Package ‘jalcal’  
September 7, 2021

Type Package  
Title Conversion Between Jalali (Persian or Solar Hijri) and Gregorian Calendar Dates  
Description Jalali, also known as Persian, Solar Hijri and Hijri Shamsi calendar is the official calendar of Iran and Afghanistan. It begins on Nowruz, the March equinox, as determined by astronomical calculation and has years of 365 or 366 days. Adapting the algorithms in <https://jdf.scr.ir/>, this package provides tools for converting the Jalali and Gregorian dates.

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**Description**
Convert Gregorian calendar date to Jalali calendar date

**Usage**
greg2jal(date)

**Arguments**
date An object of class Date specifying Gregorian date

**Value**
An integer vector consisting of the corresponding Jalali year, month and day

**Author(s)**
Abdollah Jalilian

**Examples**
greg2jal(base::Sys.Date())

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**Description**
Convert Gregorian calendar date to Jalali calendar date

**Usage**
greg2jal0(year, month, day)

**Arguments**
year An integer specifying Gregorian year
month An integer specifying Gregorian month
day An integer specifying Gregorian day
isLeap

Value
An integer vector consisting of the corresponding Jalali year, month and day

Author(s)
Abdollah Jalilian

Examples
greg2jal0(622, 3, 21)
greg2jal0(1983, 9, 8)

Description
Determining whether a given year is leap year

Usage
isLeap(year, cal = "Gregorian")

Arguments
year An integer vector specifying given years
cal A character string specifying the calender type. Only 'Gregorian' and 'Jalali' are implemented

Value
A logical vector of of the same length as year which indicates whether given years are leap years or not

Author(s)
Abdollah Jalilian

Examples
isLeap(1362, 'Jalali')
isLeap(c(2000, 2100))
jal2greg

Convert Jalali calendar date to Gregorian calendar date

Usage
jal2greg(year, month, day, asDate = TRUE)

Arguments
year An integer specifying Jalali year
month An integer specifying Jalali month
day An integer specifying Jalali day
asDate A logical flag indicating whether the output Gregorian date must be in date format

Value
If asDate = TRUE, the default case, an object of the Date class in R, otherwise an integer vector consisting of the Gregorian year, month and day

Author(s)
Abdollah Jalilian

Examples
jal2greg(1, 1, 1)
jal2greg(1362, 6, 17)
jal2greg(1362, 6, 17, asDate=FALSE)
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