Group Assignment

Introduction

UX Gallery is specialized in selling contemporary fine art, especially lithographs and photographs. All items in the gallery are signed and numbered. Design and develop a Console-based or Window-based application (choose either one) that keeps track of the following information:

- Customers and their art purchases.
- Artists and their works that have appeared in the gallery.
- Current inventory

The application allows the user to add, delete, modify, search or list the customer, artist and artwork information. An inventory will include the purchase price of the artwork and the selling price when sold.

Based on the requirement specifications given, you need to design and create a complete class diagram with the necessary to show all the classes, their attributes, operations, relationship among classes along with navigability and multiplicities.
(Hints: Define at least four data members for each type of information. For customers, include the name, contact information, and artwork purchases and artist preferences. For artist, include the name, specialty, whether alive or deceased, and price ranges of artwork. For artwork, include the title, date purchased, date sold, and artist). Feel free to add more data members as you see fit.

In your design of the application, it must include also the features of entering and editing information and makes use of advanced object-oriented features, file handling and exception handling. Note that all information must be saved in a **text file**. At the *start* of the application execution, the information will be read from the file. At the *end* of the application execution (e.g. when the user clicks on an *Exit* button), the information will be saved into the file.

Submission

Carry out the assignment in a group of maximum 4 members and prepare a group report to answer the questions given above.

Your **REPORT SHOULD CONTAIN** the following:

1. COVER PAGE – Group member information (Put the group leader's name as the first name) and marking sheet as attached at Appendix A.
2. Introduction (System Requirement Specifications (SRS), assumption, workload allocation, etc.)
3. A complete Class Diagram using the standard UML notations.
   (Note: You must use a UML tool (any freeware downloads from internet and state the name and sources of tool) to draw your diagrams.
4. Source code (softcopy saved in a Project Folder)
5. Sample of input data (softcopy - text file)
6. Sample output (Screen shot) of your program (test cases)

Save all the documents into a folder and zip it. Name your ZIP file with the group leader's name (Eg: "LeeChongWei.zip"). Submit and upload the report to WBLE by **Friday, 21/04/2023, 5:00 pm**. Members do not need to upload.

This practical assignment will contribute 20% of your final mark. Refer to the marking sheet for the mark allocations for the report and Java program. The report will be marked for *correctness*, *completeness*, *presentation style*, and *relevant use of diagrams/tables/graphs*, etc. And the Java program will be marked for *correctness*, *completeness*, *program style*, *adequate testing* and *documentation/comments*. It's your responsibility to understand the requirements of the tasks and prepare well for your submission. You might be asked questions about the works you submit to ensure that you understand them.

Plagiarism

Note that it is important that you do not share your work with members of other groups. The consequence of doing this will result in all groups involved receiving a failing grade for the assignment. Similarly, anyone found to have committed plagiarism or cheating by copying program codes from other sources will also be given a failing grade.

Late Submission

No late submission of assignment is allowed. Assignment received after the due date without valid reasons will be penalized using the following policy: 5 marks will be deducted for every day the assignment is overdue.