Python Final Project

Date Converter Library

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- **Write all the mentioned functions in the form of a python calendar library that converts dates! (Gregorian (میلادی), Hijri(قمری) and Jalali(شمسی))**

Points:

- **After you finish writing the library, put it on *https://pypi.org/* so that it can be installed with *pip install your_calendar_lib* *(otherwise, your mark will be ZERO)***

- **Be sure about exception handling in your code! (empty input, input with different datatype, zero division, different number of input argument, ...)**

- **How to name your library:**
  The first two letters of your last name + The first two letters of your FirstName + 'date'+ 'converter'
  Example: First Name: Elnaz, Last Name: Ghanbari, library name: elghdateconverter
  ***If the library name exists in the https://pypi.org/, add a random two-digit number to the end of it. library name: elghdateconverter12**

- **Name of functions and number of inputs have to be same as mentioned functions, exactly!**

- **Methods and Functions:**

1. your_calendar_lib.hijri(Year, Month, day).hijri_to_gregorian()

Description: This function converts Hijri date to Gregorian date !

Example:
your_calendar_lib.hijri(1444, 08, 07).hijri_to_gregorian()
out: (2023,02 ,28) #Gregorian,output type: tuple!

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2. your_calendar_lib.gregorian(Year, Month, day).gregorian_to_hijri()

Description: This function converts Gregorian date to Hijri date !

Example:
your_calendar_lib.gregorian(2023,02 ,28).gregorian_to_hijri()
out: (1444, 08 , 07) #Hijri,output type: tuple!

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3. your_calendar_lib.jalali(Year, Month, day).jalali_to_hijri()

Description: This function converts Jalali date to Hijri date !

Example:
your_calendar_lib.jalali(1401, 12, 09).jalali_to_hijri()
out: (1444, 08, 07) #Hijri,output type: tuple!

- **Methods and Functions:**

4. your_calendar_lib.hijri(Year, Month, day).hijri_to_jalali()

Description: This function converts Hijri date to Jalali date !

Example:
your_calendar_lib.hijri(1444, 08, 07).hijri_to_jalali()
out: (1401, 12, 09) #Jalali,output type: tuple!

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5. your_calendar_lib.gregorian(Year, Month, day).gregorian_to_jalali()

Description: This function converts Gregorian date to Jalali date !

Example:
your_calendar_lib.gregorian(2023-02-28).gregorian_to_jalali()
out: (1401,12,09) #Jalali,output type: tuple!

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6. your_calendar_lib.jalali(Year, Month, day).jalali_to_gregorian()

Description: This function converts Jalali date to Gregorian date !

Example:
your_calendar_lib.jalali(1401,12,09).jalali_to_gregorian()
out: (2023-02-28) #Gregorian,output type: tuple!

- **Methods and Functions:**

7. your_calendar_lib.gregorian.now()

Description: This function shows current time in gregorian!

Example:
your_calendar_lib.gregorian.now()
out: (2023,02 ,28) #Gregorian,output type: tuple!

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8. your_calendar_lib.jalali.now()

Description: This function shows current time in jalali!

Example:
your_calendar_lib.jalali.now()
out: (1401,12 ,12) #Jalali,output type: tuple!

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9. your_calendar_lib.hijri.now()

Description: This function shows current time in hijri!

Example:
your_calendar_lib.hijri.now()
out: (1444,08 ,10) #hijri,output type: tuple!

- **Methods and Functions:**

10. your_calendar_lib.gregorian(year, month, day).weekday()

Description: This function shows the week day

Example:
your_calendar_lib.gregorian(2023, 02 , 28).weekday()
out: Tuesday #output type: String

11. your_calendar_lib.jalali(year, month, day).weekday()

Description: This function shows the week day

Example:
your_calendar_lib.jalali(1401, 12 , 09).weekday()
out: Tuesday #output type: String

12. your_calendar_lib.hijri(year, month, day).weekday()

Description: This function shows the week day

Example:
your_calendar_lib.hijri(1444, 12 , 09).weekday()
out: Tuesday #output type: String

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- **Methods and Functions:**

13. your_calendar_lib.gregorian(year, month, day).elapsedtime()

Description: This function shows elapsed time from input date until now!

Example:
your_calendar_lib.gregorian(2022, 02, 05).elapsedtime()
out: (1, 7, 7) #(year, month, day) ,output type: tuple!

14. your_calendar_lib.jalali(year, month, day).elapsedtime()

Description: This function shows elapsed time from input date until now

Example:
your_calendar_lib.jalali(1400, 02, 05).elapsedtime()
out: (1, 7, 7) #(year, month, day) ,output type: tuple!

15. your_calendar_lib.hijri(year, month, day).elapsedtime()

Description: This function shows elapsed time from input date until now

Example:
your_calendar_lib.hijri(1444, 02, 05).elapsedtime()
out: (1, 7, 7) #(year, month, day) ,output type: tuple!

FINALLY:

- **WRITE HOW TO INSTALL YOUR LIBRARY IN THE *TXT* FILE AND ZIP IT ALONG WITH YOUR CODES AND UPLOAD IT TO THE ANSWER GATE!**

EXCEPT WHAT IS SAID IN THE TEXT OF THE PROJECT,

EVERY TYPE, EVERY SOLUTION, EVERY METHOD, EVERY FUNCTION,

EVERY COMMAND AND EVERY STRUCTURE IS ALLOWED!