

ASSIGNMENT NO.-1

Daily Calorie Tracker – Mini Project Report

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COURSE- BTECH CSF (AIML)

SUBJECT- PROBLEM SOLVING USING PYTHON

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Introduction

The Daily Calorie Tracker is a Python-based Command Line Interface (CLI) tool designed to help users monitor their daily calorie intake. It allows users to enter multiple meals, record calorie amounts, check whether they are within their daily calorie limit, and optionally save a session report to a file. This mini project demonstrates practical use of basic Python programming concepts in a real-world context.

Project Objectives

The primary objectives of this project were:

- . To gather user input through the `input()` function.
- . To store and organize meal information using lists.
- . To perform calculations such as total and average calorie intake.
- . To apply comparison operators and conditional statements.
- . To format text output using f-strings, tabs, and newlines.
- . To practice file handling by writing session logs to a `.txt` file.

Results

The final program successfully performs:

- . Meal and calorie logging
- . Total & average calorie calculations
- . Calorie limit checking
- . Clean summary display

Session log file saving
This demonstrates foundational skills required to build real-world CLI

applications.

5. Conclusion

The Daily Calorie Tracker project effectively integrates essential

Python programming concepts such as user input, loops, lists,

arithmetic operations, conditional logic, string formatting, and file

```
import datetime

print("\n====")
print(" DAILY CALORIE TRACKER")
print("=====\n")
print("This tool allows you to:")
print("- Log your meals")
print("- Track daily total calories")
print("- Compare with your daily limit")
print("- Optionally save your session log\n")

meal_names = []
meal_calories = []

num_meals = int(input("How many meals would you like to enter today? "))

for i in range(num_meals):
    print(f"\nMeal #{i+1}")
    name = input("Enter meal name: ")
    calories = float(input("Enter calorie amount: "))
    meal_names.append(name)
    meal_calories.append(calories)

print("\nMeals recorded successfully!\n")

total_calories = sum(meal_calories)
average_calories = total_calories / num_meals if num_meals > 0 else 0

daily_limit = float(input("Enter your daily calorie limit: "))

if total_calories > daily_limit:
    limit_message = "⚠ WARNING: You exceeded your daily calorie limit!"
else:
    limit_message = "✅ Good job! You are within your daily calorie limit."

print("\n====")
print(" DAILY SUMMARY")
print("=====\n")

print("Meal Name\tCalories")
print("-----")

for i in range(num_meals):
    print(f"{meal_names[i]}\t{meal_calories[i]}")

print("-----")
print(f"Total: {total_calories}")
print(f"Average: {average_calories:.2f}\n")
print(limit_message)

save_choice = input("\nWould you like to save this session? (yes/no): ").strip().lower()

if save_choice == "yes":
    timestamp = datetime.datetime.now().strftime("%Y-%m-%d_%H-%M-%S")
    filename = f"calorie_log_{timestamp}.txt"
```

strengthens logical

with building

placed in the future.

```

with open(filename, "w") as file:
    file.write("DAILY CALORIE TRACKER\n")
    file.write("=====\\n")
    file.write(f"Timestamp: {timestamp}\\n\\n")
    file.write("Meal Name\tCalories\\n")
    file.write("-----\\n")

    for i in range(num_meals):
        file.write(f"{meal_names[i]}\t{meal_calories[i]}\\n")

    file.write("-----\\n")
    file.write(f"Total:\t{total_calories}\\n")
    file.write(f"Average:\t{average_calories:.2f}\\n\\n")
    file.write(limit_message + "\\n")

    print(f"\n💾 Session saved as: {filename}")

else:
    print("\nSession not saved.")

print("\nThank you for using the Daily Calorie Tracker!")
|
```

```

=====
DAILY CALORIE TRACKER
=====

This tool allows you to:
- Log your meals
- Track daily total calories
- Compare with your daily limit
- Optionally save your session log

How many meals would you like to enter today? 3

Meal #1
Enter meal name: Breakfast
Enter calorie amount: 98

Meal #2
Enter meal name: lunch
Enter calorie amount: 56

Meal #3
Enter meal name: dinner
Enter calorie amount: 87

Meals recorded successfully!

Enter your daily calorie limit: 100

=====
DAILY SUMMARY
=====

Meal Name      Calories
-----
Breakfast      98.0
lunch          56.0
dinner         87.0
-----
Total:        241.0
Average:      80.33

⚠WARNING: You exceeded your daily calorie limit!

Would you like to save this session? (yes/no): |
```

Uses of the Daily Calorie Tracker Tool

1 Track Daily Calorie Intake

The tool helps users record everything they eat in a day and see how many calories they have consumed in total.

2 Improve Personal Health Awareness

By knowing how many calories each meal contains, users can make better decisions about their eating habits.

3 Compare Calories With a Daily Limit

Users can set their own daily calorie limit (e.g., 2000 calories).

The program will automatically check whether they stayed within the limit or exceeded it.

4 Analyze Eating Patterns

The tool shows:

- _____ Total calories
- _____ Average calories per meal

This helps users understand if certain meals are too high in calories.