Software Engineering Homework Assignment # 1
Requirements and Use Case Diagrams

Problem Description:

The library of University of Dreamville was established in 1954 to meet the information needs of students and teachers of the fours departments (Engineering, Construction, IT, and Business Administration). It is one of the longest operating unit in the campus.

DocSys, the library Management System (LMS) of University of Dreamville was developed in late 80s. Throughout all these years no major enhancements have been made to the system in supporting the latest library service needs such as the ability to handle borrowing and returning of books using barcode scanner, book reservation, update of patron profile, advanced book searching by title or by author's name, download E-books, and loan extension. Besides, there is a lack of cataloging features that allow librarian to add and delete book records in the system. Other than those functional inefficiencies, the fact that the system was built with old technologies makes it performs badly and not scalable. It runs slower and slower due to the large and increasing volume of book and patron data. All these issues inhibit students' desire to use library services.

The university has decided to make radical changes to the DocSys LMS to address these issues. The project DocSys 2.0 is launched to manage the development and transitioning activities involved.

The new system should allow user registration (by the librarian) and provide secure login and identification of its users. It also offers different borrowing services for students and faculty members (e.g. students borrow books for 1 month, while faculty borrow books for the whole semester). Only faculty members can download E-books.

Questions:

1. List the functional and non-functional requirements of this system
2. Give the textual analysis that allows to identify the actors and use cases
3. Draw the use-case diagram (use an UML editor e.g. Visual paradigm)
4. Write the full scenarios of three use cases of your choice.

Submission:

Submit one single PDF file containing your answers to all the above questions
Email submissions will NOT be accepted
Late submission will NOT be allowed. The system will close on **Feb. 25, 23:55 sharp**.