In homework 3 you are required to revise homework 2 according to the instructor and TA's advice, and to write use cases of your project. Please keep all the items and content you constructed in homework 2 (except the previous project information) and make any revision if necessary. Add the use case section which is optional in homework 2. Write two to four use cases for one-person team and four to eight use cases for two-person team. If you have a lot of use cases in your project and you are looking for recommendation, you can write all of them. The TA will review all of the use cases. However, please focus on the most significant use cases first.

The following is the format of homework 3:

0. (5%) A cover page includes the project title, homework number, and team members

1. (40%) Requirement document
   
   1.1 Change history
   
   1.2 Problem statement [OOMD05, 11.3]
   
   1.3 System context diagram [OOMD05, Figure 11.3]
   
   1.4 Summary of system features [Larman02, 6.14]
   
   Please specify the new system features that you will develop in this project. If a function has been developed, you cannot list it in the system features. Only effort devoted at the course period will be graded.
   
   1.5 Use cases (new in homework 3)
   
   1.6 Non-functional requirements and constraints [Larman02, 6.14]
   
   1.7 Data dictionary [OOMD05, 12.2.3]
   
   1.8 Software environments (The original item of development language in homework 1)
2. **(45%) Domain class model**

2.1 **Domain class diagram showing only concepts [OOMD05, 12.2]**

Please keep all classes (bad and good) you extracted from requirement artifacts and construct a domain class diagram similar to Figure 12.5 of the textbook [OOMD05].

2.2 **Add associations [OOMD05, 12.2.4~12.2.5]**

To construct a domain class diagram (the good classes) shows concepts with associations. You should consider using UML notations such as qualifiers and multiplicities to make your model more conviction.

2.3 **Add attributes [OOMD05, 12.2.6~12.2.7]**

To construct a domain class diagram (the good classes) shows concepts with associations and attributes. Note that attributes should not be objects; use an association to show any relationship between two objects.

3. **(10%) Domain state model [OOMD05, 12.3.4]**

Find a class in your domain model which state is complex and cannot be adequately described by a list of operations. Then, construct a state diagram for this class.

Please login the Open Cyber Classroom using your student ID from the following URL: http://mslin.ee.ntut.edu.tw/teacher/ctchen_OOAD_2005_Spr/student/. The classroom is “OOAD 2005 Spring”. You have to submit a printed version of the homework and upload the electronic version (Microsoft Word format) to the web. **If you do not upload the electronic version, your homework will not be graded.**