**INFO2080 Assignment 3**

Working effectively in a team or group is a pivotal skill that you must acquire to succeed as a software developer. For this assignment you are required to work in a 3 person team … depending on enrolment numbers, you may have to work in an undersized or oversized team.

All members of a team:

* are responsible for mastering the skills required to complete the assignment
* are expected to contribute equally
* receive the same mark

**Task 1**

Use Visual Paradigm to create a design class diagram for the Information Conestoga IT Library (CITL) case study. Your scope is the business logic layer for **Collections** (including support for ordering) **and Borrowing** (including support for returns, holds, recalls and reserves).

Entities in a design class diagram have fully specified attributes and can have methods. Constructors, getters/setters (Java) and properties (C#) provide little information beyond the obvious and are omitted unless there is a good reason to include them. Control classes have methods, but again only specify ones that are more than the basic insert-update-delete unless there is a good reason to include them.

You can start with a copy of your domain class diagram, or start with new class diagrams. Consider any changes you would make to the domain class diagram, and make those changes in your design class diagrams. Pay particular attention to the attributes of your classes.

For resources on design class diagrams see the material in the [CHRM case study](https://conestoga.desire2learn.com/d2l/le/content/63593/viewContent/1668617/View) under [*IT Programs* in eConestoga.ca](https://conestoga.desire2learn.com/d2l/home/63593). Use the technique explained in [How to Organize Diagrams with Package?](http://www.visual-paradigm.com/tutorials/packagediagram.jsp) to organize and document your diagrams.

Show:

* all attributes for each class
* associations between classes
* multiplicity
* inheritance
* abstract base class
* enumerations – show an enumeration with literals for the status of an item in the collection. Other enumerations can just be listed in a note on the diagram.
* association classes

**Task 2**

Use PlantUML (link on K:\dturton) to create design sequence diagrams for the following CITL user cases:

1. Librarian orders books (purchase order or vendor site)
2. Librarian receives shipment of books
3. Patron borrows (physical) items

**Submission**

Place your Visual Paradigm project and the images generated by PlantUML into a single folder … zip the folder and upload to the eConestoga.ca dropbox for this assignment. Hand in the marking sheet with all the team names. If handing in outside of class, staple the IT cover page to the marking sheet.