

Assignment

Problem Solving And Advance Programming Concept

**Name: Riju kumar saha
Roll No. : 2501940018
MCA(AI & ML)**

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"\n{name}<20} | {time}<15}\n")

    print("-" * 40)

    print(f"\nTotal Present: {len(attendance_list)}\n")
    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"\n{name}: {time}\n")

            file.write("*30 + "\n")

            file.write(f"\nTotal: {len(attendance_list)}\n")

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

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

Run the program

```
if __name__ == "__main__":
    main()
```

Output:

The screenshot shows a terminal window in VS Code displaying the output of a Python script. The script is a simple student attendance tracker. It asks for the number of students (3), records their names and times (Riju kr saha at 9:45, Lokesh at 9, Harsh at 9:10), and prints a summary table. The total present count is 3.

```
PS C:\Users\ASUS\OneDrive\Desktop\Assignments python> python -u "c:\Users\ASUS\OneDrive\Desktop\Assignments python\ass_1.py"
--- Simple Student Attendance Tracker ---
This tool helps you record student check-in times.

How many students do you want to record? 3

--- Recording Data ---

Student 1:
Enter Name: Riju kr saha
Enter Time (e.g., 09:00 AM): 9:45
Saved!

Student 2:
Enter Name: Lokesh
Enter Time (e.g., 09:00 AM): 9
Saved!

Student 3:
Enter Name: Harsh
Enter Time (e.g., 09:00 AM): 9:10
Saved!

=====
Student Name | Time
-----
Riju kr saha | 9:45
Lokesh | 9
Harsh | 9:10
-----
Total Present: 3
=====
```

Tracker.txt

The screenshot shows a terminal window displaying the output of the Python script for one student. It asks for one student, records the name and time (Riju kumar saha at 9), and prints a summary table. The total present count is 1. It then asks if the user wants to save the data to a file.

```
PS C:\Users\ASUS\OneDrive\Desktop\Assignments python> python -u "c:\Users\ASUS\OneDrive\Desktop\Assignments python\ass_1.py"
--- Simple Student Attendance Tracker ---
This tool helps you record student check-in times.

How many students do you want to record? 1

--- Recording Data ---

Student 1:
Enter Name: Riju kumar saha
Enter Time (e.g., 09:00 AM): 9
Saved!

=====
Student Name | Time
-----
Riju kumar saha | 9
-----
Total Present: 1
=====

Do you want to save this to a file? (yes/no): 
```

Github Link: <https://github.com/rijusaha8521/Assignment-Python-Riju>

