AI Assisted Coding - Lab Test 1

Q1. Code Generation with Conditions (5M)

Prompt : Generate a python program that accepts a year as input and check whether it is a leap year or not using conditional statements
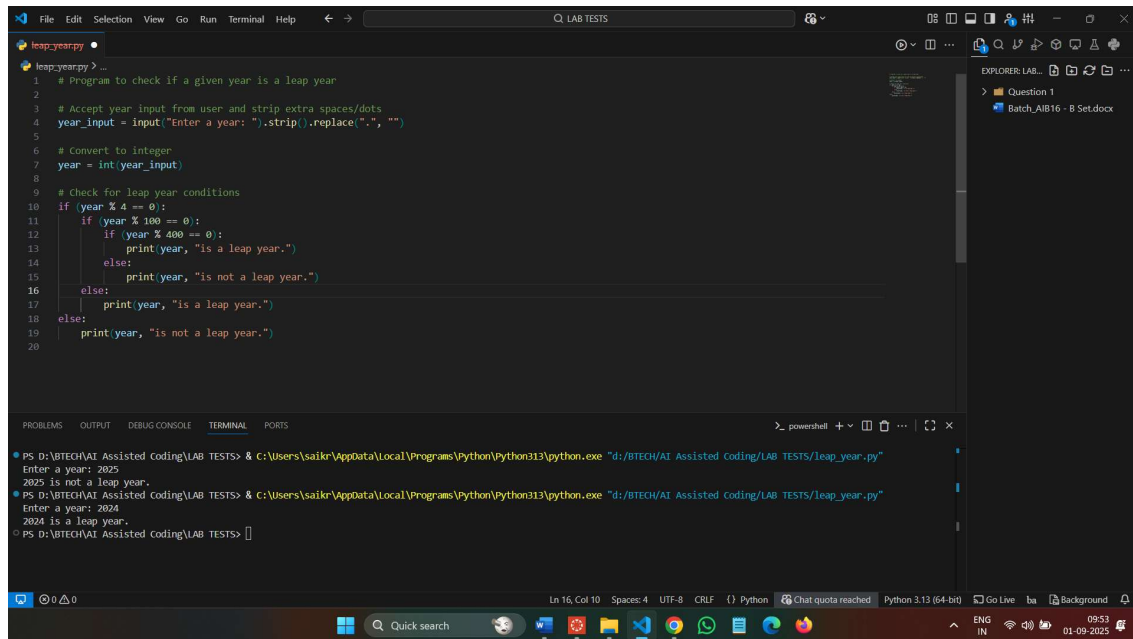
Code :

```python
# Accept year input from user and strip extra spaces/dots
year_input = input("Enter a year: ").strip().replace(".", "")

# Convert to integer
year = int(year_input)

# Check for leap year conditions
if (year % 4 == 0):
    if (year % 100 == 0):
        if (year % 400 == 0):
            print(year, "is a leap year.")
        else:
            print(year, "is not a leap year.")
    else:
        print(year, "is a leap year.")
else:
    print(year, "is not a leap year.")
```

Output :

Observation :

The program checks whether a given year is a leap year or not. A year is a leap year if it is divisible by 4, except years divisible by 100, unless they are also divisible by 400. The program takes a year as input and prints whether it is a leap year following these rules.