

ATM

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

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

DBHandling	??
IDAL	??
DAL	??
IUser	??
User	??
Admin	??
Customer	??
IUserInput	??
Input	??
Program	??
UI	??

Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Admin	Admin class inheriting from user with extra functionality	??
Customer	Customer class inheriting from user with extra functionality	??
DAL	DAL (Data Abstraction Layer) class to hand direct interaction with the database	??
DBHandling	DBHandling class for the rest of the program to interace with the database	??
IDAL	DAL interface defining core required functionality for a DAL	??
Input	Input class to handle getting user input from the console	??
IUser	User interface defining core required functionality for a User	??
IUserInput	UserInput interface defining core required functionality for UserInput	??
Program	Program class for executing the Main function for the program	??
UI	UI class to handle interaction between a user of the program and the business logic layer . . .	??
User	User abstract class with core functionality for all users	??

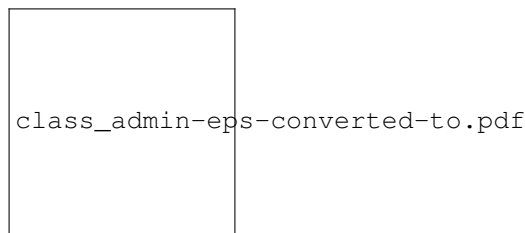
Chapter 3

Class Documentation

3.1 Admin Class Reference

[Admin](#) class inheriting from user with extra functionality.

Inheritance diagram for Admin:



Public Member Functions

- override string [DisplayMenu](#) (string input)
Displays the menu for an [Admin](#) and handles the user input to select an action.

Public Member Functions inherited from [User](#)

- void [Exit](#) ()
Exits the application.
- int [GetAccountNumber](#) ()
Gets the account number for this user.
- string [GetAccountName](#) ()
Gets the account name for this user.
- double [GetAccountBalance](#) ()
Gets the account balance for this user.
- string [GetAccountStatus](#) ()
Gets the account status for this user.
- string [GetAccountLogin](#) ()
Gets the account login for this user.
- int [GetAccountPin](#) ()
Gets the account pin for this user.
- void [SetAccountBalance](#) (double input_balance)
Sets the account balance for this user.
- string [DisplayMenu](#) (string input)

Protected Member Functions

- override string **HandleMenuInput** (string input)

Protected Member Functions inherited from [User](#)

- **User** (string input_login, int input_pin, string input_name, double input_balance, int input_account_number, string input_status)
- **User** ([IUser](#) user)
- string [HandleMenuInput](#) (string input)
Displays the menu for a user and handles the user input to select an action.

3.1.1 Detailed Description

[Admin](#) class inheriting from user with extra functionality.

3.1.2 Member Function Documentation

3.1.2.1 DisplayMenu()

```
override string Admin.DisplayMenu (
    string input)
```

Displays the menu for an [Admin](#) and handles the user input to select an action.

Parameters

<i>input</i>	String number to select an action from the menu.
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Returns

String that was input.

Implements [IUser](#).

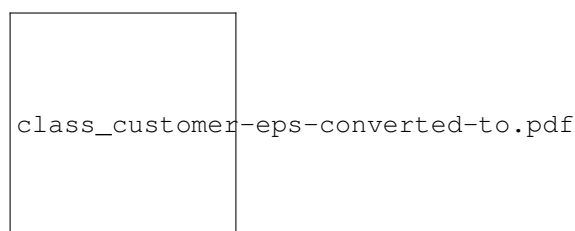
The documentation for this class was generated from the following file:

- ATM/Business_Logic/Admin.cs

3.2 Customer Class Reference

[Customer](#) class inheriting from user with extra functionality.

Inheritance diagram for Customer:



Public Member Functions

- override string [DisplayMenu](#) (string input)
Displays the menu for a [Customer](#) and handles the user input to select an action.

Public Member Functions inherited from [User](#)

- void [Exit](#) ()
Exits the application.
- int [GetAccountNumber](#) ()
Gets the account number for this user.
- string [GetAccountName](#) ()
Gets the account name for this user.
- double [GetAccountBalance](#) ()
Gets the account balance for this user.
- string [GetAccountStatus](#) ()
Gets the account status for this user.
- string [GetAccountLogin](#) ()
Gets the account login for this user.
- int [GetAccountPin](#) ()
Gets the account pin for this user.
- void [SetAccountBalance](#) (double input_balance)
Sets the account balance for this user.
- string [DisplayMenu](#) (string input)

Protected Member Functions

- override string [HandleMenuInput](#) (string input)

Protected Member Functions inherited from [User](#)

- **User** (string input_login, int input_pin, string input_name, double input_balance, int input_account_number, string input_status)
- **User** ([IUser](#) user)
- string [HandleMenuInput](#) (string input)
Displays the menu for a user and handles the user input to select an action.

3.2.1 Detailed Description

[Customer](#) class inheriting from user with extra functionality.

3.2.2 Member Function Documentation

3.2.2.1 DisplayMenu()

```
override string Customer.DisplayMenu (  
    string input)
```

Displays the menu for a [Customer](#) and handles the user input to select an action.

Parameters

<i>input</i>	String number to select an action from the menu.
--------------	--

Returns

String that was input.

Implements [IUser](#).

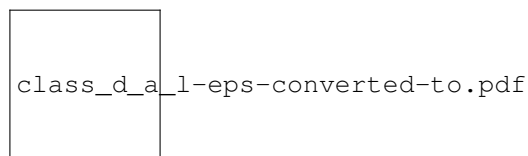
The documentation for this class was generated from the following file:

- ATM/Business_Logic/Customer.cs

3.3 DAL Class Reference

[DAL](#) (Data Abstraction Layer) class to hand direct interaction with the database.

Inheritance diagram for DAL:

**Public Member Functions**

- [MySQL.Data.MySqlClient.MySqlConnection](#) [Connect](#) ()
Connects to the SQL database for the ATM.
- [User Login](#) (string login, int pin)
Logs in a user to the database.

3.3.1 Detailed Description

[DAL](#) (Data Abstraction Layer) class to hand direct interaction with the database.

3.3.2 Member Function Documentation

3.3.2.1 Connect()

```
MySQL.Data.MySqlClient.MySqlConnection DAL.Connect ()
```

Connects to the SQL database for the ATM.

Returns

[MySQL.Data.MySqlClient.MySqlConnection](#) for the created connection or null if the connection failed.

Implements [IDAL](#).

3.3.2.2 Login()

```
User DAL.Login (
    string login,
    int pin)
```

Logs in a user to the database.

Parameters

<i>login</i>	String login for the user attempting access.
<i>pin</i>	Int pin for the user attempting access.

Returns

[User](#) if found or null if the login failed.

Implements [IDAL](#).

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

- ATM/DAL/DAL.cs

3.4 DBHandling Class Reference

[DBHandling](#) class for the rest of the program to interface with the database.

Static Public Member Functions

- static `MySql.Data.MySqlClient.MySqlConnection` [ConnectHandling](#) ([IDAL](#) dal)
Handles connecting by executing connect for the provided [DAL](#).
- static [User](#) [LoginHandling](#) ([IDAL](#) dal, string login, int pin)
Handles logging in a user to the database.

3.4.1 Detailed Description

[DBHandling](#) class for the rest of the program to interface with the database.

3.4.2 Member Function Documentation

3.4.2.1 ConnectHandling()

```
static MySql.Data.MySqlClient.MySqlConnection DBHandling.ConnectHandling (  
    IDAL dal) [static]
```

Handles connecting by executing connect for the provided [DAL](#).

Parameters

<i>dal</i>	IDAL to attempt a connection with.
------------	--

Returns

`MySql.Data.MySqlClient.MySqlConnection` if the connect was successful or null if it failed.

3.4.2.2 LoginHandling()

```
static User DBHandling.LoginHandling (  
    IDAL dal,  
    string login,  
    int pin) [static]
```

Handles logging in a user to the database.

Parameters

<i>dal</i>	IDAL to attempt a connection with.
<i>login</i>	String login for the user attempting access.
<i>pin</i>	Int pin for the user attempting access.

Returns

[User](#) if the login was successful or null if it failed.

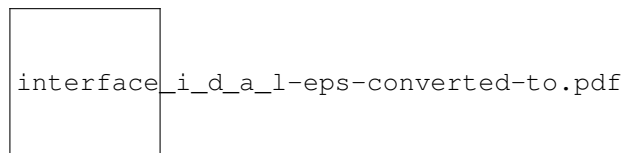
The documentation for this class was generated from the following file:

- ATM/DAL/DBHandling.cs

3.5 IDAL Interface Reference

[DAL](#) interface defining core required functionality for a [DAL](#).

Inheritance diagram for IDAL:

**Public Member Functions**

- `MySql.Data.MySqlClient.MySqlConnection Connect ()`
Connects to the SQL database for the ATM.
- `User Login (string login, int pin)`
Logs in a user to the database.

3.5.1 Detailed Description

[DAL](#) interface defining core required functionality for a [DAL](#).

3.5.2 Member Function Documentation

3.5.2.1 `Connect()`

```
MySql.Data.MySqlClient.MySqlConnection IDAL.Connect () [abstract]
```

Connects to the SQL database for the ATM.

Returns

`MySql.Data.MySqlClient.MySqlConnection` for the created connection or null if the connection failed.

Implemented in [DAL](#).

3.5.2.2 Login()

```
User IDAL.Login (  
    string login,  
    int pin) [abstract]
```

Logs in a user to the database.

Parameters

<i>login</i>	String login for the user attempting access.
<i>pin</i>	Int pin for the user attempting access.

Returns

[User](#) if found or null if the login failed.

Implemented in [DAL](#).

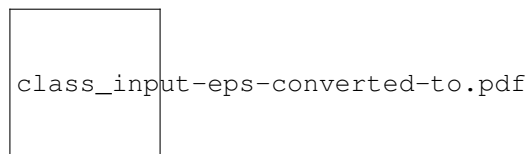
The documentation for this interface was generated from the following file:

- ATM/Interfaces/IDAL.cs

3.6 Input Class Reference

[Input](#) class to handle getting user input from the console.

Inheritance diagram for Input:



Public Member Functions

- string [GetInput](#) ()
Gets the input from reading the console.

3.6.1 Detailed Description

[Input](#) class to handle getting user input from the console.

3.6.2 Member Function Documentation

3.6.2.1 GetInput()

```
string Input.GetInput ()
```

Gets the input from reading the console.

Returns

String input from the console.

Implements [IUserInput](#).

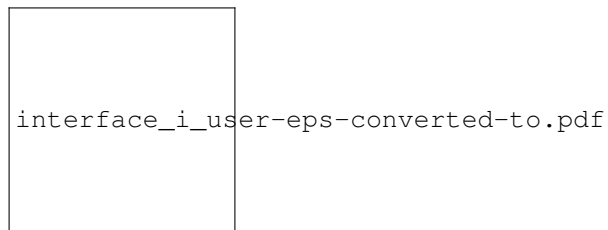
The documentation for this class was generated from the following file:

- ATM/UI/Input.cs

3.7 IUser Interface Reference

[User](#) interface defining core required functionality for a [User](#).

Inheritance diagram for IUser:



Protected Member Functions

- void [Exit](#) ()
- void [SetAccountBalance](#) (double input_balance)

3.7.1 Detailed Description

[User](#) interface defining core required functionality for a [User](#).

3.7.2 Member Function Documentation

3.7.2.1 Exit()

```
void IUser.Exit () [protected]
```

Implemented in [User](#).

3.7.2.2 SetAccountBalance()

```
void IUser.SetAccountBalance (
    double input_balance) [protected]
```

Implemented in [User](#).

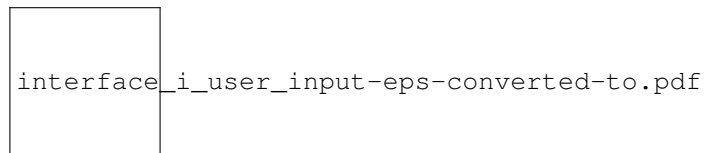
The documentation for this interface was generated from the following file:

- ATM/Interfaces/IUser.cs

3.8 IUserInput Interface Reference

UserInput interface defining core required functionality for UserInput.

Inheritance diagram for IUserInput:



Public Member Functions

- string [GetInput](#) ()

3.8.1 Detailed Description

UserInput interface defining core required functionality for UserInput.

3.8.2 Member Function Documentation

3.8.2.1 GetInput()

```
string IUserInput.GetInput ()
```

Implemented in [Input](#).

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

- ATM/Interfaces/IUserInput.cs

3.9 Program Class Reference

[Program](#) class for executing the Main function for the program.

3.9.1 Detailed Description

[Program](#) class for executing the Main function for the program.

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

- [ATM/UI/Program.cs](#)

3.10 UI Class Reference

[UI](#) class to handle interaction between a user of the program and the business logic layer.

Static Public Member Functions

- static string [HandleInput](#) ([IUserInput](#) input)
Handles getting input.
- static string [Menu](#) ([IUser](#) user, string input)
Menu functionality for the program.

3.10.1 Detailed Description

[UI](#) class to handle interaction between a user of the program and the business logic layer.

3.10.2 Member Function Documentation

3.10.2.1 HandleInput()

```
static string UI.HandleInput (  
    IUserInput input) [static]
```

Handles getting input.

Parameters

<i>input</i>	IUserInput to execute getting input with.
--------------	---

Returns

String returned from getting input with [IUserInput](#).

3.10.2.2 Menu()

```
static string UI.Menu (  
    IUser user,  
    string input) [static]
```

Menu functionality for the program.

Parameters

<i>user</i>	IUser to display the menu for.
<i>input</i>	String input to select a menu option.

Returns

String that was provided as input.

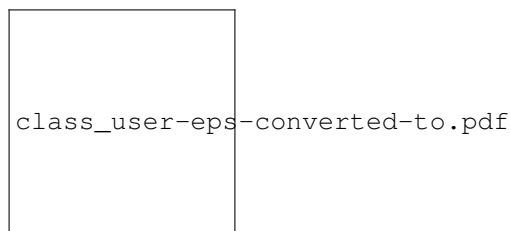
The documentation for this class was generated from the following file:

- ATM/UI/UI.cs

3.11 User Class Reference

[User](#) abstract class with core functionality for all users.

Inheritance diagram for User:



Public Member Functions

- void [Exit](#) ()
Exits the application.
- int [GetAccountNumber](#) ()
Gets the account number for this user.
- string [GetAccountName](#) ()
Gets the account name for this user.
- double [GetAccountBalance](#) ()
Gets the account balance for this user.
- string [GetAccountStatus](#) ()
Gets the account status for this user.
- string [GetAccountLogin](#) ()
Gets the account login for this user.
- int [GetAccountPin](#) ()
Gets the account pin for this user.
- void [SetAccountBalance](#) (double input_balance)
Sets the account balance for this user.
- string [DisplayMenu](#) (string input)

Protected Member Functions

- **User** (string input_login, int input_pin, string input_name, double input_balance, int input_account_number, string input_status)
- **User** ([IUser](#) user)
- string [HandleMenuInput](#) (string input)

Displays the menu for a user and handles the user input to select an action.

3.11.1 Detailed Description

[User](#) abstract class with core functionality for all users.

3.11.2 Member Function Documentation

3.11.2.1 DisplayMenu()

```
string User.DisplayMenu (  
    string input) [abstract]
```

Implements [IUser](#).

3.11.2.2 Exit()

```
void User.Exit ()
```

Exits the application.

Implements [IUser](#).

3.11.2.3 GetAccountBalance()

```
double User.GetAccountBalance ()
```

Gets the account balance for this user.

Returns

Double account balance.

Implements [IUser](#).

3.11.2.4 GetAccountLogin()

```
string User.GetAccountLogin ()
```

Gets the account login for this user.

Returns

String account login.

Implements [IUser](#).

3.11.2.5 GetAccountName()

```
string User.GetAccountName ()
```

Gets the account name for this user.

Returns

String account name.

Implements [IUser](#).

3.11.2.6 GetAccountNumber()

```
int User.GetAccountNumber ()
```

Gets the account number for this user.

Returns

Int account number.

Implements [IUser](#).

3.11.2.7 GetAccountPin()

```
int User.GetAccountPin ()
```

Gets the account pin for this user.

Returns

Int account pin.

Implements [IUser](#).

3.11.2.8 GetAccountStatus()

```
string User.GetAccountStatus ()
```

Gets the account status for this user.

Returns

String account status.

Implements [IUser](#).

3.11.2.9 HandleMenuInput()

```
string User.HandleMenuInput (  
    string input) [abstract], [protected]
```

Displays the menu for a user and handles the user input to select an action.

Parameters

<i>input</i>	String number to select an action from the menu.
--------------	--

Returns

String that was input.

3.11.2.10 SetAccountBalance()

```
void User.SetAccountBalance (  
    double input_balance)
```

Sets the account balance for this user.

Parameters

<i>input_balance</i>	Double to set the balance to.
----------------------	-------------------------------

Implements [IUser](#).

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

- ATM/Business_Logic/User.cs