## Assessment One

1.0

Generated by Doxygen 1.7.2

Mon Oct 18 2010 00:00:28

## **Contents**

| 1 | Name<br>1.1  | espace Ir<br>Packag |            |                                      | . 1        |
|---|--------------|---------------------|------------|--------------------------------------|------------|
| 2 | Class<br>2.1 | Index<br>Class F    | Hierarchy  |                                      | . 3        |
| 3 | Class<br>3.1 | Index<br>Class L    | .ist       |                                      | 5<br>. 5   |
| 4 | Name         |                     | Ocumenta   | tion ionLogic.Interfaces             | . 7<br>. 7 |
|   | 4.2          |                     |            | ionLogic.Model                       |            |
|   |              |                     |            |                                      |            |
|   | 4.3          | _                   |            | ionLogic.Presenter                   |            |
|   | 4.4          | _                   |            | ment_One                             |            |
|   | 4.5          | •                   |            | ment_One.Properties                  |            |
|   | 4.6          | Packag              | e Nonit_16 | ests.ApplicationLogic                | . 9        |
| 5 | Class        | Docum               | entation   |                                      | 11         |
| • | 5.1          |                     |            | Model.AppDataManager Class Reference |            |
|   | 5.1          | 5.1.1               | •          | Description                          |            |
|   |              | 5.1.2               |            | Function Documentation               |            |
|   |              | 5.1.2               | 5.1.2.1    | CreateNewBankAccount                 |            |
|   |              |                     | 5.1.2.1    | CreateNewStockItem                   |            |
|   |              |                     | 5.1.2.2    |                                      |            |
|   |              |                     |            | DeleteBankAccount                    |            |
|   |              |                     | 5.1.2.4    | DeleteStockItem                      | . 12       |
|   | - 0          | A!!                 | 5.1.2.5    | OrderItem                            | . 13       |
|   | 5.2          |                     |            | Model.BankAccount Class Reference    |            |
|   |              | 5.2.1               |            | Description                          |            |
|   |              | 5.2.2               |            | tor & Destructor Documentation       |            |
|   |              |                     | 5.2.2.1    | BankAccount                          |            |
|   |              |                     | 5.2.2.2    | BankAccount                          | _          |
|   |              | 5.2.3               |            | Function Documentation               |            |
|   |              |                     | 5.2.3.1    | CsvRepresentation                    |            |
|   |              |                     | 5.2.3.2    | Deposit                              | . 15       |
|   |              |                     | 5.2.3.3    | ParseFromString                      | . 15       |
|   |              |                     | 5.2.3.4    | Transfer                             | . 16       |
|   |              |                     | 5.2.3.5    | Withdraw                             |            |
|   |              | 5.2.4               | Property   | Documentation                        | . 16       |
|   |              |                     | 5.2.4.1    | AccountNumber                        | . 16       |
|   |              |                     | 5242       | Palanco                              | 16         |

ii CONTENTS

|      | 5.2.4.3 Surname   |      |
|------|---|------|
| 5.3  | NUnit_Tests.ApplicationLogic.BankAccountTest Class Reference                            |      |
|      | 5.3.1 Detailed Description  |      |
| 5.4  | ${\bf Application Logic. Presenter. Congregate Presenter\ Class\ Reference}  .  .$      |      |
|      | 5.4.1 Detailed Description  | . 19 |
|      | 5.4.2 Constructor & Destructor Documentation  |      |
|      | 5.4.2.1 CongregatePresenter   |      |
|      | 5.4.3 Member Function Documentation   |      |
|      | 5.4.3.1 CloseApplication  |      |
|      | 5.4.3.2 CreateNewBankAccount  | . 20 |
|      | 5.4.3.3 CreateNewStockItem  | . 20 |
|      | 5.4.3.4 DeleteBankAccount   |      |
|      | 5.4.3.5 DeleteStockItem   |      |
|      | 5.4.3.6 Deposit   |      |
|      | 5.4.3.7 EditBankAccount   |      |
|      | 5.4.3.8 EditStockItem   | . 20 |
|      | 5.4.3.9 LoadBankAccountsFromFile  | . 21 |
|      | 5.4.3.10 LoadStockItemsFromFile   | . 21 |
|      | 5.4.3.11 OrderItem  | . 21 |
|      | 5.4.3.12 SaveBankAccountsToFile   | . 21 |
|      | 5.4.3.13 SaveBankAccountsToFile   | . 21 |
|      | 5.4.3.14 SaveStockItemsToFile   | . 21 |
|      | 5.4.3.15 SaveStockItemsToFile   | . 22 |
|      | 5.4.3.16 SetUpBankAccountsFilePath  | . 22 |
|      | 5.4.3.17 SetUpStockItemFilePath   | . 22 |
|      | 5.4.3.18 Withdraw   | . 22 |
| 5.5  | ApplicationLogic.Model.ErrorMessage Class Reference                                     |      |
|      | 5.5.1 Detailed Description  | . 23 |
| 5.6  | ApplicationLogic.Model.ErrorMessageCollection Class Reference                           | . 23 |
|      | 5.6.1 Detailed Description  |      |
| 5.7  | ApplicationLogic.FileHandler< T > Class Template Reference                              |      |
|      | 5.7.1 Detailed Description  |      |
|      | 5.7.2 Member Function Documentation   |      |
|      | 5.7.2.1 LoadFromFile  |      |
|      | 5.7.2.2 SaveToFile  |      |
| 5.8  | ApplicationLogic.Interfaces.IBankAccountView Interface Reference                        | . 25 |
|      | 5.8.1 Detailed Description  | . 25 |
| 5.9  | ApplicationLogic.Interfaces.ICongregateView Interface Reference                         |      |
|      | 5.9.1 Detailed Description  |      |
| 5.10 | $\dot{\text{ApplicationLogic.Interfaces.ICSVSerializable}} < T > Interface \; Template$ |      |
|      | Reference   | . 26 |
|      | 5.10.1 Detailed Description   |      |
| 5.11 | ApplicationLogic.Interfaces.IStockItemView Interface Reference                          |      |
|      | 5.11.1 Detailed Description   |      |
| 5.12 | ApplicationLogic.Interfaces.IViewModel Interface Reference                              |      |
| _    | 5.12.1 Detailed Description   |      |
| 5.13 | Assessment_One.MainWindow Class Reference   |      |
| _    | 5.13.1 Detailed Description   |      |
|      | 5.13.2 Member Function Documentation  |      |
|      | 5.13.2.1 Dispose  |      |
|      |   |      |

CONTENTS iii

| 5.14 | ApplicationLogic.Model.NoFilePathSetException Class Reference  | 29 |
|------|--|----|
|      | 5.14.1 Detailed Description                                    | 29 |
| 5.15 | ApplicationLogic.Model.NotEnoughFundsException Class Reference | 29 |
|      | 5.15.1 Detailed Description                                    | 29 |
| 5.16 | Assessment_One.Properties.Resources Class Reference            | 30 |
|      | 5.16.1 Detailed Description                                    |    |
| 5.17 | Assessment_One.Properties.Settings Class Reference             |    |
|      | 5.17.1 Detailed Description                                    |    |
| 5.18 | Assessment_One.SettingsWindow Class Reference                  |    |
|      | 5.18.1 Detailed Description                                    |    |
|      | 5.18.2 Member Function Documentation                           |    |
|      | 5.18.2.1 Dispose   | 31 |
| 5.19 | ApplicationLogic.Model.StockItem Class Reference               |    |
|      | 5.19.1 Detailed Description                                    | 32 |
|      | 5.19.2 Member Function Documentation                           | 32 |
|      | 5.19.2.1 CsvRepresentation                                     | 32 |
|      | 5.19.2.2 IsValidStockCode                                      | 32 |
|      | 5.19.2.3 ParseFromString                                       |    |
|      | 5.19.2.4 Validate  |    |
| 5.20 | NUnit_Tests.StockItemTest Class Reference                      |    |
|      | 5.20.1 Detailed Description                                    | 34 |

## **Chapter 1**

# Namespace Index

## 1.1 Package List

Here are the packages with brief descriptions (if available):

| ApplicationLogic.Interfaces . |  |  |  |  |  |  |  |  |  |  |  |  |  | 7 |
|-------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| ApplicationLogic.Model        |  |  |  |  |  |  |  |  |  |  |  |  |  | 7 |
| ApplicationLogic.Presenter .  |  |  |  |  |  |  |  |  |  |  |  |  |  | 8 |
| Assessment_One                |  |  |  |  |  |  |  |  |  |  |  |  |  | 8 |
| Assessment_One.Properties     |  |  |  |  |  |  |  |  |  |  |  |  |  | 8 |
| NUnit_Tests.ApplicationLogic  |  |  |  |  |  |  |  |  |  |  |  |  |  | 9 |

2 Namespace Index

## **Chapter 2**

## **Class Index**

## 2.1 Class Hierarchy

| NUnit_Tests.ApplicationLogic.BankAccountTest  | 17 |
|---|----|
| ApplicationLogic.Presenter.CongregatePresenter  | 17 |
| ApplicationLogic.Model.ErrorMessage   | 23 |
| ApplicationLogic.Model.ErrorMessageCollection   | 23 |
| ApplicationLogic.FileHandler< T >   | 23 |
| ApplicationLogic.Interfaces.IBankAccountView  | 25 |
| ApplicationLogic.Interfaces.ICongregateView   | 25 |
| $\label{eq:applicationLogic.Interfaces.ICSVSerializable} Application Logic. Interfaces. ICSVSerializable < T > \dots \dots$ | 26 |
| ApplicationLogic.Model.BankAccount  | 13 |
| ApplicationLogic.Model.StockItem  | 31 |
| ApplicationLogic.Interfaces.IStockItemView  | 27 |
| ApplicationLogic.Interfaces.IViewModel  | 27 |
| ApplicationLogic.Model.AppDataManager   | 11 |
| Assessment_One.MainWindow   | 28 |
| ApplicationLogic.Model.NoFilePathSetException   | 29 |
| ApplicationLogic.Model.NotEnoughFundsException  | 29 |

Assessment\_One.Properties.Resources30Assessment\_One.Properties.Settings30Assessment\_One.SettingsWindow30NUnit\_Tests.StockItemTest34

This inheritance list is sorted roughly, but not completely, alphabetically:

Class Index

## **Chapter 3**

## **Class Index**

## 3.1 Class List

| e are the classes, structs, unions and interfaces with brief descriptions:  |    |
|---|----|
| ApplicationLogic.Model.AppDataManager (Handles data and persistent) ApplicationLogic.Model.BankAccount (Pseudo bank account to allow the place- | 11 |
| ment of an order $)$  | 13 |
| NUnit_Tests.ApplicationLogic.BankAccountTest  | 17 |
| ApplicationLogic.Presenter.CongregatePresenter (Presenter for the MainWindow: handles events and GUI-related part of the application logic      |    |
| )   | 17 |
| ApplicationLogic.Model.ErrorMessage   | 23 |
| ApplicationLogic.Model.ErrorMessageCollection (Used to store meaningful er-   |    |
| rormessages for further use )   | 23 |
| ApplicationLogic.FileHandler< T > (Handles reading and writing from files) .  | 23 |
| ApplicationLogic.Interfaces.IBankAccountView (Utilized by the presenter to get  |    |
| the necessary values from a view )  | 25 |
| ApplicationLogic.Interfaces.ICongregateView (Utilized by the presenter to get   |    |
| the necessary values from a view )  | 25 |
| ApplicationLogic.Interfaces.ICSVSerializable < T > (Used to ensure all ob-  |    |
| jects will be able to persited via FileHandler class )  | 26 |
| ApplicationLogic.Interfaces.IStockItemView (Utilized by the presenter to get  |    |
| the necessary values from a view )  | 27 |
| ApplicationLogic.Interfaces.IViewModel (Utilized by the View to set up the data   |    |
| binding to the lists in the model )   | 27 |
| Assessment_One.MainWindow   | 28 |
|   | 29 |
| ApplicationLogic.Model.NotEnoughFundsException (Description of NotEnough-   |    |
| FundsException )  | 29 |
| Assessment_One.Properties.Resources (Eine stark typisierte Ressourcenklasse   |    |
| zum Suchen von lokalisierten Zeichenfolgen usw )  | 30 |
| Assessment_One.Properties.Settings  | 30 |
| Assessment One SettingsWindow   | 30 |

| _ | <u>.</u>    |
|---|-------------|
| 6 | Class Index |
|   |             |

| ApplicationLogic.Model.StockItem (Stores all necessary data for a StockItem) | 31 |
|--|----|
| NUnit Tests StockItemTest  | 34 |

## **Chapter 4**

## **Namespace Documentation**

## 4.1 Package ApplicationLogic.Interfaces

## **Classes**

- interface IBankAccountView
   Utilized by the presenter to get the necessary values from a view.
- interface ICongregateView

  Utilized by the presenter to get the necessary values from a view.
- interface ICSVSerializable

  Used to ensure all objects will be able to persited via FileHandler class.
- interface IStockItemView

  Utilized by the presenter to get the necessary values from a view.
- interface IViewModel

  Utilized by the View to set up the data binding to the lists in the model.

## 4.2 Package ApplicationLogic.Model

### **Classes**

- class AppDataManager
  - Handles data and persistent.
- class BankAccount

Pseudo bank account to allow the placement of an order.

- class ErrorMessage
- class ErrorMessageCollection

Used to store meaningful errormessages for further use.

- · class NoFilePathSetException
- class NotEnoughFundsException

Description of NotEnoughFundsException.

• class StockItem

Stores all necessary data for a StockItem.

## 4.3 Package ApplicationLogic.Presenter

#### **Classes**

· class CongregatePresenter

Presenter for the MainWindow: handles events and GUI-related part of the application logic.

## 4.4 Package Assessment\_One

## **Packages**

package Properties

## Classes

- · class MainWindow
- class Program
- class SettingsWindow

## 4.5 Package Assessment\_One.Properties

#### Classes

class Resources

Eine stark typisierte Ressourcenklasse zum Suchen von lokalisierten Zeichenfolgen usw.

• class Settings

## 4.6 Package NUnit\_Tests.ApplicationLogic

## Classes

class BankAccountTest

## **Chapter 5**

## **Class Documentation**

## 5.1 ApplicationLogic.Model.AppDataManager Class Reference

Handles data and persistent.

Inheritance diagram for ApplicationLogic.Model.AppDataManager:

### **Public Member Functions**

• void CreateNewStockItem ()

Creates a new StockItem and initializes it with dummy values. Adds the item to the StockItem collection.

· void DeleteStockItem (StockItem si)

Deletes a StockItem from the StockItem collection. Throws an ArgumentException if the item can not be found.

void CreateNewBankAccount ()

Creates a new BankAccount and initializes it with dummy values. Adds the item to the BankAccount collection.

• void DeleteBankAccount (BankAccount ba)

Deletes a BankAccount from the BankAccount collection. Throws an ArgumentException if the account can not be found.

void OrderItem (StockItem si, BankAccount ba, int quantity)

Attempts to order an item. If no quantity was provided the required quantity will be ordered. Otherwise the provided quantity will be ordered.

### **Properties**

```
• BindingList< StockItem > StockItems [get, set]
```

- BindingList< BankAccount > BankAccounts [get, set]
- FileHandler < StockItem > StockItemHandler [get, set]
- FileHandler < BankAccount > BankAccountHandler [get, set]

### 5.1.1 Detailed Description

Handles data and persistent.

Definition at line 13 of file AppDataManager.cs.

#### 5.1.2 Member Function Documentation

#### 5.1.2.1 void ApplicationLogic.Model.AppDataManager.CreateNewBankAccount ( )

Creates a new BankAccount and initializes it with dummy values. Adds the item to the BankAccount collection.

Definition at line 70 of file AppDataManager.cs.

## 5.1.2.2 void ApplicationLogic.Model.AppDataManager.CreateNewStockItem ( )

Creates a new StockItem and initializes it with dummy values. Adds the item to the StockItem collection.

Definition at line 44 of file AppDataManager.cs.

### 5.1.2.3 void ApplicationLogic.Model.AppDataManager.DeleteBankAccount ( BankAccount ba )

Deletes a BankAccount from the BankAccount collection. Throws an ArgumentException if the account can not be found.

Definition at line 80 of file AppDataManager.cs.

### 5.1.2.4 void ApplicationLogic.Model.AppDataManager.DeleteStockItem ( StockItem si )

Deletes a StockItem from the StockItem collection. Throws an ArgumentException if the item can not be found.

Definition at line 54 of file AppDataManager.cs.

## 5.1.2.5 void ApplicationLogic.Model.AppDataManager.OrderItem ( StockItem *si*, BankAccount *ba*, int *quantity* )

Attempts to order an item. If no quantity was provided the required quantity will be ordered. Otherwise the provided quantity will be ordered.

#### **Parameters**

|   | indexStock- | Index of the stock item in the stock items list.            |
|---|-------------|---|
|   | Item        |   |
|   | in-         | Index of the bank account in the bank account list.         |
|   | dexBankAc-  |   |
|   | count       |   |
| Г | quantity    | The quantity to be ordered. 0 orders the required quantity. |

Definition at line 202 of file AppDataManager.cs.

The documentation for this class was generated from the following file:

• Application\_Logic/Model/AppDataManager.cs

## 5.2 ApplicationLogic.Model.BankAccount Class Reference

Pseudo bank account to allow the placement of an order.

Inheritance diagram for ApplicationLogic.Model.BankAccount:

#### **Public Member Functions**

• BankAccount ()

Initializes a new instance of the BankAccount class.

• BankAccount (int acc, string name, double balance)

Initializes a new instance of the BankAccount class.

void Withdraw (double amount)

Allows the withdrawal of money from this account. Credit is not granted.

void Deposit (double amount)

Allows the deposit of money to this account.

void Transfer (int accountNumber, double amount)

Amount to be transfered to another account. NOTE: This method is a fake to simulate "real" banking. The money will not be transfered to any account.

• string CsvRepresentation ()

Returns the current BankAccount object as a CSV-String.

• BankAccount ParseFromString (string stringRepresentation)

Attempts to create a BankAccount object from a string.

#### **Static Public Attributes**

static ErrorMessageCollection ErrorMessages = new ErrorMessageCollection()

## **Properties**

```
• int AccountNumber [get, set]

Gets or sets the account number.
```

```
• String Surname [get, set]

Gets or sets the surname.
```

```
• double Balance [get, set]

Gets or sets the balance.
```

## **Events**

• PropertyChangedEventHandler PropertyChanged

## 5.2.1 Detailed Description

Pseudo bank account to allow the placement of an order.

Definition at line 13 of file BankAccount.cs.

#### 5.2.2 Constructor & Destructor Documentation

## 5.2.2.1 ApplicationLogic.Model.BankAccount.BankAccount ( )

Initializes a new instance of the BankAccount class.

Definition at line 82 of file BankAccount.cs.

## 5.2.2.2 ApplicationLogic.Model.BankAccount.BankAccount ( int acc, string name, double balance )

Initializes a new instance of the BankAccount class.

#### **Parameters**

| acc     | The acc.     |
|---------|--------------|
| name    | The name.    |
| balance | The balance. |

Definition at line 92 of file BankAccount.cs.

### 5.2.3 Member Function Documentation

### 5.2.3.1 string ApplicationLogic.Model.BankAccount.CsvRepresentation ( )

Returns the current BankAccount object as a CSV-String.

#### Returns

Representation of the current object as CSV-String.

 $Implements\ Application Logic. Interfaces. ICSV Serializable < T>.$ 

Definition at line 204 of file BankAccount.cs.

### 5.2.3.2 void ApplicationLogic.Model.BankAccount.Deposit ( double amount )

Allows the deposit of money to this account.

#### **Parameters**

| amount | Amount to be deposited - must be greater than 0. |
|--------|--|

Definition at line 127 of file BankAccount.cs.

## 5.2.3.3 BankAccount ApplicationLogic.Model.BankAccount.ParseFromString ( string stringRepresentation )

Attempts to create a BankAccount object from a string.

### **Parameters**

| stringRepre- | The String to be parsed to bank account. |
|--------------|--|
| •            |  |
| sentation    |  |

#### Returns

BankAccount object.

Definition at line 214 of file BankAccount.cs.

## 5.2.3.4 void ApplicationLogic.Model.BankAccount.Transfer ( int accountNumber, double amount )

Amount to be transferred to another account. NOTE: This method is a fake to simulate "real" banking. The money will not be transferred to any account.

#### **Parameters**

| amou  | Amount to be to | ransfered - must be greater than 0. |  |  |
|---|-----------------|-------------------------------------|--|--|
| account- Account number to transfer the money to. |                 |                                     |  |  |
| Numb  | r               |                                     |  |  |

Definition at line 145 of file BankAccount.cs.

## 5.2.3.5 void ApplicationLogic.Model.BankAccount.Withdraw ( double amount )

Allows the withdrawal of money from this account. Credit is not granted.

#### **Parameters**

| amount | Amount to be withdrawn - must be greater than 0. |
|--------|--|
|--------|--|

Definition at line 104 of file BankAccount.cs.

## 5.2.4 Property Documentation

#### **5.2.4.1** int ApplicationLogic.Model.BankAccount.AccountNumber [get, set]

Gets or sets the account number.

The account number.

Definition at line 21 of file BankAccount.cs.

## $\textbf{5.2.4.2} \quad \textbf{double ApplicationLogic.Model.BankAccount.Balance} \quad [\texttt{get, set}]$

Gets or sets the balance.

The balance.

Definition at line 57 of file BankAccount.cs.

#### **5.2.4.3 String ApplicationLogic.Model.BankAccount.Surname** [get, set]

Gets or sets the surname.

The surname.

Definition at line 39 of file BankAccount.cs.

The documentation for this class was generated from the following file:

• Application\_Logic/Model/BankAccount.cs

## 5.3 NUnit\_Tests.ApplicationLogic.BankAccountTest Class Reference

## **Public Member Functions**

- void SetUp ()
- void TestBalanceUnder0 ()
- void TestWithdrawalWithTooHighValues ()
- void TestWithdrawalWithTooSmallValues ()
- void TestDepositWithTooSmallValue ()
- void TestTransferWithTooSmallValue ()
- void TestOrdinaryFunctions ()

### 5.3.1 Detailed Description

Definition at line 11 of file BankAccountTest.cs.

The documentation for this class was generated from the following file:

• NUnit Tests/ApplicationLogic/BankAccountTest.cs

# 5.4 ApplicationLogic.Presenter.CongregatePresenter Class Reference

Presenter for the MainWindow: handles events and GUI-related part of the application logic.

#### **Public Member Functions**

CongregatePresenter (ICongregateView view, IStockItemView stockItemView, IBankAccountView bankAccountView, IViewModel model)

Initializes a new instance of the CongregatePresenter class.

· void CreateNewStockItem ()

ApplicationLogic.Model.AppDataManagerClass

• void DeleteStockItem ()

Deletes the stock item.

void CreateNewBankAccount ()

Creates the new bank account.

• void DeleteBankAccount ()

Deletes the bank account.

• void EditStockItem ()

Edits the stock item.

• void EditBankAccount ()

Edits the bank account.

• void OrderItem ()

Orders the item.

• void Deposit ()

Deposits this instance.

• void Withdraw ()

Withdraws this instance.

• void CloseApplication ()

Closes the application.

• void LoadStockItemsFromFile (String filePath)

Loads the stock items from file.

void LoadBankAccountsFromFile (String filePath)

Loads the bank accounts from file.

• void SaveStockItemsToFile (String filePath)

Saves the stock items to file.

• void SaveBankAccountsToFile (String filePath)

Saves the bank accounts to file.

• void SetUpStockItemFilePath (string filePathStockItems)

Sets up stock item file path.

• void SetUpBankAccountsFilePath (string filePathBankAccounts)

Sets up bank accounts file path.

• void SaveBankAccountsToFile ()

Saves the bank accounts to file.

• void SaveStockItemsToFile ()

Saves the stock items to file.

### **Public Attributes**

- ICongregateView \_View
- IStockItemView \_StockItemView
- IBankAccountView \_BankAccountView
- AppDataManager \_Model

## 5.4.1 Detailed Description

Presenter for the MainWindow: handles events and GUI-related part of the application logic.

Definition at line 14 of file CongregatePresenter.cs.

#### 5.4.2 Constructor & Destructor Documentation

5.4.2.1 ApplicationLogic.Presenter.CongregatePresenter.CongregatePresenter (
ICongregateView view, IStockItemView stockItemView, IBankAccountView bankAccountView, IViewModel model)

Initializes a new instance of the CongregatePresenter class.

#### **Parameters**

| view      | The view.              |
|-----------|------------------------|
| stock-    | The stock item view.   |
| ItemView  |                        |
| bankAc-   | The bank account view. |
| countView |                        |
| model     | The model.             |

Definition at line 29 of file CongregatePresenter.cs.

#### 5.4.3 Member Function Documentation

## 5.4.3.1 void ApplicationLogic.Presenter.CongregatePresenter.CloseApplication ( )

Closes the application.

Definition at line 207 of file CongregatePresenter.cs.

#### 5.4.3.2 void ApplicationLogic.Presenter.CongregatePresenter.CreateNewBankAccount ( )

Creates the new bank account.

Definition at line 60 of file CongregatePresenter.cs.

#### 5.4.3.3 void ApplicationLogic.Presenter.CongregatePresenter.CreateNewStockItem ( )

ApplicationLogic.Model.AppDataManagerClass

Definition at line 40 of file CongregatePresenter.cs.

#### 5.4.3.4 void ApplicationLogic.Presenter.CongregatePresenter.DeleteBankAccount ( )

Deletes the bank account.

Definition at line 68 of file CongregatePresenter.cs.

## 5.4.3.5 void ApplicationLogic.Presenter.CongregatePresenter.DeleteStockItem ( )

Deletes the stock item.

Definition at line 48 of file CongregatePresenter.cs.

### 5.4.3.6 void ApplicationLogic.Presenter.CongregatePresenter.Deposit ( )

Deposits this instance.

Definition at line 162 of file CongregatePresenter.cs.

## 5.4.3.7 void ApplicationLogic.Presenter.CongregatePresenter.EditBankAccount ( )

Edits the bank account.

Definition at line 111 of file CongregatePresenter.cs.

### 5.4.3.8 void ApplicationLogic.Presenter.CongregatePresenter.EditStockItem ( )

Edits the stock item.

Definition at line 79 of file CongregatePresenter.cs.

## 5.4.3.9 void ApplicationLogic.Presenter.CongregatePresenter.LoadBankAccountsFromFile ( String *filePath* )

Loads the bank accounts from file.

#### **Parameters**

| filePath | The file path. |  |  |
|----------|----------------|--|--|

Definition at line 226 of file CongregatePresenter.cs.

## 5.4.3.10 void ApplicationLogic.Presenter.CongregatePresenter.LoadStockItemsFromFile ( String filePath )

Loads the stock items from file.

#### **Parameters**

| (1 D 11 T) (11 11             |    |
|-------------------------------|----|
| <i>filePath</i> The file path | 1  |
| mer aur intente ban           | l. |
|                               |    |

Definition at line 217 of file CongregatePresenter.cs.

### 5.4.3.11 void ApplicationLogic.Presenter.CongregatePresenter.OrderItem ( )

Orders the item.

Definition at line 139 of file CongregatePresenter.cs.

## 5.4.3.12 void ApplicationLogic.Presenter.CongregatePresenter.SaveBankAccountsToFile ( String filePath )

Saves the bank accounts to file.

#### **Parameters**

| filePath | The file path. |
|----------|----------------|

Definition at line 244 of file CongregatePresenter.cs.

## 5.4.3.13 void ApplicationLogic.Presenter.CongregatePresenter.SaveBankAccountsToFile ( )

Saves the bank accounts to file.

Definition at line 276 of file CongregatePresenter.cs.

## 5.4.3.14 void ApplicationLogic.Presenter.CongregatePresenter.SaveStockItemsToFile ( )

Saves the stock items to file.

Definition at line 291 of file CongregatePresenter.cs.

## 5.4.3.15 void ApplicationLogic.Presenter.CongregatePresenter.SaveStockItemsToFile ( String filePath )

Saves the stock items to file.

#### **Parameters**

| filePath | The file path. |
|----------|----------------|

Definition at line 235 of file CongregatePresenter.cs.

## 5.4.3.16 void ApplicationLogic.Presenter.CongregatePresenter.SetUpBankAccountsFilePath ( string filePathBankAccounts )

Sets up bank accounts file path.

#### **Parameters**

| filePath- | The file path bank accounts. |
|-----------|------------------------------|
| BankAc-   |                              |
| counts    |                              |

Definition at line 265 of file CongregatePresenter.cs.

## 5.4.3.17 void ApplicationLogic.Presenter.CongregatePresenter.SetUpStockItemFilePath ( string filePathStockItems )

Sets up stock item file path.

#### **Parameters**

| ſ | filePath-  | The file path stock items. |
|---|------------|----------------------------|
|   | StockItems |                            |

Definition at line 253 of file CongregatePresenter.cs.

## 5.4.3.18 void ApplicationLogic.Presenter.CongregatePresenter.Withdraw ( )

Withdraws this instance.

Definition at line 179 of file CongregatePresenter.cs.

The documentation for this class was generated from the following file:

 $\bullet \ \, \mathsf{Application\_Logic/Presenter/CongregatePresenter.cs}$ 

## 5.5 ApplicationLogic.Model.ErrorMessage Class Reference

### **Public Member Functions**

- ErrorMessage (string p)
- override string ToString ()

### **Properties**

- String Message [get, set]String Source [get, set]
- 5.5.1 Detailed Description

Definition at line 8 of file ErrorMessage.cs.

The documentation for this class was generated from the following file:

· Application\_Logic/Model/ErrorMessage.cs

## 5.6 ApplicationLogic.Model.ErrorMessageCollection Class Reference

Used to store meaningful errormessages for further use.

### **Public Member Functions**

• override string ToString ()

## 5.6.1 Detailed Description

Used to store meaningful errormessages for further use.

Definition at line 11 of file ErrorMessageCollection.cs.

The documentation for this class was generated from the following file:

 $\bullet \ Application\_Logic/Model/ErrorMessageCollection.cs$ 

## 5.7 ApplicationLogic.FileHandler < T > Class Template Reference

Handles reading and writing from files.

### **Public Member Functions**

- FileHandler ()
- FileHandler (String readFilePath, String writeFilePath)
- void SaveToFile (IList< T > elements)

Attempts to write the specified collection to the file specified in the Handler. Throws NoFilePathSetException if no file has yet been set.

• IList< T > LoadFromFile (T item)

Attempts to read a collection of items from the specified file. Throws NoFilePathSetException if no file has yet been set.

### **Public Attributes**

- · String ReadFilePath
- String WriteFilePath

### 5.7.1 Detailed Description

template < T> class ApplicationLogic::FileHandler < T>

Handles reading and writing from files.

#### **Type Constraints**

T: ICSVSerializable<T>

Definition at line 13 of file FileHandler.cs.

## 5.7.2 Member Function Documentation

5.7.2.1 template<T > IList<T> ApplicationLogic.FileHandler< T > .LoadFromFile ( T item )

Attempts to read a collection of items from the specified file. Throws NoFilePathSetException if no file has yet been set.

#### **Parameters**

item Parameter needed to construct the objects.

#### Returns

Collection of items.

Definition at line 61 of file FileHandler.cs.

## 5.7.2.2 template < T > void ApplicationLogic.FileHandler < T >.SaveToFile ( IList < T > elements )

Attempts to write the specified collection to the file specified in the Handler. Throws NoFilePathSetException if no file has yet been set.

#### **Parameters**

```
elements Collection to be saved to file.
```

Definition at line 34 of file FileHandler.cs.

The documentation for this class was generated from the following file:

Application Logic/Model/FileHandler.cs

# 5.8 ApplicationLogic.Interfaces.IBankAccountView Interface Reference

Utilized by the presenter to get the necessary values from a view.

## **Properties**

- int AccountNumber [get]
- String Surname [get]
- double Balance [get]

## 5.8.1 Detailed Description

Utilized by the presenter to get the necessary values from a view.

Definition at line 11 of file IBankAccountView.cs.

The documentation for this interface was generated from the following file:

• Application\_Logic/Interfaces/IBankAccountView.cs

## 5.9 ApplicationLogic.Interfaces.ICongregateViewInterface Reference

Utilized by the presenter to get the necessary values from a view.

#### **Public Member Functions**

- bool ConfirmDelete ()
- bool ConfirmClose ()
- void DisplayValidationErrors (ErrorMessageCollection errorCollection)

### **Properties**

- StockItem StockItem [get]
- BankAccount BankAccount [get]
- int Quantity [get]
- double **Deposit** [get]
- double Withdraw [get]

### 5.9.1 Detailed Description

Utilized by the presenter to get the necessary values from a view.

Definition at line 12 of file ICongregateView.cs.

The documentation for this interface was generated from the following file:

· Application\_Logic/Interfaces/ICongregateView.cs

# 5.10 ApplicationLogic.Interfaces.ICSVSerializable< T > Interface Template Reference

Used to ensure all objects will be able to persited via FileHandler class.

 $Inheritance\ diagram\ for\ Application Logic. Interfaces. ICSV Serializable < T>:$ 

## **Public Member Functions**

- String CsvRepresentation ()
- T ParseFromString (String stringRepresentation)

## 5.10.1 Detailed Description

template<T> interface ApplicationLogic::Interfaces::ICSVSerializable< T>

Used to ensure all objects will be able to persited via FileHandler class.

#### **Template Parameters**

T

Definition at line 12 of file ICSVSerializable.cs.

The documentation for this interface was generated from the following file:

• Application\_Logic/Interfaces/ICSVSerializable.cs

## 5.11 ApplicationLogic.Interfaces.IStockItemView Interface Reference

Utilized by the presenter to get the necessary values from a view.

## **Properties**

```
    int CurrentStock [get]
    string ItemName [get]
    int RequiredStock [get]
    string StockCode [get]
    string SupplierName [get]
    double UnitCost [get]
```

## 5.11.1 Detailed Description

Utilized by the presenter to get the necessary values from a view.

Definition at line 7 of file IStockItemView.cs.

The documentation for this interface was generated from the following file:

Application\_Logic/Interfaces/IStockItemView.cs

## 5.12 ApplicationLogic.Interfaces.IViewModel Interface Reference

Utilized by the View to set up the data binding to the lists in the model.

Inheritance diagram for ApplicationLogic.Interfaces.IViewModel:

### **Properties**

```
    BindingList < StockItem > StockItems [get]
    BindingList < BankAccount > BankAccounts [get]
```

### 5.12.1 Detailed Description

Utilized by the View to set up the data binding to the lists in the model.

Definition at line 10 of file IViewModel.cs.

The documentation for this interface was generated from the following file:

• Application\_Logic/Interfaces/IViewModel.cs

## 5.13 Assessment\_One.MainWindow Class Reference

### **Public Member Functions**

- void DisplayValidationErrors (ErrorMessageCollection errorCollection)
- bool ConfirmDelete ()
- bool ConfirmClose ()

#### **Protected Member Functions**

• override void Dispose (bool disposing)

Verwendete Ressourcen bereinigen.

## **Properties**

- int CurrentStock [get]
- int RequiredStock [get]
- string StockCode [get]
- string SupplierName [get]
- double UnitCost [get]
- string ItemName [get]
- int AccountNumber [get]
- string Surname [get]
- double Balance [get]
- StockItem StockItem [get]
- BankAccount BankAccount [get]
- int Quantity [get]
- double Deposit [get]
- double Withdraw [get]

## 5.13.1 Detailed Description

Definition at line 18 of file MainWindow.cs.

#### **5.13.2 Member Function Documentation**

## 5.13.2.1 override void Assessment\_One.MainWindow.Dispose ( bool disposing )

```
[protected]
```

Verwendete Ressourcen bereinigen.

#### **Parameters**

| disposing | True, | wenn | verwaltete | Ressourcen | gelöscht | werden | sollen; | andernfalls |
|-----------|-------|------|------------|------------|----------|--------|---------|-------------|
|           | False |      |            |            |          |        |         |             |

Definition at line 14 of file MainWindow.Designer.cs.

The documentation for this class was generated from the following files:

- · Assessment One/MainWindow.cs
- · Assessment\_One/MainWindow.Designer.cs

# 5.14 ApplicationLogic.Model.NoFilePathSetException Class Reference

#### **Public Member Functions**

· NoFilePathSetException (String msg)

### 5.14.1 Detailed Description

Definition at line 8 of file NoFilePathSetException.cs.

The documentation for this class was generated from the following file:

• Application\_Logic/Model/NoFilePathSetException.cs

# 5.15 ApplicationLogic.Model.NotEnoughFundsException Class Reference

Description of NotEnoughFundsException.

#### **Public Member Functions**

• NotEnoughFundsException (String message)

## 5.15.1 Detailed Description

Description of NotEnoughFundsException.

Definition at line 8 of file NotEnoughFundsException.cs.

The documentation for this class was generated from the following file:

• Application\_Logic/Model/NotEnoughFundsException.cs

## 5.16 Assessment\_One.Properties.Resources Class Reference

Eine stark typisierte Ressourcenklasse zum Suchen von lokalisierten Zeichenfolgen usw.

## 5.16.1 Detailed Description

Eine stark typisierte Ressourcenklasse zum Suchen von lokalisierten Zeichenfolgen usw.

Definition at line 25 of file Resources. Designer.cs.

The documentation for this class was generated from the following file:

• Assessment\_One/Properties/Resources.Designer.cs

## 5.17 Assessment\_One.Properties.Settings Class Reference

## **Properties**

```
static Settings Default [get]
string StockItemFilePath [get, set]
string BankAccountFilePath [get, set]
```

### 5.17.1 Detailed Description

Definition at line 16 of file Settings.Designer.cs.

The documentation for this class was generated from the following files:

- Assessment\_One/Properties/Settings.Designer.cs
- Assessment\_One/Settings.cs

## 5.18 Assessment\_One.SettingsWindow Class Reference

#### **Protected Member Functions**

override void Dispose (bool disposing)
 Clean up any resources being used.

## 5.18.1 Detailed Description

Definition at line 15 of file SettingsWindow.cs.

#### 5.18.2 Member Function Documentation

#### 5.18.2.1 override void Assessment\_One.SettingsWindow.Dispose ( bool disposing )

[protected]

Clean up any resources being used.

#### **Parameters**

disposing true if managed resources should be disposed; otherwise, false.

Definition at line 14 of file SettingsWindow.Designer.cs.

The documentation for this class was generated from the following files:

- Assessment\_One/SettingsWindow.cs
- · Assessment One/SettingsWindow.Designer.cs

## 5.19 ApplicationLogic.Model.StockItem Class Reference

Stores all necessary data for a StockItem.

Inheritance diagram for ApplicationLogic.Model.StockItem:

### **Public Member Functions**

- StockItem (String stockCode, String name, String supplierName, double unitCost, int required, int currentStock)
- void EditStockItem (String stockCode, String name, String supplierName, double unitCost, int required, int currentStock)
- String CsvRepresentation ()

Returns the current StockItem object as a CSV-String.

• StockItem ParseFromString (string stringRepresentation)

Attempts to create a StockItem object from a string.

#### **Static Public Member Functions**

- static bool IsValidStockCode (string value)
  - Checks if the stock code conforms to a certain format. Current format is exactly four numbers, with leading 0 allowed.
- static bool Validate (String stockCode, String name, String supplierName, double unitCost, int required, int currentStock)

Validates a set of possible changes to a StockItem.

#### **Static Public Attributes**

• static ErrorMessageCollection ErrorMessages = new ErrorMessageCollection()

## **Properties**

```
String StockCode [get, set]
String Name [get, set]
String SupplierName [get, set]
double UnitCost [get, set]
int RequiredStock [get, set]
int CurrentStock [get, set]
```

### **Events**

• PropertyChangedEventHandler PropertyChanged

## 5.19.1 Detailed Description

Stores all necessary data for a StockItem.

Definition at line 14 of file StockItem.cs.

#### 5.19.2 Member Function Documentation

## 5.19.2.1 String ApplicationLogic.Model.StockItem.CsvRepresentation ( )

Returns the current StockItem object as a CSV-String.

## Returns

Representation of the current object as CSV-String.

Implements ApplicationLogic.Interfaces.ICSVSerializable < T >.

Definition at line 230 of file StockItem.cs.

## 5.19.2.2 static bool ApplicationLogic.Model.StockItem.IsValidStockCode ( string value ) [static]

Checks if the stock code conforms to a certain format. Current format is exactly four numbers, with leading 0 allowed.

### **Parameters**

| value | The string that must be checked against the schema. |
|-------|---|

### Returns

True if the string conforms to the schema, false otherwise.

Definition at line 152 of file StockItem.cs.

## 5.19.2.3 StockItem ApplicationLogic.Model.StockItem.ParseFromString ( string stringRepresentation )

Attempts to create a StockItem object from a string.

#### **Parameters**

| stringRepre- | The String to be parsed to StockItem. |
|--------------|---------------------------------------|
| sentation    |                                       |

#### **Returns**

StockItem object.

Definition at line 240 of file StockItem.cs.

# 5.19.2.4 static bool ApplicationLogic.Model.StockItem.Validate ( String stockCode, String name, String supplierName, double unitCost, int required, int currentStock ) [static]

Validates a set of possible changes to a StockItem.

#### **Parameters**

| stockCode    | StockCodew to be verified    |
|--------------|------------------------------|
| name         | Name to be verified          |
| supplier-    | SupplierName to be verified  |
| Name         |                              |
| unitCost     | UnitCost to be verified      |
| required     | RequiredStock to be verified |
| currentStock | CurrentStock to be verified  |

## Returns

True if the values would be valid, false otherwise.

Definition at line 187 of file StockItem.cs.

The documentation for this class was generated from the following file:

• Application\_Logic/Model/StockItem.cs

## 5.20 NUnit\_Tests.StockItemTest Class Reference

## **Public Member Functions**

- void SetUp ()
- void TestLessThan0Cost ()
- void TestLessThan0CurrentStock ()
- void TestLessThan0RequiredStock ()
- void TestlsValidStockCode ()
- void TestIsValidStockCodeRaiseException ()

## 5.20.1 Detailed Description

Definition at line 11 of file StockItemTest.cs.

The documentation for this class was generated from the following file:

• NUnit\_Tests/ApplicationLogic/StockItemTest.cs