AI Assisted Coding – Lab 4 Report

Name: Mohammad Muneer Ahmed
Roll No: 2303A51475

Task 1 — Leap Year Check (Zero-Shot)

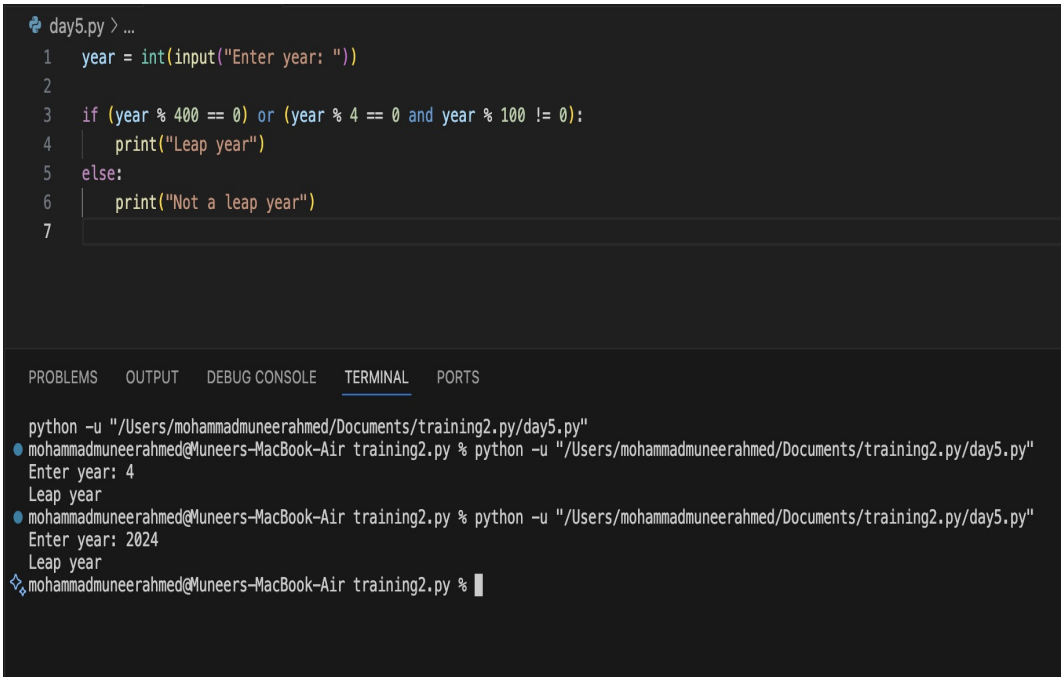
Question: Generate a Python program to check whether a year is a leap year.

Algorithm

1. Read year input.
2. Check if divisible by 400.
3. Else check divisible by 4 and not by 100.
4. Decide leap or not.
5. Print result.

Pseudocode

```
input year
if year % 400 == 0 OR (year % 4 == 0 AND year % 100 != 0)
    print Leap year
else
    print Not leap year
```



Task 2 — CM to Inches (One-Shot)

Question: Convert centimeters to inches using one example.

Algorithm

1. Read cm value.
2. Divide by 2.54.
3. Round result.
4. Print inches.

Pseudocode

```
input cm
inches = cm / 2.54
print inches
```

Task 3 — Name Formatting (Few-Shot)

Question: Format full name as Last, First.

Algorithm

1. Read full name.
2. Split into parts.
3. Extract first and last.
4. Print last, first.

Pseudocode

```
input name
parts = split(name)
first = parts[0]
last = parts[-1]
print last, first
```

Task 4 — Vowel Count Comparison

Question: Generate vowel count logic.

Algorithm

1. Read string.
2. Convert to lowercase.
3. Loop characters.
4. Count vowels.
5. Print total.

Pseudocode

```
input text
count = 0
for ch in text
    if ch in vowels
        count++
print count
```

Task 5 — File Line Count (Few-Shot)

Question: Read a text file and count lines.

Algorithm

1. Read filename.
2. Open file.
3. Read lines.
4. Count lines.
5. Print count.

Pseudocode

```
input filename
open file
lines = readlines
print len(lines)
```


day5.py > ...
full_name = input("Enter full name: ").strip()
parts = full_name.split()
if len(parts) >= 2:
first = parts[0]
last = parts[-1]
print(f"{last}, {first}")
else:
print("Invalid name")
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
python -u "/Users/mohammadmuneerahmed/Documents/training2.py/day5.py"
mohammadmuneerahmed@Muneers-MacBook-Air training2.py % python -u "/Users/mohammadmuneerahmed/Documents/training2.py/day5.py"
Enter full name: muneer ahmed
ahmed, muneer
mohammadmuneerahmed@Muneers-MacBook-Air training2.py %