

Python Assignment - 1

School of Engineering & Technology

Department: SOET	Session: 2025-26
Program: MCA (AI & ML)	Semester: 1
Course Code: ETCCPP171	College Roll no: 2501940074
Course Name: Programming for Problem Solving Using Python	
Submitted by: Khushi	Faculty: Ms. Neha Kaushik

Input:-

```
''' Name: Khushi
```

```
Date: 10-Nov-2025
```

```
Assignment Title: Attendance Tracker - Python assignment 01
```

```
Course: Programming for Problem Solving Using Python(ETCCPP171)'''
```

```
from datetime import datetime
```

```
print("\nWelcome to the Command-Line Attendance Tracker!")
```

```
print("This tool helps record student attendance efficiently.\n")
```

```
attendance = {}
```

```
num_entries_input = input("Enter number of students to record: ")
```

```
if num_entries_input.isdigit():
```

```
    num_entries = int(num_entries_input)
```

```
if num_entries > 0:
```

```
    count = 1
```

```
while count <= num_entries:  
    print(f"\n--- Entry {count} ---")  
  
    name = input("Enter student name: ").strip()  
  
    if name == "":  
        print("Name cannot be empty. Please try again.")  
        continue  
  
    elif name in attendance:  
        print("Duplicate entry! This student is already recorded.")  
        continue  
  
    else:  
        time = input("Enter check-in time: ").strip()  
  
        if time == "":  
            print("Timestamp missing. Please try again.")  
            continue  
  
        else:  
            attendance[name] = time  
            print("Entry recorded successfully.")  
            count += 1  
  
    else:  
        print("Number of entries must be greater than zero.")  
  
else:  
    print("Invalid input! Please enter a valid number for entries.")  
  
  
print("\nAttendance Summary".center(45, "-"))  
print(f'{Student Name}:20s\t{Check-in Time}')  
print("-" * 45)  
  
if len(attendance) > 0:
```

```
for name, time in attendance.items():
    print(f"{name:20s}\t{time}")

else:
    print("No attendance records found.")

print("-" * 45)
print(f"Total Students Present: {len(attendance)}")

save_choice = input("\nDo you want to save this attendance record? (yes/no): ").lower()

if save_choice == "yes":
    if len(attendance) > 0:
        with open("attendance_log.txt", "w") as file:
            file.write("Attendance Report\n")
            file.write(f"Generated on: {datetime.now().strftime('%d-%m-%Y %H:%M:%S')}\n\n")
            file.write(f"{'Student Name':20s}\t{'Check-in Time'}\n")
            file.write("-" * 45 + "\n")
            for name, time in attendance.items():
                file.write(f"{name:20s}\t{time}\n")
            file.write("-" * 45 + "\n")
            file.write(f"Total Present: {len(attendance)}\n")
        print("Attendance successfully saved to 'attendance_log.txt'!")

    else:
        print("No data to save.")

else:
    print("Data not saved.")

print("\nThank you for using the Attendance Tracker!\n")
```

OUTPUT:

The screenshot shows a Microsoft Visual Studio Code (VS Code) interface. The title bar reads "Attendance_Tracker". The left sidebar (EXPLORER) shows a folder named "ATTENDANCE" containing files "tracker.py" and "attendance_log.txt". The main editor area displays the contents of "attendance_log.txt". The text in the editor is as follows:

```
1 Attendance Report
2 Generated on: 18-11-2025 15:50:55
3
4 Student Name           Check-in Time
5 -----
6 Khushi Nagpal          9:10 AM
7 Tanya Bhatia           9:10 AM
8 Vishakha Gaur          9:20 AM
9 Nitin                  9:00 AM
10 Tushar Singh           10:00 AM
11 -----
12 Total Present: 5
13 +
```

```
File Edit Selection View Go Run Terminal Help ← → Q Attendance_Tracker
```

attendance.py

```
import OUTPUT
import INPUT
import TERMINAL
```

```
def attendance_log():
    print("Welcome to the Command Line Attendance Tracker!")
    print("This tool helps record student attendance efficiently.")

    student_count = int(input("Enter number of students to record: "))

    for i in range(student_count):
        print(f"\nEntry {i + 1} ---")
        student_name = input("Enter student name: ")
        entry_time = input("Enter check-in time: (e.g. 8:00 AM) ")
        entry_recd = INPUT.read_entry(student_name, entry_time)
        if entry_recd:
            print("Entry recorded successfully.")
        else:
            print("Entry failed to record. Please try again.")

    print("\nAttendance Summary ---")
    summary = INPUT.get_summary()
    print(summary)

    total_students = len(summary)
    print(f"\nTotal Students Present: {total_students}")

    if total_students > 0:
        print("Do you want to save this attendance record? (yes/no): ")
        choice = input().lower()
        if choice == "yes":
            OUTPUT.save_entry(summary)
            print("Attendance successfully saved to 'attendance_log.txt'!")

    print("\nThank you for using the Attendance Tracker!")


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

```
C:\Users\shubham\Desktop\Attendance_Tracker> python -u "C:\Users\shubham\Desktop\Attendance_Tracker\attendance_log.py"
```