Final Assignment

version 20.07.23

Introduction

This assignment is the final part of the training. It is meant as a challenge to use the gathered knowledge from this course and add some inventiveness to create a WPF application by yourself. This time you may pick a topic of your choice for the application and data. It could be about your coins or stamps collection, soccer team formations, famous art throughout history, you name it…

Requirements

The following topics are expected to be present in your application:

- Set up a Create, Read, Update and Delete scenario for (at least) one entity class
- Follow the MVVM pattern using WPF, so include:
  - Models, Views and ViewModels 😊
  - DataBinding
  - INotifyPropertyChanged in a reusable way (via a base class)
  - ICommand in a reusable way (via Relay/DelegateCommand class)
  - Validation of user input
- Create a programming interface for a repository to be implemented in (at least) two ways:
  - a fake repository (working against a hard-coded data collection)
  - a real repository (working against a SQL Server database, using an ADO.NET implementation of choice)
    💡 The learning materials about SQL Server and the ADO.NET implementations are explained in lesson 9
- Use some Brushes and Styling stored in Resources
- Create and use a Control Template (for some special button perhaps)

Bonus

- Usage of Sample Data while in the XAML Designer
- Add a Unit Test project to the solution with some tests targeting the ViewModel(s)

In case you use (parts of) different *frameworks/add-ons* or other *techniques* not discussed during class time, please explain in comments or in a separate text why and how.

Inspiration and Examples

All demos have been made available at https://dev.azure.com/MrcCSharpCourse/ via project *JeroenHartsuikersExamples* under folder *Repos*.

For a working example of Create, Read and Update the MVVM way see solution *NorthwindTradersMVVM* and the belonging *PDF* via https://dotnetjes.wordpress.com/category/training/ under 🕶 NorthwindTradersMVVM.

Final Date and Delivery Method

This homework assignment is due Tuesday September 1st 2020 at 09:00 (AM) Central European Summer Time (CEST).

Preferred delivery method is through our Azure DevOps project portal at https://dev.azure.com/MrcCSharpCourse/

Please also send me an email (jeroen@globaltraining.nl) after your project has been submitted. An alternative in case of technical difficulties regarding Azure DevOps is to email/*wetransfer* the complete (*zipped*) solution to me.

I will review your submission and you will receive feedback per e-mail. If your entry shows sufficient commitment and skills, you will receive the course certificate.

Good luck and have fun..!

Jeroen