**Project 1.**

The project will be done in stages.

**Stage 0**. Create a GitHub Repository or Project for sharing code. Use Microsoft Teams or Slack or Discord to manage and track group activities.

**Stage 1.** In this stage, we set up the framework for the system, and implement the business processes for populating the system, business processes for making changes to items in the database (change sale price of a product, or a client’s address) and queries that will help us test the implemented code. **This may be done without automatic ID generation by the program, i.e., user inputs a unique ID whenever a new item is added.**

**Stage 2.** Business processes to connect products with suppliers; allow clients to add items to their shopping cart, accept orders, and process orders. Queries for testing all implemented code (including all the queries in Item 9 of project description). **Automatic ID generation must be implemented at this point, as specified in the project requirements.**

**Stage 3.** Accept payment from a client, receive a shipment from a supplier, edit a specified client’s shopping cart.

**How to work on each Stage.**

**Step 1.** Identify the use cases and corresponding sequence diagrams to be made. Identify the classes and construct the conceptual class diagram and the software class diagram for the system.

**Step 2.** Share out the use cases and seq dias, roughly equally amongst all the group members. For each use case and each seq dia there should be a single responsible author (you can discuss with each other, but one person should take the responsibility). With each seq diagram, describe the algorithm and the design choices that were made. Also list the signatures of all the methods that need to be present in each class in order to implement the corresponding business process.

**Step 3.** Each author uploads their use cases and sequence diagrams into the corresponding dropbox on D2L

**Step 4.**  The modules (classes) that need to be implemented should also be shared amongst the group members. If there is a collection class, the base class and the corresponding collection class should be coded by the same member. Each group member will write a simple test program for the modules they have coded and upload all the code in the designated folder to CourseFiles (I will demonstrate samples of all this in class and upload to CourseFiles CourseInfo folder).

**Step 5.** Create a cover sheet describing how the tasks were shared. I will provide a template later.

Plan for completion.

1. Thurs Jan 30. Complete description of business processes. We will discuss in class.
2. Sat Feb 1. Conceptual class diagram and software class diagram (one per group, uploaded to drop-box in D2L).
3. Monday Feb 3. Complete detailed use cases for Stage 1. Share out use cases amongst the group members; each student submits separately.
4. Thursday Feb 6, 2:00 PM. Complete sequence diagrams for Stage 1. We will discuss in class.
5. Thursday Feb 13. Code for Stage 1 completed.
6. Sunday Feb 16. Complete detailed use cases and sequence diagrams for Stage 2.
7. Thursday Feb 20. Code for Stage 2 completed.
8. Sunday Feb 23. Complete detailed use cases and sequence diagrams for Stage 3.
9. Thurs Feb 27. Code for Stage 3 completed.
10. Tuesday March 2 submit project cover sheet for entire group (one per group). Face2face groups submit in class. Online groups upload to D2L.

**General rules:**

1. A single person is responsible for any one artifact (artifacts can be use case diagrams, class diagrams, detailed use cases, sequence diagrams, or code for individual Java classes).
2. Code written should compile and run on Centos (199.17.28.75).
3. Final completed code (for each person, and for the project) should be in CourseFiles