

Name: Pranjal Hedau

PRN: 25070521172

5.1.1] Leap Year Checker Program

Algorithm:

Step 1: Start the program.

Step 2: Input the year from the user.

Step 3: Check if $(\text{year} \% 400 == 0)$ OR $(\text{year} \% 4 == 0 \text{ AND } \text{year} \% 100 != 0)$.

Step 4: If the condition is true, print "Leap year".

Step 5: Otherwise, print "Not a leap year".

Step 6: End the program.

Code:

```
year = int(input())
```

```
if (year % 400 == 0) or (year % 4 == 0 and year % 100 != 0):
```

```
    print("Leap year")
```

```
else:
```

```
    print("Not a leap year")
```

Execution:

The screenshot displays the CODETANTRA online IDE interface. On the left, the problem description for "5.1.1. Leap Year Checker" is shown, including input and output formats. The code editor in the center contains the Python code for the leap year checker. The bottom right section shows the execution results, indicating that 2 out of 2 shown test cases and 2 out of 2 hidden test cases passed. The terminal output shows the expected and actual outputs for two test cases: 2024 and 2024, both resulting in "Leap year".

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5.1.1. Leap Year Checker

Write a Python program that prompts the user to enter a year. The program should determine if the year is a leap year or not and print the appropriate message.

Input Format:

- A single line contains an integer representing the year.

Output Format:

- Print "Leap year" if it is a leap year. Otherwise, print "Not a leap year".

Sample Test Cases

```
1 year = int(input())
2 if (year % 400 == 0) or (year % 4 == 0 and year % 100 != 0):
3     print("Leap year")
4 else:
5     print("Not a leap year")
6
7
```

Average time: 0.013 s
Maximum time: 0.019 s

2 out of 2 shown test case(s) passed
2 out of 2 hidden test case(s) passed

Test case 1 19 ms

Expected output: 2024
Actual output: 2024
Leap year

Test case 2 11 ms

Terminal Test cases

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Flowchart:

