

# IS 523/SM 503 Assignment #4

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*Due Date: December 24, Tuesday 22:30*

In this assignment you are expected to continue the development of the limited functionality version of the Inventory Management System (IMS) described in Assignment #3. The requirements of the second iteration (i.e., Assignment #4) are as follows:

## **1) “Manage Product Orders” use case will be realized.**

- a) Write these **Use Cases** in fully-dressed format.
- b) Bounded by these use cases’ scenarios Draw a **Domain Model** using the UML class diagram notation.
- c) Draw **System Sequence Diagram(s)** for the main success scenario of each of these use cases.
- d) Draw UML **Interaction Diagrams** for the design of the system realizing these use cases. Annotate every message with the hint GRASP and/or other pattern that justifies it.
- e) Bounded by the interaction diagrams you have drawn in part (c) draw a **Design Class Diagram** in UML notation.
- f) Realize your design in an **object-oriented programming language**.
- g) You need to persist your objects. In order to **persist objects**, you may use the approach explained in the following pages.
- h) You can implement a **text-based UI** for your application.

## **2) Following artifacts should be uploaded to ODTUCLASS assignments link by the due date:**

- a) Use Cases in a fully dressed format
- b) Domain Model
- c) System Sequence Diagram(s)
- d) Interaction Diagrams
- e) Design Class Diagram
- f) Source Code
- g) Executable Program

### **Notes:**

- You are expected to **work in groups of 2-3 members**. The assignment should be submitted by only one member of the group.
- You have to adhere to the university’s policies of academic integrity.
- The penalty for late submission is 15% per day.
- The solution should be submitted in a **single zip** file via the assignment link in ODTUCLASS.
- If you have any questions, please do not hesitate to contact me at [gmert@metu.edu.tr](mailto:gmert@metu.edu.tr)