Assignment 6: Invoice Maker
More WPF

1   Objectives

The main objectives of this assignment are:

- To train more with the Windows Presentation (WPF) Platform

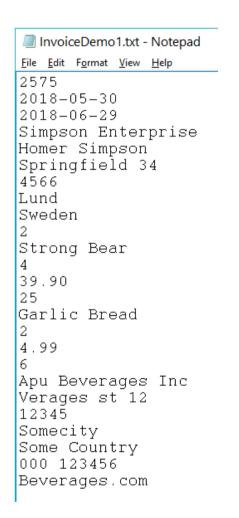- To work with text files

2   Description

We have covered by now all topics listed in the course plan. This assignment is intended to give an extra opportunity to exercise more with WPF and its features. In addition, you are given a chance to design the solution by yourself. Apart from the mandatory implementation of WPF and text files, you are free to utilize all your skills in OOP and the subjects we have discussed in this course.

3   To Do

Write a WPF application that should serve as a standard invoice template. All data you need to complete the invoice is to be loaded to the program by importing the data from a given text file. The sample invoice below (right image) shows the data imported from above demo text file (image at left). The invoice shown here is given only as an example and it is not a WPF image. You do not have to design you GUI exactly the same way. Use your own fantasy and try some more advanced WPF components.

InvoiceDemo1.txt - Notepad

File Edit Format View Help

```
2575
2018-05-30
2018-06-29
Simpson Enterprise
Homer Simpson
Springfield 34
4566
Lund
Sweden
2
Strong Bear
4
39.90
25
Garlic Bread
2
4.99
6
Apu Beverages Inc
Verages st 12
12345
Somecity
Some Country
000 123456
Beverages.com
```

Place for logo

Apu Beverages Inc

Invoice Number	2575

Invoice date	2018-05-30
Due date	2018-06-29

Simpson Enterprise
Homer Simpson
High Stree 12
226 47 Lund
Sweden

Item	Description	Quantity	Unit price	Tax (%)	Total Tax	Total
1	Strong Bear	5	39.9	25	49.88	249.38
2	Garlic Bread	2	4.99	6	0.60	10.58
	Total				50.47	259.95

Discount/Voucher	0.00
Amount to pay	**259.95**

Address	Phone	Home page
Verages st 12	000 123456	Beverages.com
12345 Somecity		

The data file is generated by another application and contains data with one value per line in the following order:

Invoice number
Invoice date
Due date
Company to which the invoice is to be sent
Name of a person to be addressed to
Street address
Zipcode
City
Country
Number of items
Description for Item 1 (not more than one row)
Quantity of Item 1
Unit price for Item 1
Tax in % for Item 1
Description for Item 2 (not more than one row)
Quantity of Item 2
Unit price for Item 2
Tax in % for Item 2
<Same for all items >
Name of the Company (sender of invoice)
Street
Zip code
City
Country
Phone number
Home page URL

For every invoice, all of the above items will be given in the file. The only thing that may differ will be the number of items.

A demo text file accompanying the assignment may look like the image given on the previous page.

What you have to do is summarized below.

3.1   Design a WPF user interface that can imports the data according to the above specifications from a text file and presents and draws an invoice to the screen.

3.2   The application should show also calculate and show the total amount to pay and the amount of tax included for each item as in the example below.

3.3   The application should calculate and show the grand total amount to pay.

3.4   It should be possible for the user to enter a discount amount.

3.5   Decide by yourself which data could be changed by the user after the import of text file. However, the dates must be editable.

3.6   The application should allow the user to load an image file as its logo.

3.7   Provide a fictitious customer address with other text than "Street", "City", etc.

Note: You should bring changes to the text file so it looks like a real invoice. You may use another form of data arrangement, e.g. tab delimited text files. In this case, you should include a demo text file with your project.

4   Requirements for a passing grade (G)

4.1   A WPF application.

4.2   Import of a text file as described in above.

4.3   Good OOP, code comments and project organization.

5   Requirements for a pass with distinction Grade (VG)

The following items are required only for a higher grade, VG (in addition to the above requirements). You can skip this section, if you aim only at a passing grade G.

5.1   Add a print feature so the application prints out the invoice using the print dialog and the available printers. Use MSDN or other resources on the Internet (as a good practice for your future work).

5.2   You can choose to implement on of the following methods:

5.2.1   Print the invoice in some simple way using only text.

5.2.2   Convert the invoice to an image and print out the image.

5.2.3   Use graphics and draw a 2d drawing of the whole thing. Draw lines and "draw text" (a challenge).

5.2.4   Use any other method that you may find interesting or good practice.

6   Submission

Upload your project to It's Learning as before.

7   Help

Your textbook, MSDN and the whole internet are all at your disposal.

Good Luck!

Farid Naisan, Course

Responsible and Instructor