ESOF 322: Software Engineering I   **DUE Date: Nov 04, 2021 (12:15 p.m.)**

Instructions (25 pts):

- No hand-written answers allowed.
- Absolutely no late assignments.
- Your assignment should be turned in to D2L

Exercise 1 (15 pts)

We have covered three design patterns in class (Strategy, Adapter, Observer). Pick two design patterns (any two that you want –you can even do research on your own and find another one you like!) and couple them.

Two design patterns are coupled when at least one class is a participant in both design patterns.

a) Draw a UML class diagram that clearly shows the coupling. Please identify which class(es) participates in multiple patterns.

b) Draw a UML Sequence diagram where you demonstrate the behavior of an instance of the coupled class from the perspective of one pattern, then from the perspective of the other pattern.

Exercise 2 (10 pts)

a) "Man in the Middle (MitM)" and "Cross-site scripting" are famous type of cyber attacks, describe each of them with an example.