IT-Universitetet i København

Analysis Design and Software Architecture

Assigment 00

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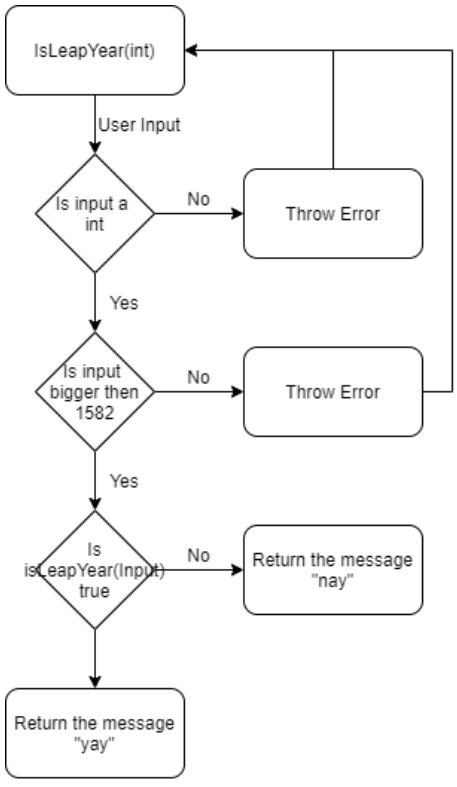
Leap Year Algorithm

The Leap Year algorithm is a fairly simple algorithm used to determine if a given year is a leap year or not. This can be done as every leap year is exactly divisible by four, except for years that are exactly divisible by 100 but these years every century can also be leap years if divisible by 400.

1 The function

The program does this by taking a user input and first checks whatever the input is a int or not If it's not, then it throws an error. If the input is an int, then it checks calls the *isLeapYear()*. *IsLeapYear* then first checks if the given year is higher then 1582 or not. If it's not the case, then the program throws and exception that tells you too pick another number, but if it's the case then it checks if the year is a leap year by the given criterias mentioned earlier. This is shown in **figure 1** below.



Figur 1: A flowchart over the isLeapYear() function.