line.
3. Handles errors gracefully if the file does not exist.

Code:

```
➊ TuteDude Assignment 4.py > ...
1  # Task 1
2  try:
3  |   with open('sample.txt', 'r') as file:
4  |       for line in file:
5  |           print(line, end='')
6  except FileNotFoundError:
7  |   print("Error: The file 'sample.txt' was not found.")
8  except IOError:
9  |   print("Error: An error occurred while reading the file.")
10 |
```

Output:

```
PS C:\Users\VG\Desktop\TuteDude Python> & C:/Users/VG/AppData/Local/Programs/Python/Python313/python.exe "c:/Users/VG/Desktop/TuteDude Python/TuteDude Assignment 4.py"
Error: The file 'sample.txt' was not found.
PS C:\Users\VG\Desktop\TuteDude Python> []
```

Task 2: Write and Append Data to a File

Problem Statement: Write a Python program that:

1. Takes user input and writes it to a file named **output.txt**.
2. Appends additional data to the same file.
3. Reads and displays the final content of the file.

Code:

```
11  # Task 2
12  try:
13      user_input = input("Enter data to write to output.txt: ")
14      with open('output.txt', 'w') as file:
15          file.write(user_input + '\n')
16          print("Data written successfully.")
17
18      append_input = input("Enter data to append to output.txt: ")
19      with open('output.txt', 'a') as file:
20          file.write(append_input + '\n')
21          print("Data appended successfully.")
22
23      with open('output.txt', 'r') as file:
24          print("\nFinal content of output.txt:")
25          print(file.read())
26
27 except IOError:
28     print("Error: An error occurred while handling the file.")
```

Output:

```
PS C:\Users\VG\Desktop\TuteDude Python> & C:/Users/VG/AppData/Local/Programs/Python/Python313/python.exe "c:/Users/VG/Desktop/TuteDude Python/TuteDude Assignment 4.py"
Enter data to write to output.txt: My Name is Ved Satishkumar Patel.
Data written successfully.
Enter data to append to output.txt: I'm doing Python course from TuteDude.
Data appended successfully.

Final content of output.txt:
My Name is Ved Satishkumar Patel.
I'm doing Python course from TuteDude.

PS C:\Users\VG\Desktop\TuteDude Python>
```