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"""
Python File Handling & Automation Script
Author: Your Name
Description:
This script demonstrates:
1. Reading and writing text files
2. Reading and writing CSV files
3. Automating file operations (rename, move, delete)
4. Using try-except for error handling
"""

import os         # For file & folder operations
import csv        # For CSV file handling
import shutil     # For moving files

# 1. WRITE TO A TEXT FILE

try:
    # Open file in write mode (creates file if not exists)
    with open("sample.txt", "w") as file:
        file.write("Hello, this is a sample text file.\n")
        file.write("Python File Handling Example.\n")

    print("Text file created successfully.")

except Exception as e:
    print("Error while writing text file:", e)


# 2. READ FROM TEXT FILE
try:
    with open("sample.txt", "r") as file:
        content = file.read()
        print("\nReading Text File:")
        print(content)

except FileNotFoundError:
    print("Text file not found.")
except Exception as e:
    print("Error while reading text file:", e)

# 3. WRITE TO CSV FILE
try:
    with open("students.csv", "w", newline="") as csvfile:
        writer = csv.writer(csvfile)

        # Writing header
        writer.writerow(["ID", "Name", "Marks"])

        # Writing data rows
        writer.writerow([1, "Karan", 85])
        writer.writerow([2, "Rahul", 90])
        writer.writerow([3, "Sneha", 88])

    print("CSV file created successfully.")

except Exception as e:
    print("Error while writing CSV file:", e)

# 4. READ FROM CSV FILE
try:
    with open("students.csv", "r") as csvfile:
        reader = csv.reader(csvfile)

        print("\nReading CSV File:")
        for row in reader:
            print(row)

except FileNotFoundError:
    print("CSV file not found.")
except Exception as e:
    print("Error while reading CSV file:", e)

# 5. AUTOMATION - RENAME FILE
try:
    os.rename("sample.txt", "renamed_sample.txt")
    print("\nFile renamed successfully.")
```

```
except FileNotFoundError:
    print("File to rename not found.")
except Exception as e:
    print("Error while renaming file:", e)

# 6. AUTOMATION - MOVE FILE
try:
    # Create folder if not exists
    if not os.path.exists("backup"):
        os.makedirs("backup")

    # Move file to backup folder
    shutil.move("renamed_sample.txt", "backup/renamed_sample.txt")
    print("File moved to backup folder.")

except FileNotFoundError:
    print("File to move not found.")
except Exception as e:
    print("Error while moving file:", e)

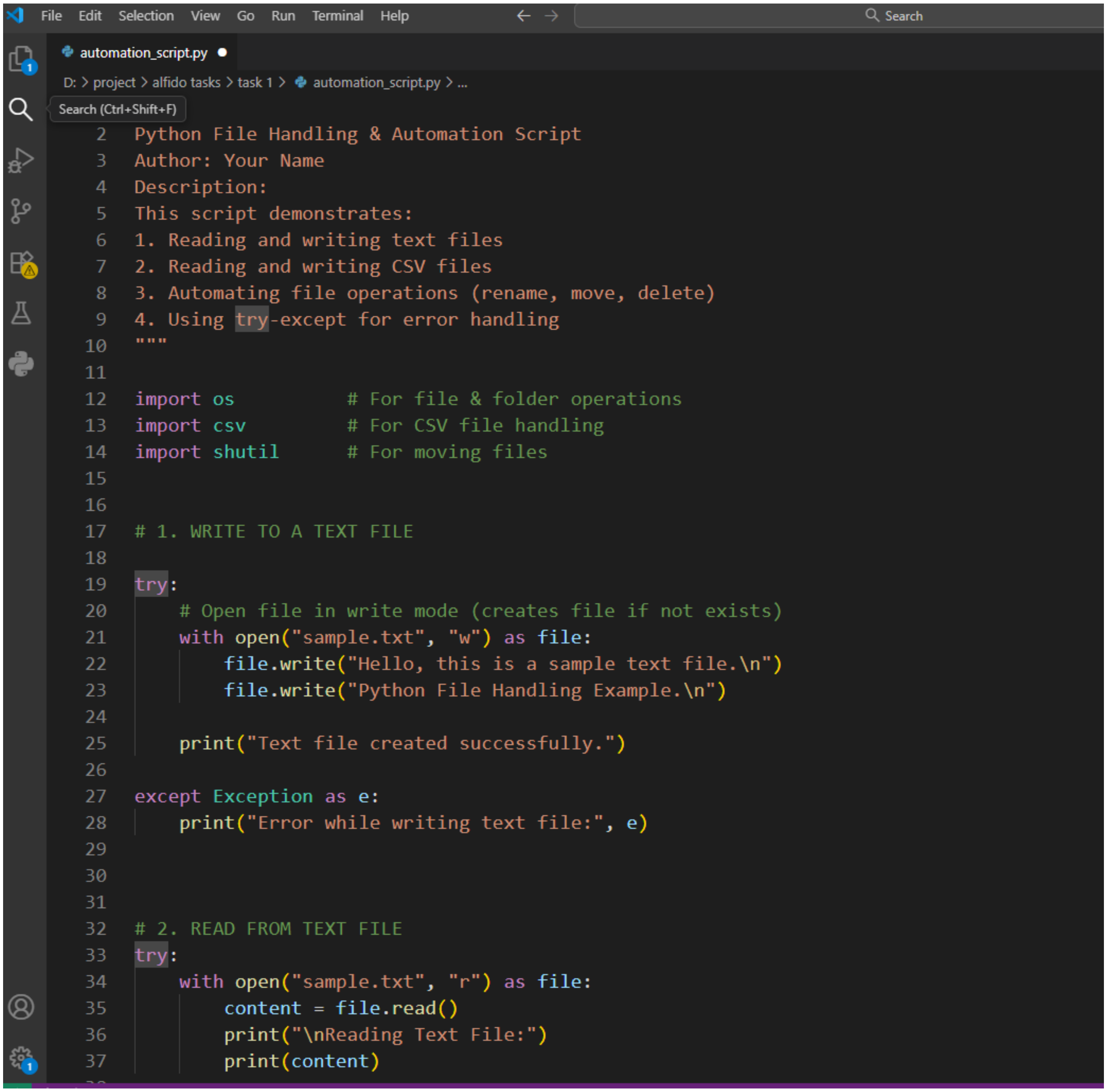
# 7. AUTOMATION - DELETE FILE
try:
    os.remove("students.csv")
    print("CSV file deleted successfully.")

except FileNotFoundError:
    print("File to delete not found.")
except Exception as e:
    print("Error while deleting file:", e)


print("\nAutomation process completed.")
```

Github repository

https://github.com/Karan6165/Alfido-Tech-Internship.git



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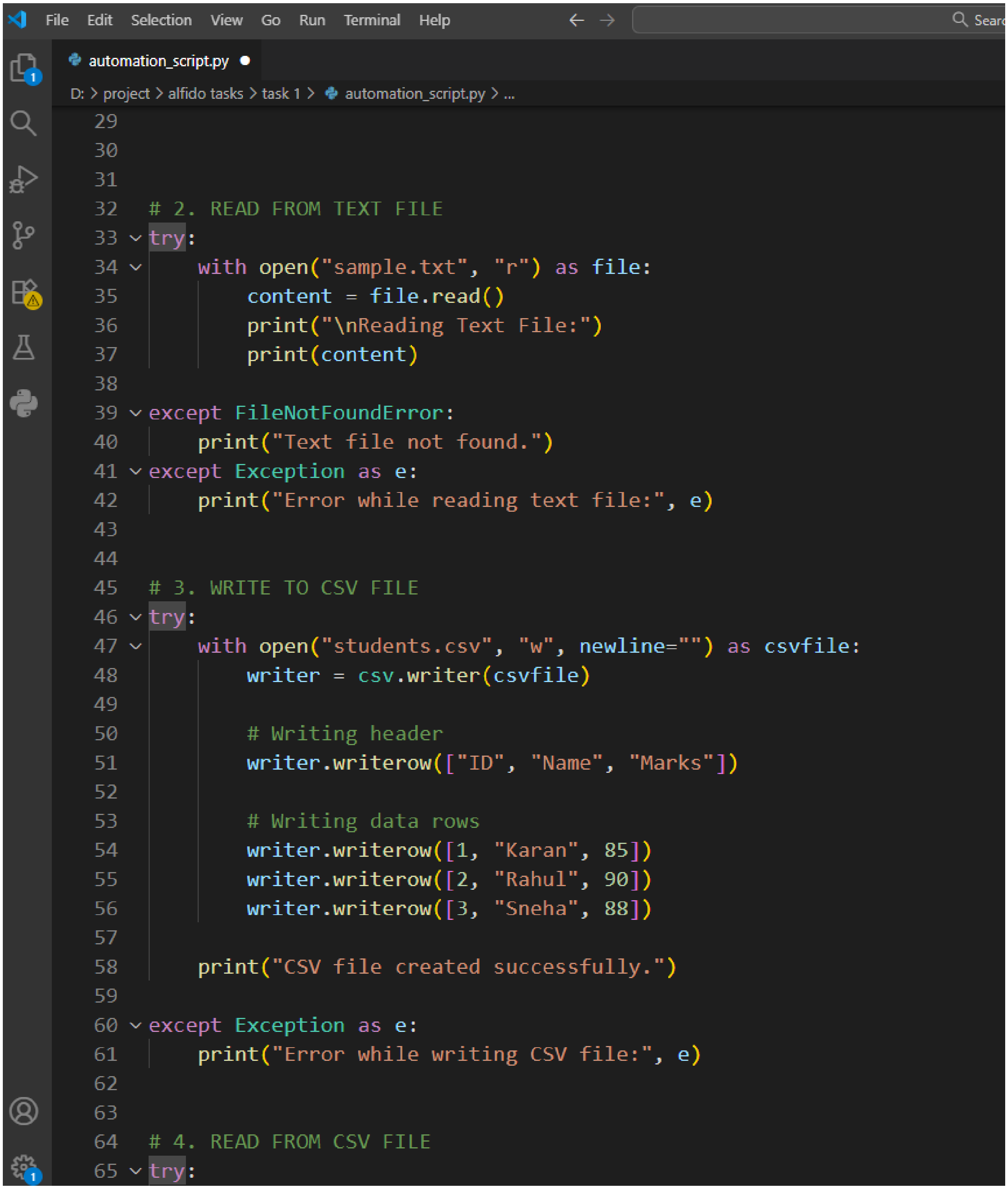
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automation_script.py
D: > project > alfido tasks > task 1 > automation_script.py > ...

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except Exception as e:
    print("Error while writing CSV file:", e)


# 4. READ FROM CSV FILE
try:
```

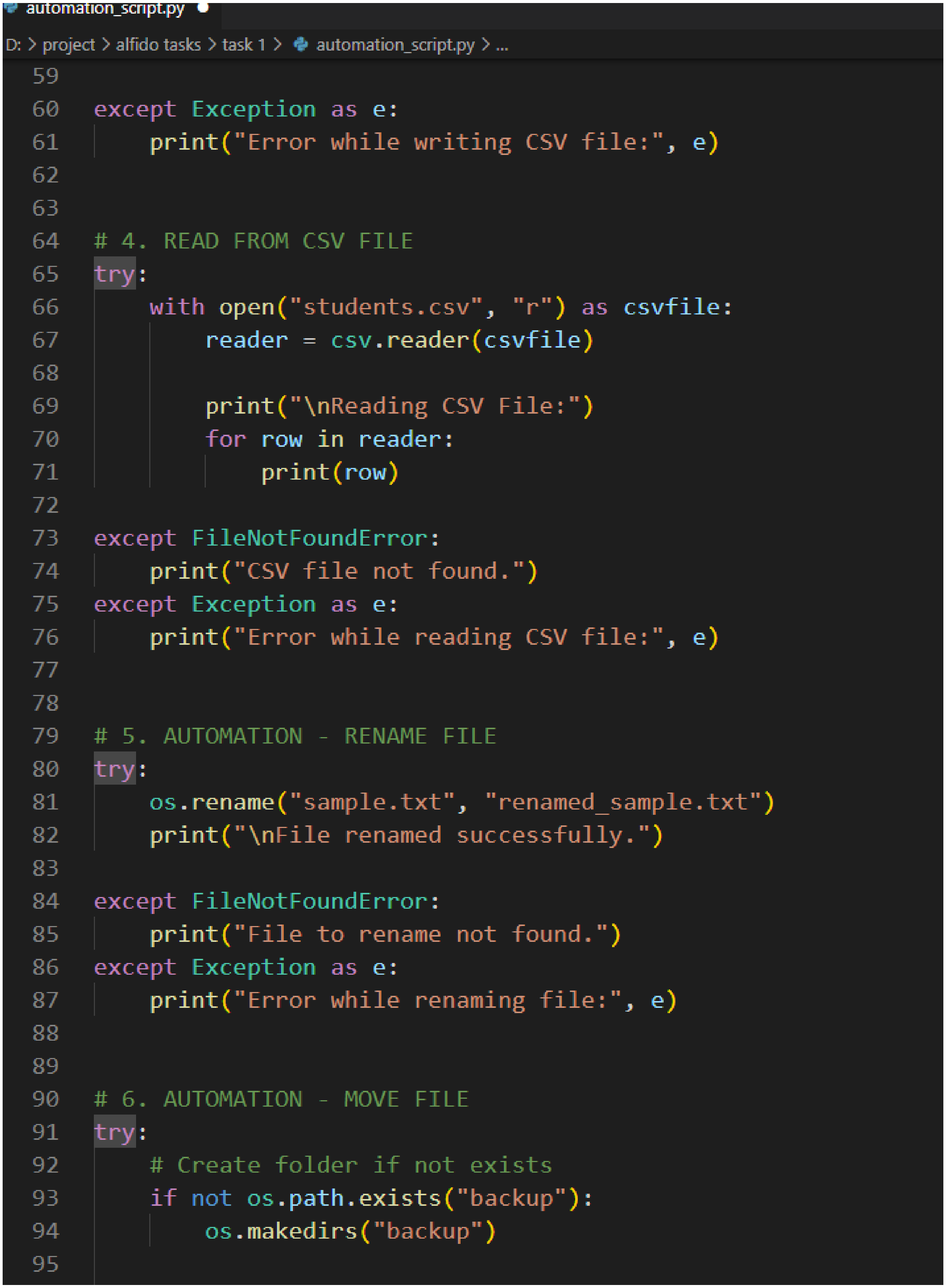
automation_script.py
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    print("File to rename not found.")
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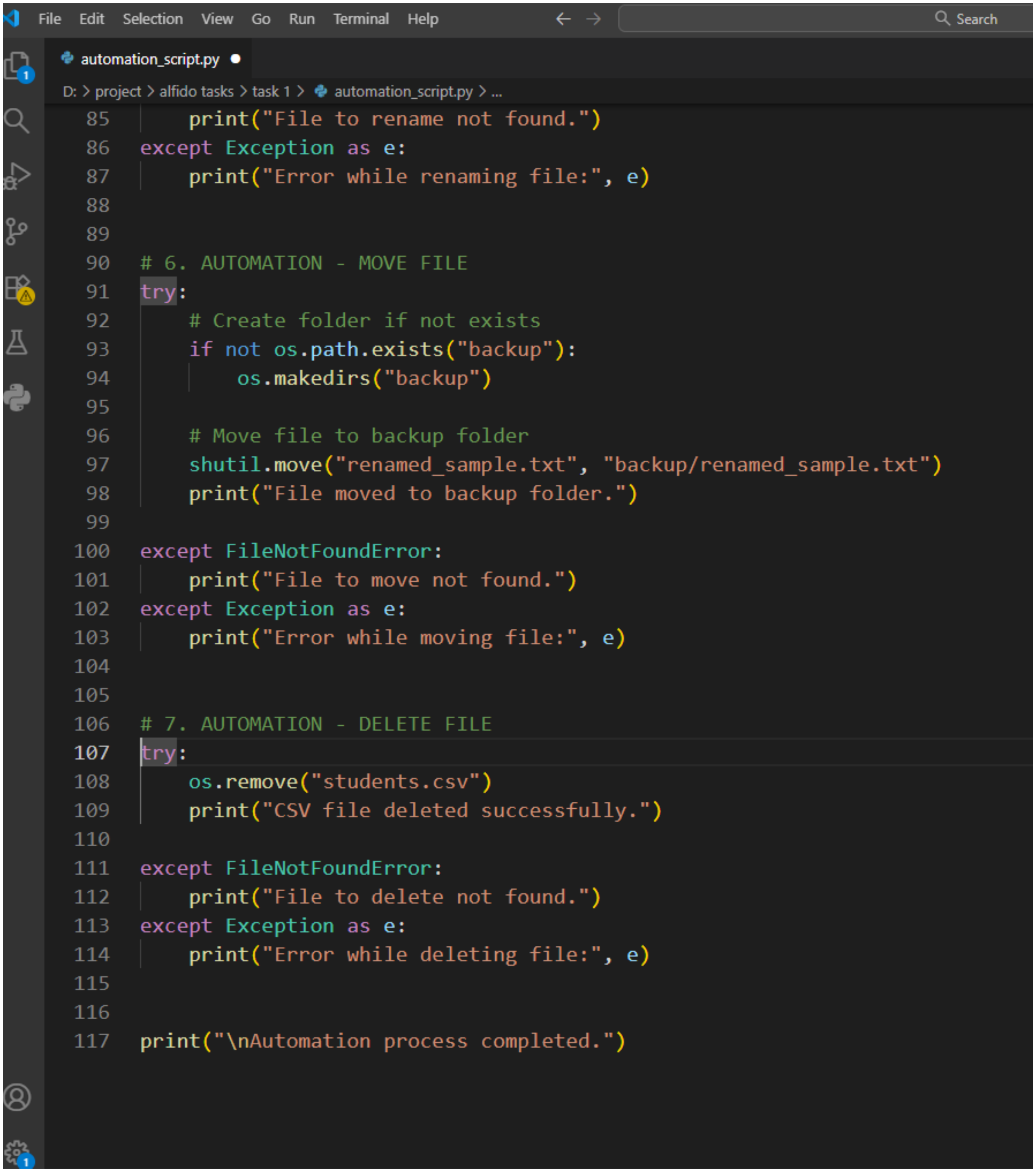
# 6. AUTOMATION - MOVE FILE
try:
    # Create folder if not exists
    if not os.path.exists("backup"):
        os.makedirs("backup")

```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# 6. AUTOMATION - MOVE FILE
try:
    # Create folder if not exists
    if not os.path.exists("backup"):
        os.makedirs("backup")

    # Move file to backup folder
    shutil.move("renamed_sample.txt", "backup/renamed_sample.txt")
    print("File moved to backup folder.")

except FileNotFoundError:
    print("File to move not found.")
except Exception as e:
    print("Error while moving file:", e)


# 7. AUTOMATION - DELETE FILE
try:
    os.remove("students.csv")
    print("CSV file deleted successfully.")

except FileNotFoundError:
    print("File to delete not found.")
except Exception as e:
    print("Error while deleting file:", e)


print("\nAutomation process completed.")
```

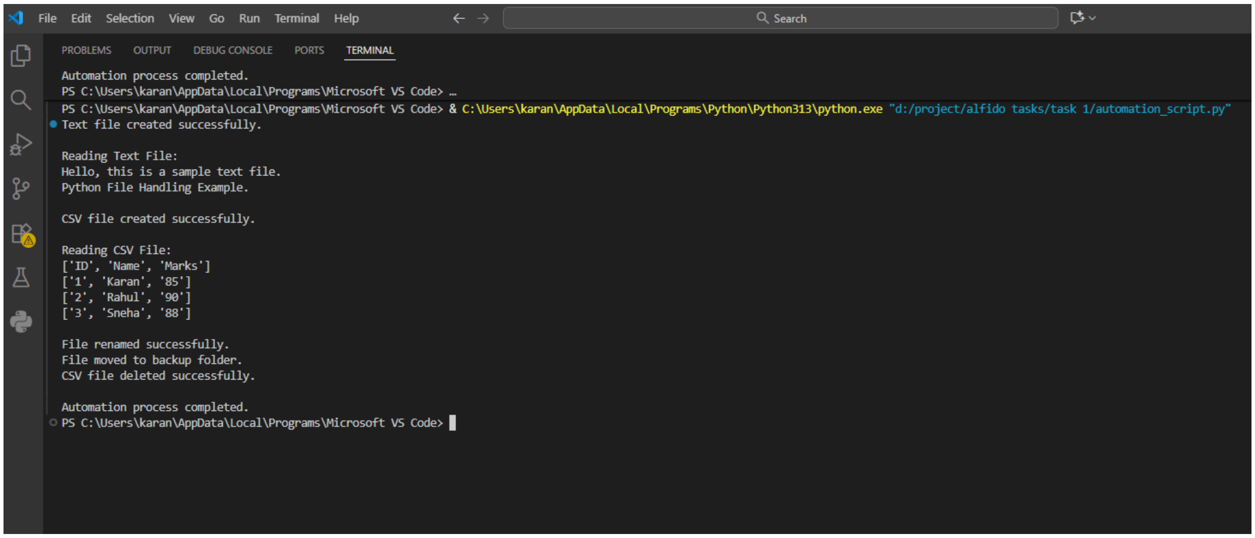

```
Automation process completed.
PS C:\Users\karan\AppData\Local\Programs\Microsoft VS Code> …
PS C:\Users\karan\AppData\Local\Programs\Microsoft VS Code> & C:\Users\karan\AppData\Local\Programs\Python\Python313\python.exe "d:/project/alfido tasks/task 1/automation_script.py"
Text file created successfully.

Reading Text File:
Hello, this is a sample text file.
Python File Handling Example.

CSV file created successfully.

Reading CSV File:
['ID', 'Name', 'Marks']
['1', 'Karan', '85']
['2', 'Rahul', '90']
['3', 'Sneha', '88']

File renamed successfully.
File moved to backup folder.
CSV file deleted successfully.

Automation process completed.
PS C:\Users\karan\AppData\Local\Programs\Microsoft VS Code>
```