

INSTITUTE OF INFORMATION TECHNOLOGY

# 4JVA - Enterprise Programming Project

Document content

Subject Delivery

Version 1.0 Last update: 22/11/2015 Use: Students/Staff

Author: SAD

# **Enterprise Programming**

**PROJECT** 

Conditions d'utilisations : SUPINFO International University vous permet de partager ce document. Vous êtes libre de :

- Partager reproduire, distribuer et communiquer ce document
- Remixer modifier ce document

#### A condition de respecter les règles suivantes :

Indication obligatoire de la paternité — Vous devez obligatoirement préciser l'origine « SUPINFO » du document au début de celui-ci de la même manière qu'indiqué par SUPINFO International University — Notamment en laissant obligatoirement la première et la dernière page du document, mais pas d'une manière qui suggérerait que SUPINFO International University vous soutiennent ou approuvent votre utilisation du document, surtout si vous le modifiez. Dans ce dernier cas, il vous faudra obligatoirement supprimer le texte « SUPINFO Official Document » en tête de page et préciser notamment la page indiquant votre identité et les modifications principales apportées.

En dehors de ces dispositions, aucune autre modification de la première et de la dernière page du document n'est autorisée.

**NOTE IMPORTANTE**: Ce document est mis à disposition selon le contrat CC-BY-NC-SA Creative Commons disponible en ligne http://creativecommons.org/licenses ou par courrier postal à Creative Commons, 171 Second Street, Suite 300, San Francisco, California 94105, USA modifié en ce sens que la première et la dernière page du document ne peuvent être supprimées en cas de reproduction, distribution, communication ou modification. Vous pouvez donc reproduire, remixer, arranger et adapter ce document à des fins non commerciales tant que vous respectez les règles de paternité et que les nouveaux documents sont protégés selon des termes identiques. Les autorisations au-delà du champ de cette licence peuvent être obtenues à support@supinfo.com.

© SUPINFO International University - EDUCINVEST - Rue Ducale, 29 - 1000 Brussels Belgium . www.supinfo.com



# **Enterprise Programming**

**PROJECT** 

# **SOMMAIRE**

1	co	NTEXT		
2	SPE	ECIFICATIONS		
		DATA STRUCTURE		
		INDEX PAGE		
		REGISTER AND AUTHENTICATE		
		Manage objects		
		VIEW AND EDIT HIS PROFILE		
		WEB SERVICE		
		LOG OUT		
3	3 INSTRUCTIONS			
4	4 NOTATION			
5	RE <sup>-</sup>	ΓURN		



### 1 CONTEXT

SUPINFO wants to create its own bartering service and needs you to develop it. Because it needs to be powerful and scalable you naturally choose to use Java Enterprise Edition Technologies.

This project must be done by groups, each containing 3 or 4 students maximum. Working in a bigger group will be sanctioned by penalties points.

### **2 SPECIFICATIONS**

The first version of the website will be composed of several functionalities listed below:

- As anonymous:
  - View a short description of this service and statistics in the index page
  - o Register as a new user, authenticate himself
  - Use web services
  - Search objects
  - List last added objects in SupBartering
- As a registered user:
  - Add an object
  - Delete an object
  - View and edit his profile
  - o Log out

You have to use EJB 3.1 and Servlet/JSP implementing JSP Model 2 Architecture and JPA implementing good practices (DAO, Factories, Criteria and MetaModel API...).



#### 2.1 DATA STRUCTURE

Before starting the project, draw an UML class diagram representing the JPA Entities you will need with their relationships.

This diagram will be useful for you and for the team that will develop the next version of the platform.

The class diagram must be returned in *jpeg*, *png* or *pdf* format (otherwise your Teacher will hate you!).

#### 2.2 INDEX PAGE

For anonymous the index page must show a short description of this service and statistics of use (number of users, number of objects). You are free to add others statistics.

A navigation area must be displayed on the top of all pages (login, register). For authenticated users, the navigation area displays a logout link, a link to his profile and a link to manage his objects.

This page displays the last objects stored in the database.

A search bar based on the name, price, description or type to find objects. Show a button for each item to view details. Add paging buttons at the bottom of this page if more than 10 objects are returned.

#### 2.3 REGISTER AND AUTHENTICATE

When registering, users have to give some details about them, like username first name, last name, email address, a postal code and password.

Of course, you'll have to check user input.

When the user registers him, it must log him in too.

The user can authenticate by a dedicated log in page with username and password.



# **Enterprise Programming**

**PROJECT** 

#### 2.4 MANAGE OBJECTS

An authenticated user can manager his objects.

He can add or delete an object.

To add a new object, the user have to give some details about, like a title, a description, a price, a typeof object and a picture.

The page to manage his objects displays a list of all his objects.

For each object, display a link to delete it. A confirmation is needed.

#### 2.5 VIEW AND EDIT HIS PROFILE

Users can view a profile page to change their details (except username).

#### 2.6 WEB SERVICE

This application provides a web service (REST) to list objects and search objects by name, price, description, type to find objects
This Api returns JSON only.

#### 1.1 LOG OUT

This functionality must log the user out.



## **3 INSTRUCTIONS**

- Plagiarism is forbidden.
- Make accessible his code on a public sharing platform (as GitHub) before the end of the evaluation is forbidden.

Don't abiding by these rules will result in suspension of your assessment and will be considered cheating.

### 4 NOTATION

<b>Functionalities</b>	Points
Data Structure	2
Index (objects list, paging, navigation area,)	5
Security (register, auth, log in/out, filters)	2
Search objects on index page	5
Object details page	3
Add / remove an object	3
EJB 3.1 is used	3
View and edit profile	2
Dao factory is used	2
Criteria API & MetaModel	3
Webservice list Objects	2.5
Webservice search objects	2.5
Design	2
Code Quality & Conventions	3
TOTAL	40/40

### **5 RETURN**

Return your graded exercise as a ZIP archive named as follows:

4JVA\_SupBartering\_Campus\_IdBooster.zip.

For example: 4JVA\_SupBartering\_Troyes\_10000.zip Not following this convention will result in point loss.

You will send the archive **to your Teacher SUPINFO email address and a copy to 4JVA@supinfo.com** to secure your project. Send it **before the 18**th **December 2015 before 23:59**. After that delay, your graded exercise **will not be corrected and the mark 0 will be assigned to you**.

