



C# BASICS

Training Assignments


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RECORD OF CHANGES

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Day 2: Assignment 7: DateTime

Objectives:

- » Understand and practice DateTime of C#.
- » Use formats DateTime and Convert DateTime

Business needs:

- » TBD

Prerequisites:

- » Working environment: Visual Studio 2013 or higher.Practice code in Visual Studio
- » Each exercise is one project inside 1 solution.

Technologies:

The product implements one or more technology:

- » DateTime data type

IO:

- » Console windows

1. Exercise 1: Caculate datetime values**Function Requirement:**

A system A allows employees to submit payment invoices, to post to the browser manager. Every time the employee submits the invoice, a record of the invoice is created in the database. To remind you to manage the invoice approval, the system has the following reminder and operation functions:

- If the record has been submitted 7 days earlier, but has not approved the record, send a reminder notice for the first time.
- If prompted for the first time, but the manager has not approved then after 2 days, reminded the second time.
- If the second reminder, but the manager still hasn't approved, then send a reminder email every 3 days, 4 times, 5 times.
- Only send up to 5 reminders.

Software requirements:

Write the console application to make the request as follows:

Input: Allows users to enter 1 day in the format: date / month / year.

Output: Print all dates that will send a reminder notice:

Example: Enter date is 08/01/2019, Print out the day:

1st reminder: 15/01/2019

2nd reminder: 17/01/2019

3rd reminder: 18/01/2019

4th reminder: 19/01/2019

5th reminder: 20/01/2019

Technical requirements:

- write on console application console application, comply with Fsoft coding conventions
- Check input data according to date / month / year format. Display format error if entered incorrectly

Expand the problem:

In case of day, only working days (from Monday to Friday, excluding Saturday and Sunday). That is, after 7 working days, send a reminder notice for the first time ...

Example: Enter date is 08/01/2019, Print out the day:

1st reminder: 17/01/2019

2nd reminder: 21/01/2019

3rd reminder: 22/01/2019

4th reminder: 23/01/2019

5th reminder: 24/01/2019

Estimated time: 60 mins

2. Exercise 2: Finance Year

Function Requirement:

Finance Year is a concept used in finance. 01 / Apr every year, counted as the first day of the year. The fiscal year lasts from 01 / Apr of the previous year, to the end of 31 / Mar of the next year.

Example: finance year (FY2018) is calculated from 01/Apr/2018 to 31/Mar/2019.

Invoice numbers, contracts ... are usually based on the fiscal year to generate automatically in order. And automatically reset to 0001 on 01 / Apr.

A system B generates an automatic code for invoices according to the following rules:

Code Bill = "<AAA>FY<year><DDDDD>"

Inside:

<AAA> are 3 capital letters, representing unit code. Example: FSO

FY are 2 fixed characters, short for Financial Year

<yyyy> is finance year

<dddd> is 5 digits, the order of birth in that fiscal year. Example: 00023

Software requirements:

Write the console application to make the request as follows:

Input: Allows users to enter information:

- Start date: 1 day in the format: day / month / year. Check the date / month / year format
- Department name: requires checking 3-letter format. If it is a lower case, then convert it to a capital letter
- Number of invoices in 1 day: is the natural number.
- Number of days to print invoice: is the natural number

Output: print out the invoice code of <print invoice date> consecutively

Example: Enter

StartDate: 29/03/2018

DepartmentName: FSO

Invoice number in 1 day: 3

Number of days to print the invoice: 5

Screen:

Invoice Date 29/03/2018: FSOFY201700001, FSOFY201700002, FSOFY201700003.

Invoice Date 30/03/2018: FSOFY201700004, FSOFY201700005, FSOFY201700006

Invoice Date 31/03/2018 : FSOFY201700007, FSOFY201700008, FSOFY201700009

Invoice Date 01/04/2018 : FSOFY201800001, FSOFY201800002, FSOFY201800003

Invoice Date 02/04/2018: FSOFY201800004, FSOFY201800005, FSOFY201800006

Technical requirements:

- write on console application console application, comply with Fsoft coding conventions
- Check input data according to date / month / year format. Display format error if entered incorrectly

Estimated time: 60 mins

3. Exercise 3: Convert Datetime**Function Requirement:**

Input data is a multi-line piece of text, each line is an information about creating and editing records:

Example:

“Created at 28/02/2018 10:15:35 AM by Andy.

Updated at 03/03/2018 02:45:10 PM by Mark

Clear name at 02/03/2018 11:34:05 AM by Andy”

Include information:

Include informationThe update time is one of the formats: dd / MM / yyyy or dd / MM / yyyy hh: mm: ss tt or dd / MMM / yyyy

Lines are not saved in the correct order in time. Therefore, it is necessary to standardize by, rearranging the lines in the right order of increasing time.

Software requirements:

Students write the console application to make the request as follows:

Input: Allows the user to enter multiple lines of text, press Ctrl + Enter to finish typing.

Output: Standardize by, rearranging lines in the right order of increasing time.

Technical requirements:

- write on console application console application, comply with Fsoft coding conventions

Estimated time: 60 mins