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Pseudo code

Program name: Leap Year information

Program Description: This program prompts the user for a year larger than 1582, if it is a leap year displays the day of the week which represents the 29th of feb of that year and also displays the next leap year which has a same weekday on 29th of february.

Define terms

0.1 define year as the year entered by user

0.2 define action as the response from user

START

1. Do while action is equals to yes

1.1. Year \leftarrow users input

1.2. If verifyYear is true then

1.2.1 If leapYear(year) is true then

1.2.1.1 dayOfWeek \leftarrow zeller(29,2,year)

1.2.1.2 S.O.P("Feb 29 " + year + " is on " + weekDay(dayOfWeek))

1.2.1.3 year \leftarrow nextyearCalc(29 ,2 ,dayOfWeek , year)

1.2.1.4 dayOfWeeknext \leftarrow zeller(29 ,2 ,year)

1.2.1.5 S.O.P("The next leap year where Feb 29 is on " + weekDay(dayOfWeekNext) + " year " + year)

1.2.2else

1.2.2.1 S.O.P ("year " + year + " is not a leap year")

1.3 S.O.P("Do you want to repeat the program:")

1.4 action \leftarrow users next line entry

END

Methods Description:

VerifyYear(): Verify that the year entered by the user is valid which is greater than 1582.

leapYear(): Finds out if the year entered is a leap based on the formula given.

Zeller(): Finds out what is the zellers value of given date, represents a day of week

weekDay(): prints out the day of the week that each zeller represents

nextYearCalc: Finds the next leap year which has the same zellers value on given date