"Python Programming"

Assignment-1

Topic – Building a Calorie Tracking Console App

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Course – B. Tech CSE (AI & ML)

Section – A

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Introduction

The purpose of this lab assignment was to develop a quick and simple method for monitoring daily calorie intake. This mini-project aims to help students build a Python-based CLI (Command-Line Interface) tool where they can log their meals, track total calories consumed, compare against their personal daily limit, and save session logs for future tracking.

Objectives

- To practice Python basics such as variables, data types, and operators.
- To collect and store multiple inputs using lists.
- To perform arithmetic operations like summing and averaging.
- To use conditional statements to compare values.
- To display data in a structured tabular format.
- To implement file handling for generating a text-based report.
- To use the datetime module to timestamp the report.

Program Description

The program developed (tracker.py) is a Daily Calorie Tracking Console App. It prompts the user for inputs, stores meal information, calculates calories, displays a summary table, and optionally saves the report to a file.

Program Code

```
#Meghna Kumar
#30-10-2025
#Daily Calorie Tracking Console App
from datetime import datetime
print("welcome to the daily calorie tracker which makes it easy for you to calculate your daily calorie intake")

list1=[]
list2=[]

meal_amount=int(input("Enter how many meals you had today?"))

#Data input

for i in range(meal_amount):
    meal=input("Enter the meal you ate:")
    calorie=float(input("Enter the amount of calories it contains:"))
    list1.append(meal)
    list2.append(calorie)
print("meals list:",list1)
print("calories list:",list2)

total_Calories=sum(list2)
print(total_Calories)
avg_calories=total_Calories/len(list2)
limit=float(input("Enter the daily calorie limit:"))
if total_Calories > limit:
    print("You have exceeded your calorie goal")
else:
    print("You are within you calorie goal")

#summary table

print("Meal Name\tCalorie")
print("-----------------------")
for i in range(len(list1)):
    print(f"{list1[i]}\t\t{list2[i]}")
print("Total:\t\t",total_Calories)
print("Average:\t",avg_calories)


print("Average:\t",avg_calories)

#Report

save=input("Do you want to save the report?")
if save == 'yes':
    with open("calorie.txt","w") as file:
        file.write("Daily Calorie Report\n")
        file.write(f"Date & Time: {datetime.now()}\n\n")
        for i in range(len(list1)):
            file.write(f"{list1[i]} - {list2[i]} calories\n")
        file.write(f"\nTotal calories: {total_Calories}\n")
        file.write(f"Average calories: {avg_calories:.2f}\n")
        if total_Calories > limit:
            status="You have exceeded your calorie goal"
        else:
            status="You are within your calorie goal"
        file.write(f"Status: {status}\n")


    print("Report saved successfully")
else:
    print("Report not saved")
```

Sample Output

```
welcome to the daily calorie tracker which makes it easy for you to calculate your daily calorie intake
Enter how many meals you had today?3
Enter the meal you ate:Apple
Enter the amount of calories it contains:52
Enter the meal you ate:Banana
Enter the amount of calories it contains:89
Enter the meal you ate:Orange
Enter the amount of calories it contains:47
meals list: ['Apple', 'Banana', 'Orange']
calories list: [52.0, 89.0, 47.0]
188.0
Enter the daily calorie limit:200
You are within you calorie goal
Meal Name       Calorie
----------------------
Apple           52.0
Banana          89.0
Orange          47.0
Total:           188.0
Average:         62.666666666666664
Do you want to save the report?yes
```

```
Daily Calorie Report
Date & Time: 2025-11-08 11:59:04.269518

Meal Name  Calorie
------------------------
Apple     52.0 calories
Banana    89.0 calories
Orange    47.0 calories

Total calories: 188.0
Average calories: 62.67
Status: You are within your calorie goal
```

Conclusion

This assignment successfully demonstrates the use of Python fundamentals, including lists, loops, conditionals, arithmetic operations, formatted output, and file handling.