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 "])
```

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        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}'")

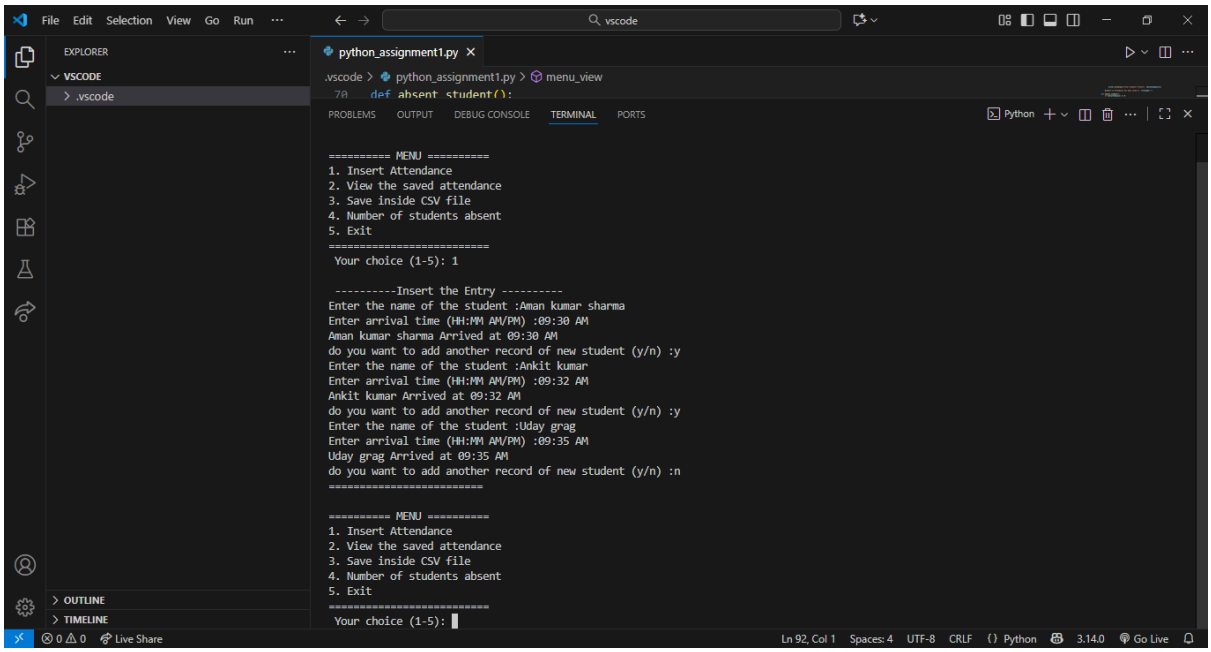
def absent_student():
    if len(attendance) == 0:
        print("\nThe record is empty")
        return
    try:
        total = int(input("\n Enter total number of students in class: "))
        absent = total - len(attendance)
        print(f"Total Present: {len(attendance)}")
        print(f"Total Absent: {absent}")
    except:
        print("Invalid number. Try again.")

def menu_view():
    while True:
        print("========================")
        print("\n========== MENU ==========")
        print("1. Insert Attendance")
```

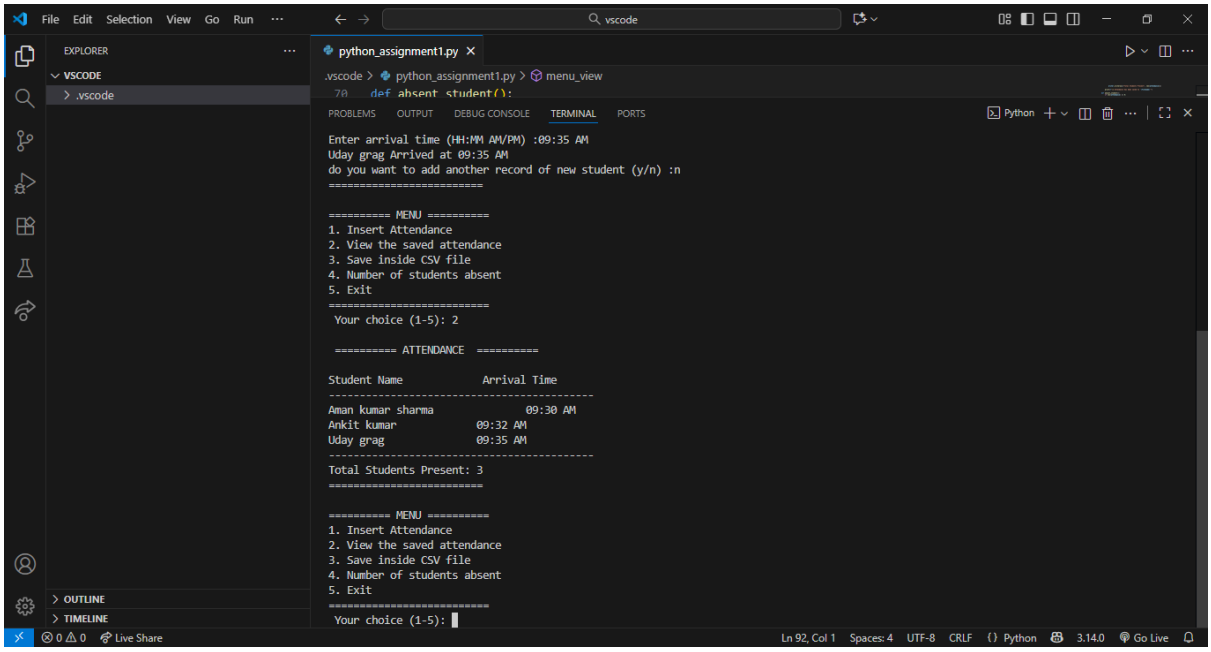
```
        print("2. View the saved attendance")
        print("3. Save inside CSV file")
        print("4. Number of students absent")
        print("5. Exit")
        print("==========================")

        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()
```

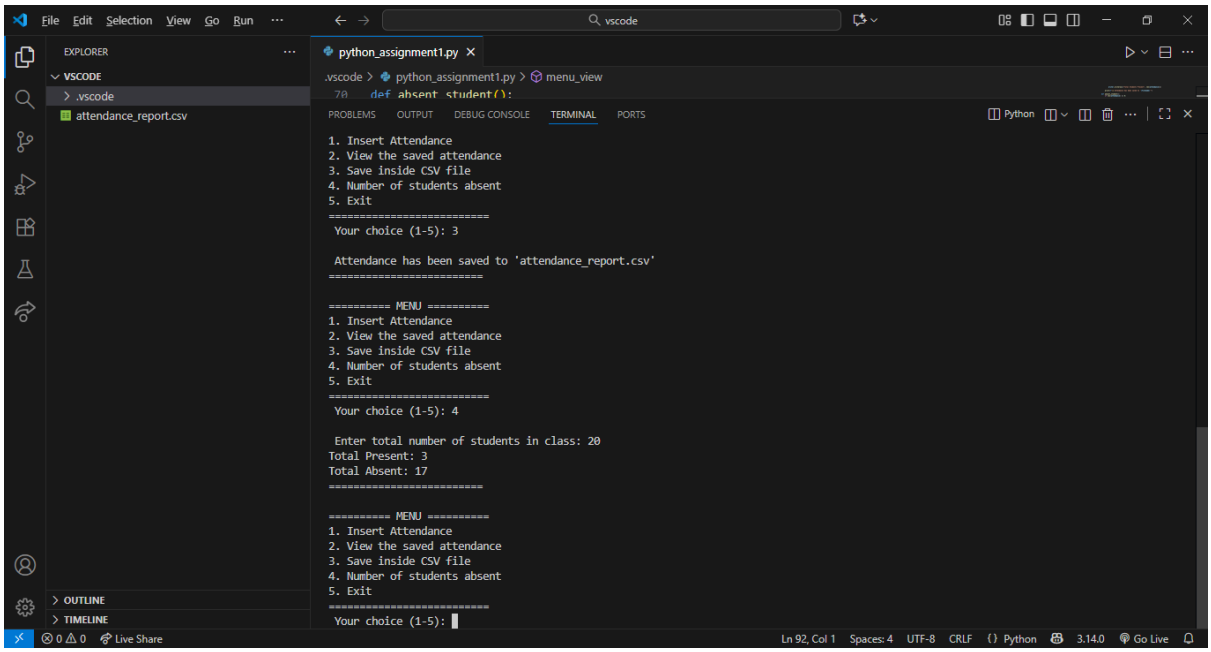
Output-1



Output-2



Output-3


File Edit Selection View Go Run
vscode
EXPLORER
VSCODE
.vscode
attendance_report.csv
python_assignment1.py
.vscode > python_assignment1.py > menu_view
def absent_student():
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Python
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):
OUTLINE
TIMELINE
Live Share
Ln 92, Col 1 Spaces: 4 UTF-8 CRLF Python 3.14.0 Go Live