CME 1211 Algorithms and Programming I
Homework 1

Upload your source code file from *DEUZEM SAKAI* until **November 14, 2021, 23:55.**

Upload only a single *.cs file.
The name of the file: **number_name_surname.cs**
For example: 2019510028_ali_yildirim.cs

Calendar

Write a C# program that takes the followings from the user separately:
- two dates (day, month, and year) later than 01.01.2015
- a positive number (*n*)

and then prints each *n*th day between given dates.

The program must also print the day of the week (i.e., Monday) and the season (Winter, Spring, Summer, or Autumn).

The first date can be before or after the second date.

The program should control all possible invalid user inputs and give an approriate error message.

Examples:

```
Inputs: day = 31            Inputs: day =  -2            Inputs: day = 29
        month = ApriL               month = programming          month = february
        year = 2021                 year = 2021                  year = 2017

Output: day is wrong        Output: day is wrong         Output: day is wrong
                                    month is wrong
```

The program may use one of the following methods to determine the day of the week:
- Zeller's algorithm
- Gauss's algorithm
- Tomohiko Sakamoto's algorithm
- Schwerdtfeger's method
- or others
https://en.wikipedia.org/wiki/Determination_of_the_day_of_the_week

Don't use any *Date* related command, library, and data type such as *DayOfWeek()*, *AddDays()*, *DateTime*, etc.

Don't use "*array*" data structure.

If you want, you may write your own "*procedure(s) and/or function(s)*".

This homework will be graded by Res.Asst. Elife ÖZTÜRK KIYAK.
You can ask your questions to her from the "**FORUM → Homework 1 - Questions**" part of the *DEUZEM SAKAI* software.

```
Example:                                    Example:
Inputs: D1=10  M1=MAY        Y1=2019         Inputs: D1=17  M1=november  Y1=2021
        D2=18  M2=January    Y2=2020                 D2=10  M2=October   Y2=2021
        n = 10                                      n = 3
Output:                                     Output:
 Spring                                      Autumn
 10 May 2019 Friday                          10 October 2021 Sunday
 20 May 2019 Monday                          13 October 2021 Wednesday
 30 May 2019 Thursday                        16 October 2021 Saturday
                                             19 October 2021 Tuesday
 Summer                                      22 October 2021 Friday
 9 June 2019 Sunday                          25 October 2021 Monday
 19 June 2019 Wednesday                      28 October 2021 Thursday
 29 June 2019 Saturday                       31 October 2021 Sunday
 9 July 2019 Tuesday                         3 November 2021 Wednesday
 19 July 2019 Friday                         6 November 2021 Saturday
 29 July 2019 Monday                         9 November 2021 Tuesday
 8 August 2019 Thursday                      12 November 2021 Friday
 18 August 2019 Sunday                       15 November 2021 Monday
 28 August 2019 Wednesday
```

```
Autumn
 7 September 2019 Saturday
17 September 2019 Tuesday
27 September 2019 Friday
 7 October 2019 Monday
17 October 2019 Thursday
27 October 2019 Sunday
 6 November 2019 Wednesday
16 November 2019 Saturday
26 November 2019 Tuesday

Winter
 6 December 2019 Friday
16 December 2019 Monday
26 December 2019 Thursday
 7 January 2020 Tuesday
17 January 2020 Friday
```

Notes:

1. Your program must work correctly under all conditions. Try to control all possible errors.

2. You should use meaningful variable names, appropriate comments, and good prompting messages.

3. If you are late, your grade will be decreased 10 points for each day.
   After five days, your assignment will not be accepted.

4. Assignment must be your individual work.
   Cheating is strictly prohibited.
   If any cheating occurs, your assignment will be graded with **zero (0)**.
   A software will be used to automatically detect the similarities between students' source-codes.