

ASSIGNMENT A2

1. Objective

The objective of this assignment is to allow students to become familiar with architectural patterns.

2. Application Description

Use Swing/C# API to design and implement an application for the order managers of a furniture manufacturer. The application should have two types of users (a regular user represented by the order manager and an administrator user) which have to provide a username and a password in order to use the application.

The regular user can perform the following operations:

- Add/update/view order information (customer, shipping address, identification number, delivery date, status.).
- Create/update/delete/view product information (title, description, color, size, price, stock etc).
- Add products to order and update order value and stock accordingly.

The administrator user can perform the following operations:

- CRUD on employees' information.
- Generate reports for a particular period containing the activities performed by an employee.

3. Application Constraints

Modify your Assignment 1 source files in order to implement Model View Presenter in designing the application. Use the Factory Method design pattern for generating the reports, writing the report either in a simple text file or a xml format, depending on a system setting.

Please create a separate GIT repository for your second Assignment and continue from there, so that we have Assignment 1 and 2 separate even if the code basis will be much the same.

4. Requirements

- Create the analysis and design document (see the template).
- Implement and test the application.

5. Deliverables

- Analysis and design document.
- Implementation source files.

6. References

Martin Fowler et. al, Patterns of Enterprise Application Architecture, Addison Wesley, 2003

<http://java.sun.com/docs/books/tutorial/uiswing/>

<http://java.sun.com/j2se/1.4.2/docs/api/javax/swing/package-summary.html>

<http://www.exampledepot.com/egs/>

<http://java.sun.com/docs/books/tutorial/jdbc/basics/index.html>

[http://msdn.microsoft.com/en-us/library/54xbah2z\(VS.80\).aspx](http://msdn.microsoft.com/en-us/library/54xbah2z(VS.80).aspx)

[http://msdn.microsoft.com/en-us/library/e80y5yhx\(VS.80\).aspx](http://msdn.microsoft.com/en-us/library/e80y5yhx(VS.80).aspx)

[https://msdn.microsoft.com/en-us/library/system.security.cryptography.md5\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/system.security.cryptography.md5(v=vs.110).aspx)

XML & FileStream:

<http://msdn.microsoft.com/en-us/library/system.xml.xmlreader.aspx>

<http://msdn.microsoft.com/en-us/library/system.xml.xmlwriter.aspx>

[https://msdn.microsoft.com/en-us/library/k3352a4t\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/k3352a4t(v=vs.110).aspx)

MVP Design Pattern:

<https://msdn.microsoft.com/en-us/library/ff649571.aspx>

<http://www.c-sharpcorner.com/UploadFile/ankithakur/mvp-design-pattern-for-window-forms/>