

4. leapYear.py (30 points)

Write a program that asks the User to enter a year. The program should display the number of days in February that year. Use the following criteria to identify leap years

1. Determine whether the year is divisible by 100. If it is, then it is a leap year and if only if it is also divisible by 400. For example,
2000 is a leap year but 2100 is not
2. If the year is not divisible by 100, then it is a leap year and if only if it is also divisible by 4. For example,
208 is a leap year but 2009 is not.

Hints:

Prompt user to enter a year

Use nested if to verify the year is divisible by both 100 & 400

Determine if the leap year is 'True or False'

Use Else to verify if the year is divisible by 4 (if $\text{year} \% 4 == 0$)

Determine If the leap years is 'True or False'

Now use IF and Else to print if the year entered is a leap year or not.

Expected Output:

If entered 2008, the output should display: That is a leap year. February has 29 days.

If entered 2009, the output should display: That is not a leap year. February has 28 days.