



MALMÖ HÖGSKOLA

Malmö University

Programming Using C#, Basic Course

Days of the month

Exercise – Selection, iteration and
methods

Optional, not to be submitted!

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Number of days in a month

1. Description

Write a program that calculates the number of days in a given month between the years 1900 to 3000. The month is given by the user as an integer between 1 (Jan) to 12 (Dec) for the number of days to be calculated, or a zero to exit. Year is need to determine if it is a leaper in which case there are 29 days in February. The user input must be controlled so that it is within the proper ranges.

2. Requirements

- 2.1 The application must have at least two classes,
 - 2.1.1 a class **Month** containing as many methods as you may think of.
 - 2.1.2 a starter class, **MonthsProgram**, containing a method Main to test the above.

```

C:\The.MD\CodeExamples\DaysInMonthAppes\bin\Debug\DaysInMonth
Write your favorite month, 1 to 12 or 0 to terminate: 2
Which year? 2012

***** THE RESULTS *****
Number of days for 2 in 2012is: 29.
*****

Write your favorite month, 1 to 12 or 0 to terminate: 2
Which year? 1995

***** THE RESULTS *****
Number of days for 2 in 1995is: 28.
*****

Write your favorite month, 1 to 12 or 0 to terminate: 13
Not a good one. Try again buddy!
Write your favorite month, 1 to 12 or 0 to terminate: _
  
```

3. Guidance

Below is the class definition and a number of suggested methods with related comments for the class Month.

CLASS

```

// Month.cs
// Created:    by Mr.X, date
// Revised:    by Mr Y, date and a short description
// Purpose:    This class gives exercise in local variables, methods with
//             and without parameters, iterations with for and while,
//             and conditinoal statemetn with both switch and if-else.

// Assumptions: No skills in Properties, constructors, arrays
public class Month
  
```

METHODS

The comments related the method definition that follows, before the separator line

```
/// <summary>
/// Calculates the number of days in a given month,for a given year.
/// </summary>
/// <param name="month">Input - a given month.</param>
/// <param name="year">Input - a given year.</param>
/// <returns>The number of days for the given month and year.</returns>
/// <remarks></remarks>
public int CalculateDays(int month, int year)
```

```
/// <summary>
/// Read an integer value from the console.
/// </summary>
/// <param name="messageToUser">Information given to user.</param>
/// <param name="min">The value should be >= min.</param>
/// <param name="max">The value should be less than or equal to
max.</param>
/// <returns>The integer value read from the console.</returns>
/// <remarks></remarks>
```

```
private int ReadAnIntegerValue(string messageToUser, int min, int max)
```

```
/// <summary>
/// Calculates the number of days in a given month,for a given year.
/// </summary>
/// <param name="month">Input - a given month.</param>
/// <param name="year">Input - a given year.</param>
/// <returns>The number of days for the given month and year.</returns>
/// <remarks></remarks>
public int CalculateDays(int month, int year)
```

//Use a switch statement here

```
/// <summary>
/// Draw a line with count characters using the given character
/// </summary>
/// <param name="symbol">The character to write the line with.</param>
/// <param name="count">The number of the times</param>
/// <param name="newLine">If the cursor is to be moved to next line.</param>
/// <remarks></remarks>
```

```
public void PadLineWithChar(char symbol, int count, bool newLine)
```

```
/// <summary>
/// Overloaded method calling PadLinewithChar that has 3 parameter'''
/// </summary>
/// </summary>
/// <param name="symbol">The character to write the line with.</param>
/// <param name="count">The number of the times</param>
/// <remarks>Newline is set to true by default.</remarks>
```

```
public void PadLineWithChar(char symbol, int count)
```

Good Luck!

Programming is fun. Don't give up. Ask for help!, Farid Naisan, Course Coordinator and Instructor