

Example of How to Develop a UseCase Model/Diagram

Before developing a Use Case (U.C) diagram, you should already have identified actors of the system and a complete list of functional requirement and non-functional requirement statements. Users of a computer (application) system are people who use functions of the system to help them perform required tasks. Actors of a computer system include users, events, external systems, and time. Events could be background processes running to fetch sales orders, for example. Time can trigger a function within a system. On Blackboard, time triggered our “Sample Exam Questions” that I set up for the class prior to the midterm exam, for example. An example of an external system could be a student record system to fetch student enrollment data (e.g. MyNIU). Another example is an Accounts Receivable system for payment collection.

So, for the Blackboard Content Management System (BCMS) that we are using for this course, the followings are some of the actors we can reference. The partial Use Case Diagram does not reference all of these actors since it is a partial sample diagram.

- Instructor
- Student
- TA
- Grader
- Guest
- Time
- MyNIU
- Content System
- System Administrator

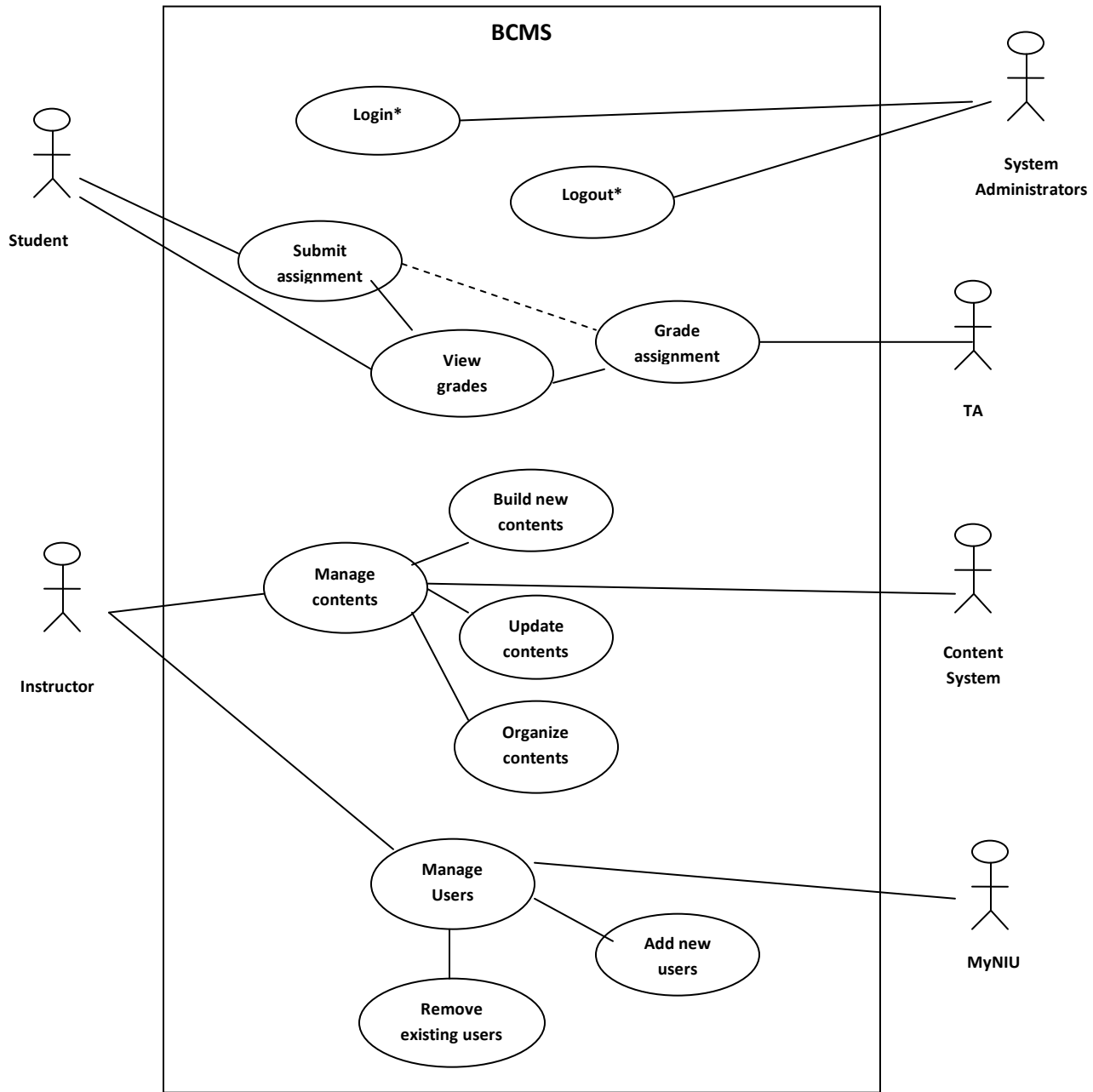
I will create a partial U.C. diagram for the BCMS based on the following functional and non-functional requirements (secured login and logout).

R1	The BCMS shall allow students (actor) to submit their assignments (use case).
R2	The BCMS shall allow students to view their grades.
R3	The BCMS shall allow an assigned TA to grade student assignments.
R4	The BCMS shall allow faculty to manage(add and remove) users for their courses.
R5	The BCMS shall allow faculty to manage course contents for their courses.
R6	The BCMS must be secured and accessible to authorized users only.

Note that each of the statements above tells us the system (BCMS), actor and use case. A use case represents a function the system offers. Actors interact directly or indirectly with use case(s). The actors I placed on the left of the diagram below represent primary actors who initiate the use cases. Secondary actors are placed on the right side of the diagram.

Next, I will develop the use case diagram using UML notations for the system boundary (a big rectangle), actors (stick figure symbol), use cases (oval symbol) association relationships (solid line), and dependency relationships (dashed line). Use association relationship if you are not sure about dependencies. Note that actors are outside of the system and use cases are inside the system.

A partial Use Case Diagram for Blackboard Course Management System (BCMS)



*Login and *Logout use cases are triggered by all users of the BCMS.