The American University in Cairo
School of Sciences and Eng.

Dept. of Computer Science
Summer 2025

CSCE 1102
(Fundamentals of Computing II - Lab)

Project

Project Milestones and Deliverables

Milestones Summary

Milestone	*%*	*Due*
Milestone 0	**Project Team Formation**	**Check Due dates Here**
Milestone 1	**5% (Team grade)**	
Milestone 2	**10% (4% forms, 4% user handling, 2%github)**	
Milestone 3	**10% Demo+Pres (Team grade)** **15% (12% Code, 3% github)**	

**** Project Individual grade is calculated as a percentage of team grade relative to individual's share, code quality, and understanding***

Total Project Grade = 40%

Milestone 1 - Initial Design Report

1. **GitHub Repo**
    - Create a github repo for your project and make it **private**
    - Add an info text file listing all team members, their IDs, and contact info.
    - Add your teammates as collaborators
    - Add the following accounts as collaborator: **mohismailAUC, Mina-Sawers**
2. **Project Classes**
    - List the classes of your project as shown below
    - You should include ***core classes*** (e.g. Book, LibraryMemebr,...etc), ***users classes*** (e..g Admin, Librarian,.. etc) and ***maestro class(es)*** that should manage the system operation as a whole (e.g. Library class)
    - For each ***user class***, list the functionality that should be supported by the application for this user.

Deliverables:

- Each team prepares a design report formatted as shown below:
- The report should be
    - submitted to a form (link will be provided)
    - uploaded on github

Fundamentals of Computing II - LAB
CSCE 1102- Project
Milestone 1 - Design Report

Team#: **Team Email:**

Members' Info:

Member Name	ID	Email

GitHub link: .....

Core classes

Class Name /Short description	Data members	Member Functions

Users classes and functionality of each user

Class Name /Short description	Data members	Member Functions

Maestro class(es)

List Name	Selected DS	Reasons for selecting this DS

Milestone 2 - Forms Design & User Support

1. **Project Forms - Using QT**
    - Create ALL project forms and add all required widgets to each form.
    - Except for user handling forms, other forms are NOT fully functional at this stage but **their design should be finalized too**
2. **Data Structures Selection**
    - For each list in your project, select a suitable data structure to store and handle it. For example, you may store the list of books in a vector white users list may be stored in a map
3. **User handling: Users List & Users File**
    - Signup and Login forms should be fully functional.
    - The ***users list*** (i.e the data structure your project is using to store and handle users) should be working
    - Users' information should be stored in a **file**. Manually add the admin account into that file.
    - At system startup, all user info should be loaded from the file to the ***users list***. Then all users operations should be performed on the ***users list*** not on the file
    - Signup form should store the new user into the ***users list***. Perform any needed validations before adding the new user.
    - Login should check the ***users list*** for the user's credentials and show the corresponding form according to the user type (e.g. admin Form, LibMember Form, etc)
    - Functions related to users handling in the admin form should be working. (e.g. add a user, remove a user, list users, etc)
    - When exiting the application, the ***users list*** should be written to the users file.
4. **Team work (GitHub)**
    - Regular check-ins on GitHub while working on this milestone by each member

Deliverables: (To be submitted through a form and uploaded on github)

- [Code] QT project containing all the project forms, resources and code
- Screenshots for all the forms
- A file containing some users accounts (At least the admin account) to test your code.
- Workload doc describing load distribution among team members

Milestone 3 - Fully working application

1. **Project Full Code**
    - You should finalize your application and add all functionalities to your code
    - Files for different project data should be finalized and filled with sample data to test your project
    - At application startup, all files data should be loaded to the corresponding data structures. Then all operations should be performed on DS not directly on the files. At the end, all DS should be stored back to the files.
2. **Presentation and Live Demo**
    - **Presentation**: Prepare a concise presentation ***(max 5 minutes)*** to "market" your application. Clearly highlight the main features, the problem your application solves, and what makes it unique or user-friendly.
    - **Live Demo:** Demonstrate the core functionalities of your application in real time. Show how a user would interact with your system, using realistic sample data that is preloaded into your files.
    - **Tips for a Successful Demo**
        - Practice your demo and presentation to ensure clarity and smooth delivery.
        - Make sure your sample data is ready and demonstrates all main features.
        - Test your application thoroughly to avoid technical issues during the demo.
        - Be prepared to answer questions about your implementation and design choices.
3. **Team work (GitHub)**
    - Team should make regular check-ins on GitHub while working on this milestone

Deliverables: (To be submitted through a form and uploaded on github)

- [Code] QT project for the full application
- Files containing ready sample data
- Presentation File
- Record a short video showing a demo for your app.
- Workload doc describing load distribution among team members

Milestone 3 - Evaluation Slots

For evaluation each team should attend 2 evaluation slots as follows

1. Live Demo & Presentation Slot with your instructor
    - Schedule of this slot will be posted by the instructor
2. Technical Discussion slot with your TA
    - Similar to discussion of milestone 2 where each member should explain his part of the code
    - Schedule of this slot will be posted by the TA