

ESOF 322 Homework #6 (25 pts)

Due: Nov 19

Question 1

In this question you will exercise your architectural skills. This is an **open-ended** question with potentially many solutions. Your answer will be graded according to the following criteria:

- The correct usage of UML syntax
- Necessary complexity to address the requested functional components
- Clear separation of concerns and modularity of the solution

Problem

Design and architect a system to represent an E-commerce solution. The E-commerce system represents a framework/platform that allows for business to business (B2B) and business to customer (B2C) communications. You may choose any domain for your E-commerce system.

Regardless of the commodities that your system facilitates, it should allow for a customer experience (B2C) that includes (among others):

- Web access for shopping (browsing, purchasing, searching, tracking, promotions, etc.)
- Authentication
- Social media access
- Dashboard experience
- Mobile access

Your system should also allow for B2B functionality that includes (among others):

- Banking (lending, credit, etc.)
- Fraud detection
- Customer lists tracking
- Marketing
- B2B transactions

Solution (provide a printout for each)

1. Design a high-level view of your architecture and provide a high-level diagram. This is a view of the system that is not done in UML, but rather is meant to represent a view for a layperson. Provide an English description of your E-commerce system (**5 pts**)
2. Construct a UML Component diagram of your solution (**10 pts**)
3. Choose **only one** Component (from 2 above) and construct a detailed UML class diagram. The class diagram should make use of at least one design pattern (**10 pts**)