Assignment

Problem Solving And Advance Programming Concept

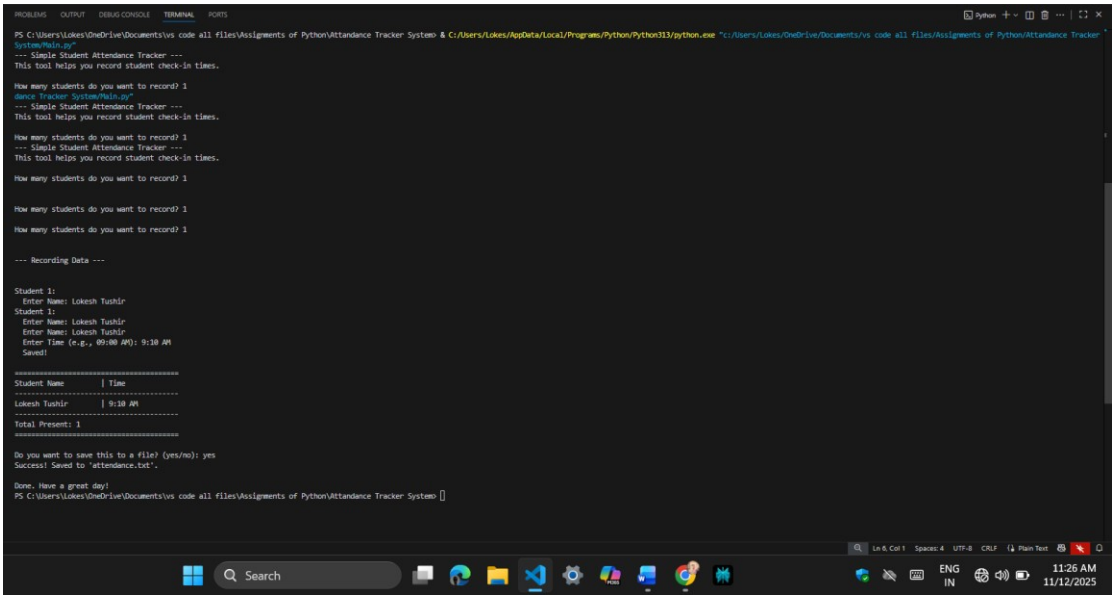
Code:-

```
def main():
    # 1. Welcome Message
    print("--- Simple Student Attendance Tracker ---")
    print("This tool helps you record student check-in times.\n")

    # Dictionary to store data (Key = Name, Value = Time)
    attendance_list = {}

    # 2. Get the number of students
    while True:
        try:
            # We use int() to convert the text input into a number
            num_students = int(input("How many students do you want to record?
"))
            if num_students > 0:
                break # Exit the loop if the number is valid
            print("Please enter a number greater than 0.")
        except ValueError:
            print("Invalid input! Please enter a number.")

    print("\n--- Recording Data ---")

    # 3. Collect Data Loop
```

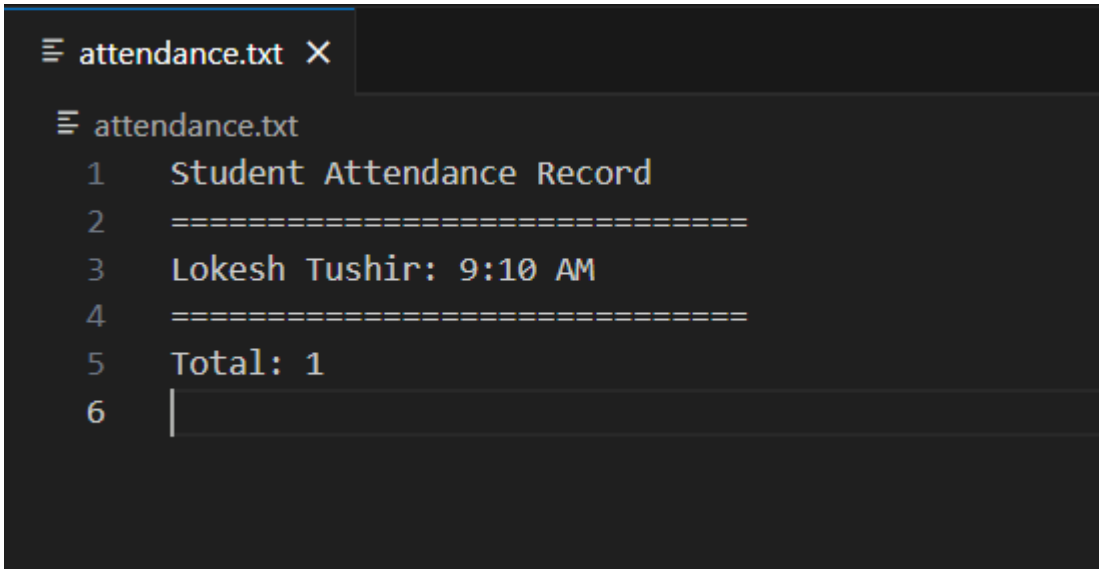
```
for i in range(num_students):
    print(f"\nStudent {i + 1}:")

    # Get the Name
    while True:
        name = input("  Enter Name: ").strip()
        if name == "":
            print("  Error: Name cannot be empty.")
        elif name in attendance_list:
            print("  Error: This student is already recorded.")
        else:
            break # Name is good

    # Get the Time
    while True:
        time = input("  Enter Time (e.g., 09:00 AM): ").strip()
        if time == "":
            print("  Error: Time cannot be empty.")
        else:
            break # Time is good

    # Save to our dictionary
    attendance_list[name] = time
    print("  Saved!")

# 4. Display Results
print("\n" + "="*40)
print(f"{'Student Name':<20} | {'Time':<15}")
print("-" * 40)
```

```
    for name, time in attendance_list.items():
        print(f"{name:<20} | {time:<15}")

    print("-" * 40)
    print(f"Total Present: {len(attendance_list)}")
    print("="*40)

    # 5. Save to File (Optional)
    save = input("\nDo you want to save this to a file? (yes/no): ").lower()

    if save == "yes" or save == "y":
        # Opens (or creates) a file named 'attendance.txt'
        with open("attendance.txt", "w") as file:
            file.write("Student Attendance Record\n")
            file.write("="*30 + "\n")
            for name, time in attendance_list.items():
                file.write(f"{name}: {time}\n")
            file.write("="*30 + "\n")
            file.write(f"Total: {len(attendance_list)}\n")

        print("Success! Saved to 'attendance.txt'.")

    print("\nDone. Have a great day!")

# Run the program
if __name__ == "__main__":
    main()
```

Output:



Tracker.txt



Github Link: https://github.com/rijusaha8521 Attendance-Tracker