## APPLICATION DEVELOPMENT 1 (DESKTOP)

## Project: Library Management System

The student will design and implement a library management system application that solves a real-world problem. MIS is used for decision-making, and for the coordination, control, analysis, and visualization of information in an organization.

- Students can use any programming languages of their reference.
- Student should use Object-oriented design.
- Students should make use of design patters and data structure concepts used in the classroom.
- User XML file, JSON file, or database to save data.
- Interface of the project should allow the user to login using a password as one of the following system's users:
  - Library Staff who can:
    - Add a book and save it in file.
    - Search for a book
    - Mark a book as reserved or not reserved.
    - Modify Book information.
    - Lend book to list of users.
    - Add a member.
  - User
    - Search for a book
    - Apply for membership.
    - Borrow a book (non-member can borrow before being a member)
    - Return a book.
  - Supplier
    - Search for a book
    - Sell a book.
- Perform input validation.
- Including approximately 15 user scenarios.
- Basic documentation in a README file.

## **Grading Criteria**

- The project will carry 20% of the final course grade.
- Projects need to be done by groups of 3-4 students each.
- Please compose the group and send me a Mio with the names of the group members before June 9<sup>th</sup>, 2023.

- All students of the same group will get the same grade.
- There will be a project presentation on the last two weeks.
- Submit a zipped folder of the project through Mio. It will be under the assignments section and named: "Project".
- The deadline to submit is August 8st, 2023.

For any questions feel free to reach out to me via Mio.