

EXPERIEMNT - 5

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5.1.1] Leap Year Checker

ALGORITHM

Step 1: Start the program.

Step 2: Input the year from the user.

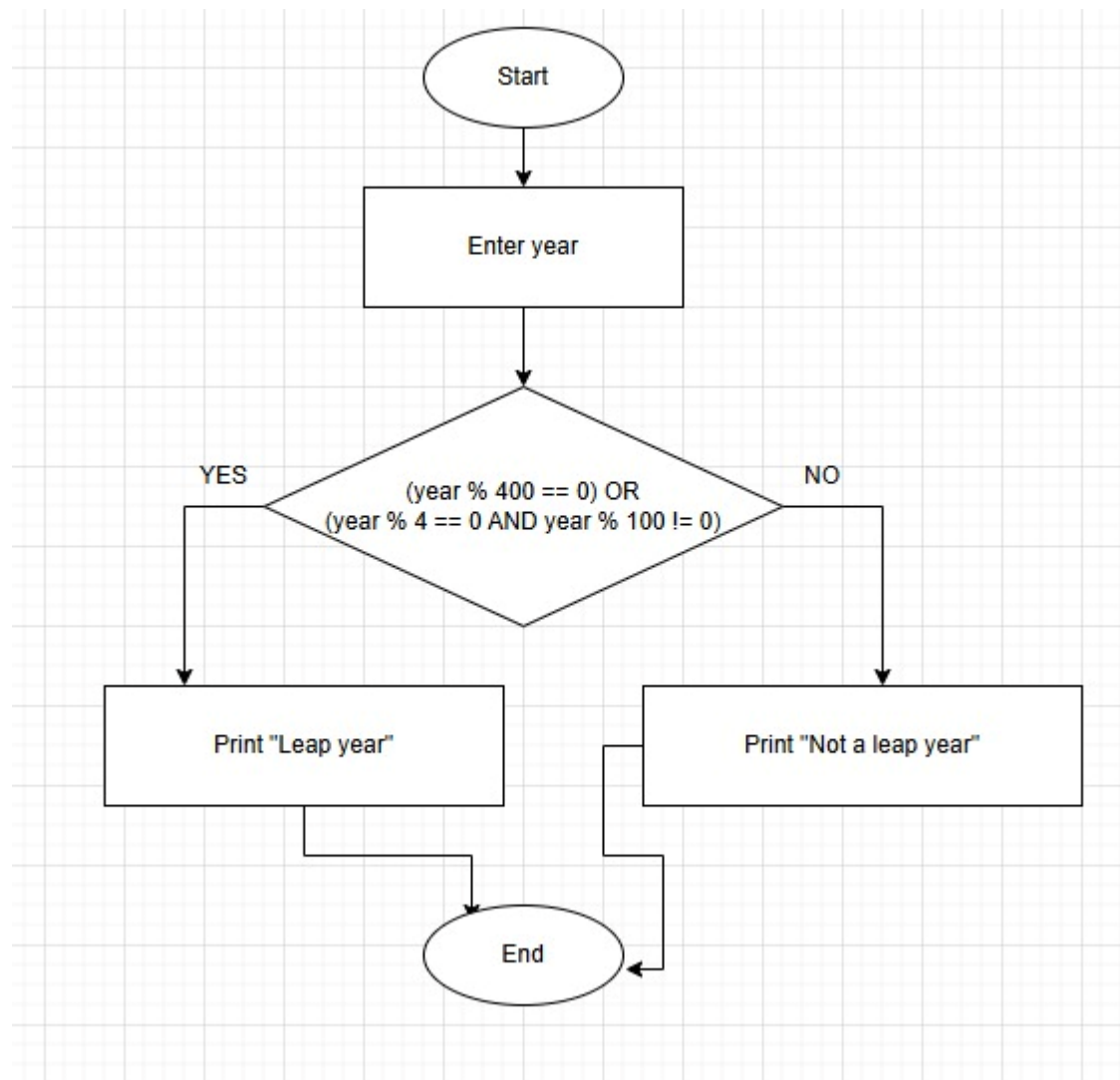
Step 3: Check if $(\text{year} \% 400 == 0)$ OR $(\text{year} \% 4 == 0 \text{ AND } \text{year} \% 100 != 0)$.

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

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

Step 6: End the program.

FLOWCHART



EXPERIEMNT - 5

PYTHON 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")
```

EXCECUTION

The screenshot displays the CodeTANTRA IDE interface for a problem titled "5.1.1. Leap Year Checker". The problem description states: "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." The input format is "A single line contains an integer representing the year." and the output format is "Print 'Leap year' if it is a leap year. Otherwise, print 'Not a leap year'." The code editor shows the following Python code:

```
1 year = int(input().strip())
2
3 if (year % 400 == 0) or (year % 4 == 0 and year % 100 != 0):
4     print("Leap year")
5 else:
6     print("Not a leap year")
7
8
```

The test results panel indicates that the program passed all tests: "2 out of 2 shown test case(s) passed" and "2 out of 2 hidden test case(s) passed". The average time for the test cases is 0.004 s, and the maximum time is 0.006 s. The test cases are as follows:

Test Case	Expected Output	Actual Output
Test case 1	2024	Leap year
Test case 2	2024	Leap year

The terminal shows the input "2024" and the output "Leap year". The interface also includes a "Sample Test Cases" section, a "Terminal" tab, and a "Test cases" tab.