Homework 01

1. *List of Functional requirements:*

   1. User of the library system shall be able to borrow books.

   2. User shall be able to borrow a maximum of three books from the library.

   4. The system must automatically send an email to notify the user whenever the books they requested is available.

   8. The system shall be able to delete users whose membership statuses have expired.

   List of Non-functional requirements:

   3. If User requests a book that has been borrowed, the Admin shall insert the request into the waiting list.

   5. Modifying data in the database should be updated for all admins accessing it within a few seconds.

   6. The system must run on a server with Internet Information Services (IIS).
   7. Emails should be sent with a latency of no greater than 12 hours from such an activity.

   9. The system must be written in Java.

   10. This system must be able to works on both Window OS and Mac OS.

2. **Re-write the following requirements of a Library System by following the guidelines presented in Lecture:**

   1. User shall be able to borrow books from the Library.

   2. Admin must be able to insert and remove books in the database.

   3. Admin must insert a user who asks for a book that has been borrowed in a waiting list.

   4. User shall be able to view his book borrowing history records.

   5. The system must send an email to user to remind them about the due date for returning the books.

   6. The email reminding must include the relevant information of book.

   7. All books must be searchable for both user and admin.

   8. The database must be able to store 100,000 records.

9. The system should be display the names of people who have been borrowing a book.

10. The system shall be able to perform all of requirements above.