

**K. R. MANGALAM
UNIVERSITY**

**Programming for Problem Solving Using
Python**

ASSIGNMENT 1

Assignment Title: Attendance Tracker

Student Name : Rajat Dixit

Roll No. : 2501940058

Program : MCA (AI & ML)

Semester : I

Session : 2025-26

Github :- https://github.com/rajatdixit5204-gif/Attendance_tracker

Faculty Name : Ms. Neha Kaushik

Date of Submission : 12/11/2025

Source Code

Name: Rajat Dixit

Date: 12/11/2025

Assignment: Attendance Tracker

```
import csv

from datetime import datetime

attendance = {}

def include_attendance():

    print("\n -----Insert the Entry -----")

    while True :

        students = input("Enter the name of the student :").strip()

        if students =="":

            print("Invalid name")

            continue

        elif students in attendance :

            print("Name is already recorded")

            continue

        time = input("Enter arrival time (HH:MM AM/PM) :").strip()

        if time.strip() == " ":

            print("INVALID Enter again")

            continue

        attendance[students]= time

        print(f"{students} Arrived at {time}")

    another = input("do you want to add another record of new student (y/n) :").strip().lower()
```

```
if another != "y":  
    break  
  
def record_attendance():  
  
    if len(attendance) == 0:  
        print("\n No records found ")  
        return  
  
    print("\n ===== ATTENDANCE =====\n")  
    print("Student Name\t\t Arrival Time")  
    print("-----")  
  
    for student, arrive in attendance.items():  
        print(f"{student}\t\t{arrive}")  
  
        print("-----")  
        print(f"Total Students Present: {len(attendance)}")  
  
def file_csv():  
  
    if len(attendance) == 0:  
        print("\n No records present.")  
        return  
  
    filename = "attendance_log.csv"  
    n = datetime.now().strftime("%d-%m-%Y %I:%M %p")  
  
    with open(filename, "w", newline="") as file:  
        writer = csv.writer(file)  
        writer.writerow([" Attendance "])
```

```
writer.writerow([f"Generated on: {n}"])

writer.writerow([])

writer.writerow(["Student Name", "Arrival Time"])

for student, time in attendance.items():

    writer.writerow([student, time])

writer.writerow([])

writer.writerow(["Total Students Present", len(attendance)])


print(f"\n Attendance has been saved to '{filename}'")

def absent_student():

    if len(attendance) == 0:

        print("\nThe record is empty")

        return

    try:

        total = int(input("\nEnter total number of students in class: "))

        absent = total - len(attendance)

        print(f"Total Present: {len(attendance)}")

        print(f"Total Absent: {absent}")

    except:

        print("Invalid number. Try again.")


def menu_view():

    while True:

        print("=====")

        print("\n===== MENU =====")

        print("1. Insert Attendance")
```

```
print("2. View the saved attendance")
print("3. Save inside CSV file")
print("4. Number of students absent")
print("5. Exit")
print("=====")  
  
choice = input(" Your choice (1-5): ")
if choice == "1":
    include_attendance()
elif choice == "2":
    record_attendance()
elif choice == "3":
    file_csv()
elif choice == "4":
    absent_student()
elif choice == "5":
    print("\nThank you for using Attendance Tracker")
    break
else:
    print("Invalid choice. Try again.")  
  
menu_view()
```

Output-1

```
python_assignment1.py
...
def absent_student():
    print("===== MENU =====")
    print("1. Insert Attendance")
    print("2. View the saved attendance")
    print("3. Save inside CSV file")
    print("4. Number of students absent")
    print("5. Exit")
    print("===== ")
    choice = input("Your choice (1-5): ")

    if choice == "1":
        name = input("Enter the name of the student :")
        arrival_time = input("Enter arrival time (HH:MM AM/PM) :")
        print(name, "Arrived at", arrival_time)
        do you want to add another record of new student (y/n) :y
        name = input("Enter the name of the student :")
        arrival_time = input("Enter arrival time (HH:MM AM/PM) :")
        print(name, "Arrived at", arrival_time)
        do you want to add another record of new student (y/n) :n
    elif choice == "5":
        exit()

absent_student()
```

Output-2

```
python_assignment1.py
...
def absent_student():
    print("===== MENU =====")
    print("1. Insert Attendance")
    print("2. View the saved attendance")
    print("3. Save inside CSV file")
    print("4. Number of students absent")
    print("5. Exit")
    print("===== ")
    choice = input("Your choice (1-5): ")

    if choice == "1":
        name = input("Enter the name of the student :")
        arrival_time = input("Enter arrival time (HH:MM AM/PM) :")
        print(name, "Arrived at", arrival_time)
        do you want to add another record of new student (y/n) :n
    elif choice == "5":
        exit()

absent_student()

Student Name      Arrival Time
Aman kumar sharma 09:30 AM
Ankit kumar       09:32 AM
Uday prag         09:35 AM
-----
Total Students Present: 3
-----
MENU
1. Insert Attendance
2. View the saved attendance
3. Save inside CSV file
4. Number of students absent
5. Exit
=====
Your choice (1-5):
```

Output-3

The screenshot shows a Microsoft Visual Studio Code (VS Code) interface. The left sidebar includes icons for Explorer, Search, Problems, and Terminal. The main area has tabs for File, Edit, Selection, View, Go, Run, etc., and a search bar at the top right. The terminal tab is active, displaying the output of a Python script named `python_assignment1.py`. The script runs a menu system and saves data to a CSV file.

```
python_assignment1.py
vscode > python_assignment1.py > menu_view
78  def absent_student():
    PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
    Python ... x

1. Insert Attendance
2. View the saved attendance
3. Save inside CSV file
4. Number of students absent
5. Exit
=====
Your choice (1-5): 3

Attendance has been saved to 'attendance_report.csv'
=====

===== MENU =====
1. Insert Attendance
2. View the saved attendance
3. Save inside CSV file
4. Number of students absent
5. Exit
=====
Your choice (1-5): 4

Enter total number of students in class: 20
Total Present: 3
Total Absent: 17
=====

===== MENU =====
1. Insert Attendance
2. View the saved attendance
3. Save inside CSV file
4. Number of students absent
5. Exit
=====
Your choice (1-5): 1
```

At the bottom of the terminal window, status information is displayed: Line 92, Col 1, Spaces: 4, UTF-8, CRLF, Python 3.14.0, Go Live, and a small icon.