ASSIGNMENT - 1

SCHOOL OF ENGINEERING AND TECHNOLOGY

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COURSE : B TECH CSE (AI&ML)
SECTION : B
SUBJECT : PYTHON

Mini Project Report – Daily Calorie Tracker

Assignment Title: Daily Calorie Tracker Console Application

1. Introduction

In this mini project, I built a simple **Daily Calorie Tracker** using Python. The goal of the program is to let the user enter their meals and calorie intake, calculate total and average calories, and check whether they are within their daily calorie limit. The project is designed as a **Command Line Interface (CLI)** tool and focuses on basic Python concepts like input handling, lists, loops, arithmetic operators, and file handling.

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2. Project Tasks Completed

Task 1 – Setup & Welcome Message

I created the main project folder and wrote the initial Python script *tracker.py*.
I added a header with my name, date, and project title, and displayed a welcome message explaining the purpose of the tool.

Task 2 – Input & Data Storage

The program asks the user how many meals they want to enter.
For each meal:

- I take the meal name using **input()**
- Take the calorie value and convert it using **int()**
- Store meal names in one list and calories in another list

This helped me understand list handling and loops better.

Task 3 – Calculations

I used Python's **sum()** function to calculate the total calories.
Then I calculated the average per meal and asked the user for their daily calorie limit.
A comparison is made to check if the user is above or below the limit.

Task 4 – Warning System

Using simple if–else conditions, the program prints a warning if the total calories exceed the daily limit. Otherwise, it shows a message saying the user is within the safe range.

Task 5 – Formatted Output

I used f-strings, tabs (\t), and newlines (\n) to print a clean summary table of all meals and calories, along with:

- Total calorie intake
- Average calories per meal
- Limit status

This helped in learning how to format output neatly in a CLI application.

Task 6 (Bonus) – Saving Log to File

The program asks the user if they want to save the session. If they choose yes, it writes the entire report into a `.txt` file with a timestamp.
This strengthened my understanding of file handling in Python.

3. Learning Outcomes

By completing this project, I learned:

- How to take user input and convert data types
- Storing and managing data using lists
- Performing arithmetic calculations and comparisons
- Using string formatting to display clean output
- Basics of **file I/O** in Python
- Applying logic to build a real-world mini tool

4. Conclusion

This assignment helped me understand how Python can be used for solving day-to-day problems. By building a simple calorie tracking CLI app, I practiced multiple Python concepts together in one project. The project strengthened my logical thinking and gave me confidence in writing user-friendly programs.