

# EXPERIEMNT - 5

## 5.1.1 Leap Year Checker

### ALGORITHM

Step 1: Start the program.

Step 2: Input the year from the user.

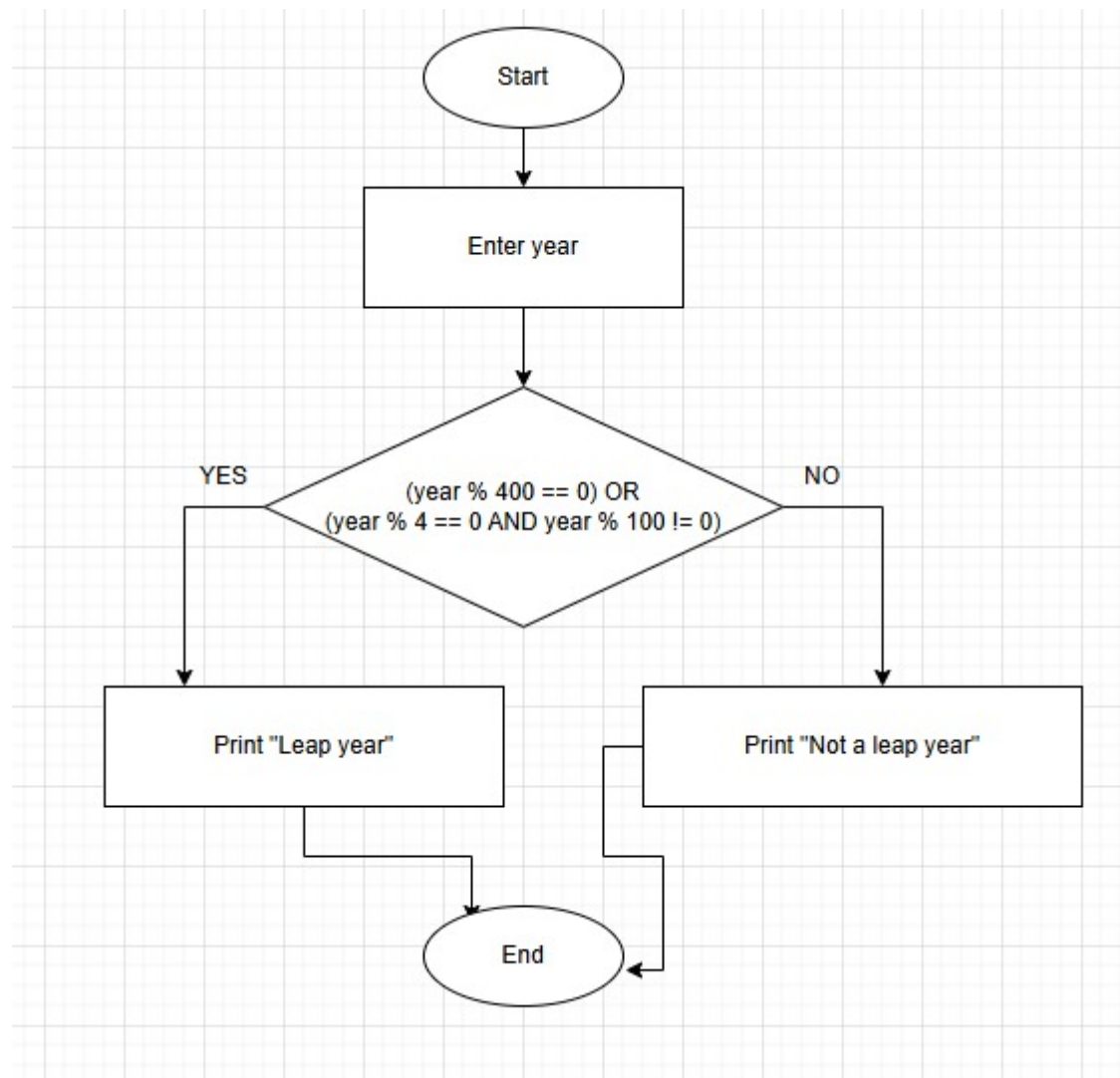
Step 3: Check if  $(\text{year} \% 400 == 0)$  OR  $(\text{year} \% 4 == 0 \text{ AND } \text{year} \% 100 != 0)$ .

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

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

Step 6: End the program.

### FLOWCHART



### PYTHON CODE

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

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

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

```
else:
```

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

## EXCECUTION

The screenshot displays the CodeTANTRA IDE interface. On the left, a panel titled "5.1.1. Leap Year Checker" provides instructions: "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." It also specifies the "Input Format" (a single line with an integer) and "Output Format" (print "Leap year" if it is a leap year, otherwise "Not a leap year"). Below this is a "Sample Test Cases" section.

The main editor shows a Python file named "leapYear.py" with the following code:

```
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")
```

Below the code editor, the execution results are shown. The "Average time" is 0.005 s (5.00 ms) and the "Maximum time" is 0.006 s (6.00 ms). The status indicates "2 out of 2 shown test case(s) passed" and "2 out of 2 hidden test case(s) passed".

Test case details for Test case 1:

Expected output	Actual output
2024	2024
Leap year	Leap year

Test case 2 is also marked as passed.

At the bottom, there are buttons for "Terminal", "Test cases", "Prev", "Reset", "Submit", and "Next".