Assignment#0

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leap year algorithm

The program takes a year as input. If the input is not a year and exception is thrown, an error message gets printed and the program terminats. Additionally if the year is smaller than 1582 an exception will be thrown. When the exception is caught, an error message is printed and the program terminates. If the year is not less than 1582 then the algorithm checks if the year is divisible by four. If not the IsLeapYear method returns false, the main method prints "nay" to the console and the program terminates. If the year is divisible by four, we check if the year is divisible by 100 and if it is not divisible by 400. If this statement returns true, the IsLeapYear method returns false, the main method prints "nay" and the program terminates. If the statement returns false then the method returns false and the main method prints "yay" indicating that the given year is a leap year.

A flow chart of the program can be seen on the next page.

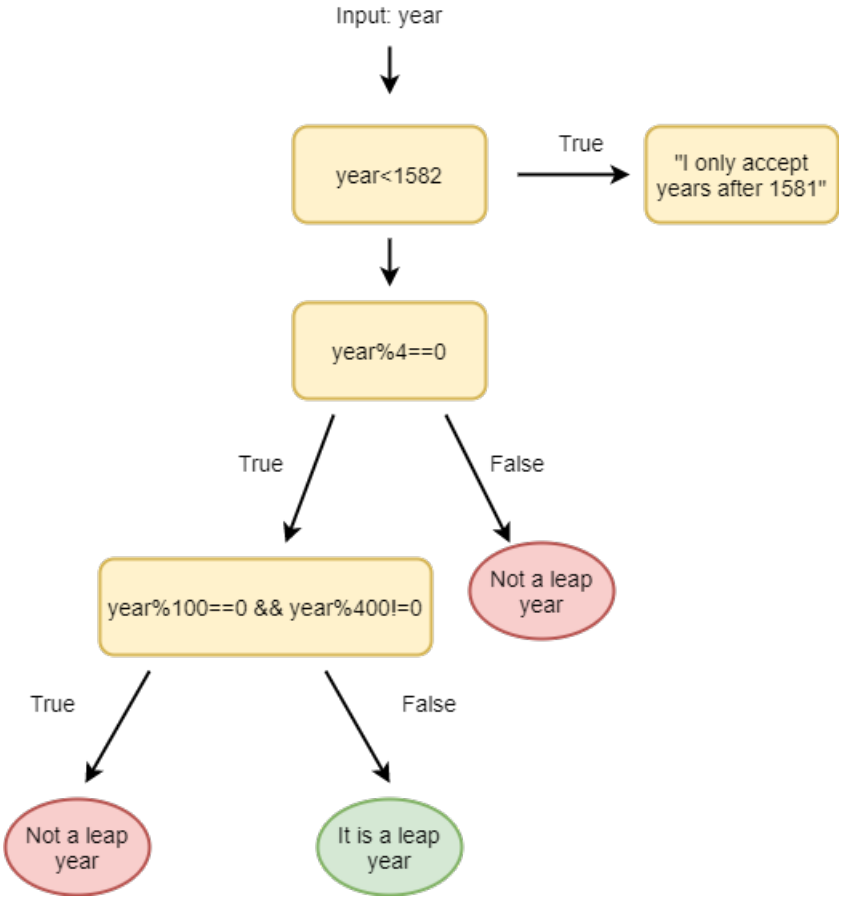

Figure 1: Flowchart for IsLeapYear()