

# **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:

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS C:\Users\Lokes\OneDrive\Documents>vs code all files\Assignments of Python\Attendance Tracker System & C:\Users\Lokes\AppData\Local\Programs\Python\Python313\python.exe "C:\Users\Lokes\OneDrive\Documents\vs code all files\Assignments of Python\Attendance Tracker System\Main.py"
--- Simple Student Attendance Tracker ---
This tool helps you record student check-in times.

How many students do you want to record? 1
Enter Tracker System/Main.py
--- Simple Student Attendance Tracker ---
This tool helps you record student check-in times.

How many students do you want to record? 1
--- Simple Student Attendance Tracker ---
This tool helps you record student check-in times.

How many students do you want to record? 1

How many students do you want to record? 1

How many students do you want to record? 1

--- Recording Data ---

Student 1:
Enter Name: Lokesh Tushir
Student 1:
Enter Name: Lokesh Tushir
Enter Name: Lokesh Tushir
Enter Time (e.g., 09:00 AM): 9:10 AM
Saved!

=====
Student Name      | Time
=====
Lokesh Tushir    | 9:10 AM
=====
Total Present: 1
=====

Do you want to save this to a file? (yes/no): yes
Success! Saved to "attendance.txt".

Done. Have a great day!
PS C:\Users\Lokes\OneDrive\Documents>vs code all files\Assignments of Python\Attendance Tracker System

```

## Tracker.txt

```
attendance.txt X
attendance.txt
1 Student Attendance Record
2 =====
3 Lokesh Tushir: 9:10 AM
4 =====
5 Total: 1
6 |
```

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

